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The Coal Strikes.

By MARGARET GADSBY.

UNLIKE most of our coal controversies, the crisis of 1922 was nation-wide in scope and there were, strictly speaking, two strikes when, on March 31, miners in both the anthracite and bituminous areas stopped work. Anthracite and bituminous coal mining are, it must be remembered, two separate industries—the one a natural monopoly, the other characterized by unrestricted competition. The technical, financial, and labor problems of the two industries are quite distinct.

There are four times as many men engaged in bituminous mining as in anthracite. The figures are, roughly, 600,000 and 150,000. The soft coal mines can produce as many tons in a day as the hard coal mines produce in a week.

Bituminous mining is a simple "extractive" industry conducted in small units; anthracite is in part a manufacturing industry, characterized by a compact interconnected organization and large units of operation. The anthracite mines are deeper and require constant pumping of water which threatens to flood them; the coal in them is much more difficult to get at, and requires cleaning and sizing. * * *

Anthracite is a natural monopoly. Barring small amounts produced in Virginia, Arkansas, and Colorado, anthracite means Pennsylvania anthracite and it is found in a section covering only 480 square miles. The bituminous coal area is one thousand times greater—480,000 square miles and includes parts of 30 States. * * *

About 75 per cent of our anthracite coal is produced by eight companies. * * * The soft-coal lands are variously owned and the coal deposits vary widely in quality, accessibility, and convenience to market.[1]

Labor Relations.

THE development of labor relations and of labor policy in the two industries is equally diverse. Each has its separate collective bargaining machinery and its contract. In the anthracite industry there has grown up a single centralized employers' organization and a unified labor policy. Among the bituminous operators, however, is found a large group of scattered local associations entirely uncombined as to central action and without a common agency through which to formulate a labor policy.[2] Such concerted action as there has been among the operators in the Central Competitive Field has been through the temporary association of these groups for immediate bargaining purposes. Action by the local associations has been not only without harmony, but in some instances, as in this latest strike, in direct conflict.

[1] Letter from George Otis Smith to Senator Walter L. Edge, May 20, 1921.

With the miners, however, control is centralized in the United Mine Workers of America, the largest single union in the American labor movement, organized on an industrial basis, and comprising 69 per cent of all the mine workers (both anthracite and bituminous) under a single centralized and national control. Districts 1, 7, and 9 of the United Mine Workers, which include the anthracite miners, have been virtually independent in determining their own policy and entering into agreements with the operators, but the fact that these miners are a part of the general organization and subject to its general policy has enabled the miners in the two industries to work together to their strategic advantage.

The anthracite territory is practically 100 per cent organized. The stronghold of the union in the bituminous industry has been the Central Competitive Field, embracing Illinois, Ohio, Indiana, and western Pennsylvania—practically 100 per cent union—where the traditions of unionism are almost a religion. Outside this field are lesser strongholds in the southwestern bituminous region of Iowa, Kansas, and northern Texas, and in central Pennsylvania. Until recently the Rocky Mountain region and Pacific coast regions were solidly union. Certain districts of Maryland, West Virginia, Kentucky, and Alabama are also organized.[3]

Unlike the situation in most industries where union and nonunion shops may be side by side, the union and nonunion regions of the coal industry are segregated. A union district is usually 100 per cent union and in a nonunion district there are seldom many union miners. The maintenance of complete organization in certain regions has been made possible largely through the operation of the "check-off" system of collecting union dues.

Events Leading up to the Bituminous Strike.

THE present system of collective bargaining in the bituminous industry has been operating, practically uninterrupted, since 1898. Since that time, with the exception of certain years under special circumstances, representatives of the United Mine Workers and of seven local bodies of operators from Ohio, Indiana, Illinois, and western Pennsylvania (known as the Central Competitive Field) have met in conference at stated biennial intervals to adjust wages and conditions of work for that field. A basic mining or tonnage rate and a basic rate for day workers and laborers are worked out in these conferences and these rates apply to the entire central field, subject only to such modifications and differentials as may be necessary to meet varying physical and other conditions in the various mines. When this system was established the Central Competitive Field included the majority of union miners and the bulk of bituminous production. With the development of the industry outside this field, operators and miners in the outlying districts have not joined in the central conference, but upon the determination of the basic wage for the central field, miners and operators in the organized outlying districts have met in joint conferences and worked out wage agreements of their own, using the basic scale of the central

[3] A detailed account of the location of the union and nonunion territories in the bituminous fields appeared in the Survey, New York, Apr. 8, 1922, pp. 41, 42.

field as a basis upon which to construct their own scale. These biennial conferences, held in even years since 1898, have served to establish for the operators an approach to competitive equality with respect to labor costs and have tended to equalize miners' wages.

In effecting these ends to a conspicuous degree for many years, the joint conferences of the Central Competitive Field made a real contribution to the stability of an otherwise chaotic industry. Its record has been both long and honorable. On the whole, it has been one of peaceful settlement. As a demonstration of collective bargaining, it has held a notable place in the industrial history of the country, and, indeed, has been the largest scale mechanism of its kind. A study of its records discloses a commendable list of basic and far-reaching questions which have been settled to mutual advantage. The advances have chiefly been made possible because, on agreement, they went into effect generally, without putting districts or individuals at a serious disadvantage.[4]

The agreement of 1920, of which the wage award of the Bituminous Coal Commission was a part, contained the following provision:

Resolved, That an interstate joint conference be held prior to April 1, 1922; the time and the place of holding such meeting is referred to a committee of two operators and two miners from each State herein represented, together with the international officers of the United Mine Workers' organization.

In October, 1921, President Harding endeavored to bring about a conference of operators and miners to renew the agreement which was to expire the following April. The operators agreed to the conference. The miners, however, had formulated no policy and the international officers were without authority to act until the miners in convention had determined upon a plan of action and drawn up formal demands. The latter therefore declined.

Late in December of 1921 the mine workers invited the operators of the Central Competitive Field to a meeting to be held in Pittsburgh on January 6, 1922, for the purpose of selecting a time and place for the joint interstate conference. Operators of Illinois and Indiana agreed to attend the meeting, but the operators in western Pennsylvania and southern Ohio fields declined. This dissenting action before the formulation of the miners' demands definitely brought the machinery of collective bargaining in the Central Competitive Field to a standstill and the preservation of that machinery became the obviously vital issue in the strike.

The meeting was canceled. Operators in some of the districts announced wage reductions and the abolition of the "check off," to go into effect April 1. The proposed scale of the southern Ohio operators provided for reductions averaging from 31 to 46⅔ per cent. The Pittsburgh Coal Producers' Association announced that it would post a wage scale on April 1 that would carry a reduction averaging about 38 per cent for all mine workers.[5]

At the biennial convention of the United Mine Workers, held in February, the miners formulated their demands and decided upon a plan of action. They instructed the international officers to call again upon the operators of the Central Competitive Field to meet them in joint conference at as early a date as possible for the purpose of negotiating a wage agreement to become effective upon the expiration of the existing contract.

[4] Anderson, George J.: Labor Policy in the Bituminous Coal Industry. New York, 1922, p. 19.
[5] United Mine Workers' Journal, Feb. 15, 1922, p. 11.

This second invitation of the miners to meet in conference on March 2, the operators of western Pennsylvania and southern and eastern Ohio refused; the Illinois operators agreed to attend, and the Indiana operators agreed to accept only if the others could be persuaded to do so.

The dissenting operators gave three principal reasons for their refusal to meet the miners: (1) The futility of such a meeting because of their inability, under union conditions, to compete with nonunion operators; (2) their contention that the strikes and separate agreements of 1920 disrupted the interstate joint wage movement; (3) their liability to legal action, since certain operators and miners had been indicted under the Sherman antitrust law for previous joint activities.

In support of their first contention the operators stated that they could not continue to pay the prevailing scale, as the miners demanded; that wages in some of the nonunion fields were now 56 per cent lower than in certain of the union districts, and quoted the following differentials in wage rates effective on January 1, 1922, in competitive fields shipping to eastern markets.

WAGE RATES IN EFFECT JANUARY 1, 1922, IN COMPETITIVE FIELDS SHIPPING TO EASTERN MARKETS.[1]

Operation.	Central Pennsylvania.		Connellsville.	Tug River, Winding Gulf, and Pocahontas.	New River 1917 scale.
	Union.	Nonunion.			
Pick mining, net ton	$1.1431	$0.9031	$0.626	[2] $0.50 [3] .55	$0.5911
Machine loading, do	.7729	.625	.395	[2] .35 [3] .40	.4732
Cutting and scraping, do	.1600	.127	.10	[2] .08 [3] .10	.1071
Skilled inside labor, hour	.9375	.625	.625	.47	.585
Other inside labor, do	.909	.60	.518	.40	.52
Dumpers, weighmen, trimmers, do	.8875	.49	.333	.40	.52
Other outside labor, do	.825	.45	.222	.30	.50

Operation.	Somerset County, Pa.				Westmoreland County, Pa.		Upper Potomac, nonunion.
	Meyersdale.		Northern.				
	Low.	High.	Low.	High.	Low.	High.	
Pick mining, net ton	$0.67	$0.9031	$0.75	$0.98	$0.55	$0.75	$0.67
Machine loading, do	.....	.....	.535	.66	.397	.64	.455
Cutting and scraping, do	.....	.....	.11	.165	.116	.14	.08
Skilled inside labor, hour	.60	.67	.58	.625	.50	.6625	.49
Other inside labor, do	.50	.64	.50	.60	.40	.58	.45
Dumpers, weighmen, trimmers, do	.50	.64	.47	.49	.35	.5437	.43
Other outside labor, do	.50	.64	.31	.45	.30	.50	.40

[1] Coal Age, New York, Jan. 19, 1922, p. 106. [2] Wide vein. [3] Narrow vein.

With respect to their second reason for refusal—that the miners had already violated the agreement—the operators contended that the miners of the central field had abrogated their expiring contract when they struck in 1920, four months after it was signed, in order to secure a revision of the day wage fixed by the Bituminous Coal

Commission. In this connection Hon. James J. Davis, Secretary of the United States Department of Labor, made public the following statement of facts: [6]

* * * The facts as disclosed by the records are that beginning about July 20 and ending August 9, 1920, practically all of the mines in Illinois, many in Indiana, and some in Ohio were closed by a strike of day men for an increase in excess of the amount granted them by the award of the Bituminous Coal Commission, as the day men contended that they did not receive a fair proportionate increase in wages as compared with the miners in the commission's award. These local sporadic strikes, which affected directly and indirectly upward of 70,000 workers, were not sanctioned or called by the district or international officials of the United Mine Workers of America.

On July 21, 1920, representatives of the Illinois coal operators came to Washington and appealed to President Wilson to take action to check the spread of the strike, as they felt bound not to depart, "except through governmental action," from the existing contract with the men based on the wage scale fixed by the Federal Bituminous Coal Commission.

The President referred the matter to the Department of Labor, and conciliators were assigned to Springfield, Ill., to put forth every effort to induce the men on strike to return to work and to prevent the strike from spreading to mines then at work.

On July 26 President Farrington, of the Illinois Mine Workers' Union, and his associates advised the conciliators that it was useless to attempt to have the men remain at work or to have men already on strike resume work unless they had assurance from the Government that the day-wage question would be reopened for readjustment. They further stated that they could not prevail upon the men to return to work on account of statements made to them by mine foremen, superintendents, and coal operators to the effect that the day men were entitled to a higher wage rate. It was a fact that coal operators were paying bonuses to many of the day men over and above the wages fixed by the Bituminous Coal Commission, and these bonuses were an extremely disturbing factor. (See testimony of Mr. P. H. Penna, secretary, Indiana Bituminous Coal Operators' Association, before Committee on Labor, H.R., April 7, 1922, p. 353.)

On July 30, 1920, President Wilson issued a statement to the members of the United Mine Workers of America advising them that they were engaged in a strike in violation of the terms of the award of the Bituminous Coal Commission. He insisted that the striking mine workers return to work, thereby demonstrating their good faith in keeping their contract; and further, that upon their resuming work he would invite the scale committee of operators and miners to reconvene for the purpose of readjusting "any such inequalities as they may mutually agree should be adjusted."

President Lewis, of the United Mine Workers of America, insisted that the strikers return to work. After work was resumed President Wilson called the joint scale committee of the operators and miners of the Central Competitive Field to meet in Cleveland, Ohio, August 13. The conference met on the day set. The four districts comprising the Central Competitive Field were unable to agree as a unit on the amount of increase to be granted to the day workers, but a satisfactory disposition of the matters in dispute was reached by the miners and operators of each State separately.

The fact that the operators and miners did meet in joint conference and did mutually agree to readjust the day wage rates would seem to establish the fact that there was no impairment of the agreement, nor did it abrogate the obligation of the operators and miners to meet in preliminary conference prior to March 31, 1922. This is evident because in all matters except the mutually-agreed-to increase to the day men both operators and miners continued to operate under the terms of the New York agreement for 20 months thereafter.

The bill of indictments referred to by the operators as their third reason for not meeting the miners in conference was returned in March, 1920, by the Federal grand jury at Indianapolis against the officials of the United Mine Workers and operators of the central field who had entered into wage-scale agreements with the union. Five of the 18 counts contained in the indictment were sustained by Judge Anderson. These counts charged that the defendants had

[6] Coal Age, New York, Apr. 27, 1922, p. 707.

unlawfully and feloniously conspired to limit production and hinder the transportation of bituminous coal. Trial, which was set for November 8, 1920, was postponed indefinitely. On February 25, 1921, the Federal grand jury for the district of Indiana returned a new indictment in which the defendants were charged with having conspired unduly and unlawfully to restrain trade and to monopolize trade in coal. Motions were filed by the attorneys of both miners and operators asking that these indictments be quashed. No date was set for a hearing, however, and the indictments have never been pushed, but the operators asserted their belief that participation in a joint wage conference would make them liable to further action.

Representative Bland wrote to the United States Attorney General for his opinion in this matter, to which the latter replied on April 6:[7]

> While the Department of Justice has not been officially asked by anybody to state the position of the department in regard to these indictments, or in regard to seeking other indictments in case such a meeting as has been under discussion recently should be held, I have, in public statements and private conversations, very frankly stated that considering the agreement two years ago between the miners and operators in this particular field, and, it may be said, the Government's participating in that agreement, that a meeting should be held prior to the 31st day of March, 1922, I felt it the duty of the operators and miners to hold such a meeting. Both sides have known all along (informally) that it was my judgment that a meeting should be held, because of the peculiar situation with reference to the meeting which had previously been held which provided, upon adjournment, for a subsequent meeting, and to which agreement the Government was more or less a party.

Later, however, the Attorney General made a further statement which neutralized the former one but which failed to clarify the issue.[8]

Following the failure of the miners to secure a conference, Secretary Davis, with the sanction of the President, attempted to bring about a meeting. The miners agreed to the conference, but some of the operators refused, and late in March the Secretary made public the following summary of the operators' replies:

> Western Pennsylvania: The Pittsburgh Coal Producers' Association positively declined to join in the renewal of the central competitive States agreement. Therefore attendance at agreed conference deemed useless so far as they are concerned; but will meet with their own miners to negotiate an agreement without the check-off. The Pittsburgh operators have posted a wage scale, effective April 1, which calls for a reduction of 35 to 40 per cent.
>
> Pittsburgh and West Virginia Railway Coal Operators' Association and Pan Handle Coal Operators' Association: Request the right of representation in any central competitive State conference, although they had not been included in the previous conferences of said States.
>
> Ohio: The Southern Ohio Coal Operators' Association decline to join in any interstate agreement, but will meet their own employees to negotiate one. These were parties to all other central competitive States agreements. They contend that the miners' claims, in excess of the bituminous commission's award as per agreement of March 31, 1920, disrupted the interstate movement, and that methods of arriving at the interstate wage agreement have been challenged in the Federal courts as violation of the Sherman antitrust laws.
>
> The Eastern Ohio Coal Operators' Association at first declined to join in any interstate wage agreement for same reasons as Pittsburgh. Later it agreed to attend a March 2 meeting if operators of all four States attended. Five prominent coal operators of this association suggested a joint conference of all the union mines in the United States. The Central Ohio Coal Operators' Association also suggested a joint

[7] United States. Congress. House of Representatives. Committee on Labor. Hearings on H. R. 11022, A bill to establish a commission to inquire into labor conditions in the coal industry, Mar. 30, 31, Apr. 1, 3, and 4, 1922. 67th Cong., 2d sess., 1922, p. 294.

[8] This statement appears in part in the Coal Age for Apr. 20, 1922, p. 670.

conference of the entire industry, or especially of the union mines. The No. 8 Ohio Coal Operators' Association protested against a central competitive States meeting, but are willing to meet representatives of their employees and their union officers to negotiate their own scale.

The Indiana Coal Operators' Association accepted the invitation of first called meeting, January 6, also to the meeting called March 2, but this second acceptance was qualified by an expression of futility of such a conference after the declaration of miners' policy and demands framed at their Indianapolis convention on February 4.

The Illinois Coal Operators' Association, Operators' Association fifth and ninth districts, and Central Illinois Coal Operators' Association: These three associations, representing the whole State, are ready to attend any conference of the central competitive States without qualifications, and request a conference with the representatives of their own employees and State officials of the United Mine Workers of America if President Lewis fails to secure a conference of said four central competitive States before March 31, 1922.

Relative to the operators' attitude in refusing to meet in conference, Secretary Davis said in his public statement of March 31:

> There may be faults on both sides of this bituminous dispute, but the side that openly repudiates its written and signed obligations has crippled its case before the bar of public opinion.[9]

The agreement expired on March 31. The operators persisted in their refusal to negotiate with the miners on an interstate basis; the miners refused to negotiate district contracts.

The strike was called, and on April 1 there was a complete tie-up of the Central Competitive Field and of the organized outlying districts with the exception of a few localities where the agreements had not yet expired. In the anthracite field also, where negotiations had proven unsuccessful, production came to a complete standstill.

The administration announced a "hands-off" policy until such time as the public welfare should be menaced. With the exception of the attempt of Chairman Nolan, of the House Committee on Labor,[10] this hands-off policy was maintained and for three months operators and miners were left to themselves to fight out their differences.

Operators in practically all districts in the Central Competitive Field offered conferences with miners of their own districts but continued to refuse to meet on an interstate basis. In these conferences the miners refused to participate, holding out for a meeting of the entire field. The operators posted notices of wage reductions and the abolition of the "check off." [11]

Representatives of miners in outlying districts, urged to meet in district conferences and negotiate separate scales, refused to meet with the operators until the basic scale for the central field had been established and in those districts in which agreements expired the miners who had not already done so joined the strike.

Operators of Illinois and Indiana issued statements to the effect that although they had been willing in April and May to participate in State conferences they had now decided not to do so under any circumstances.[12] This left the eastern and northern Ohio districts favorable to interstate negotiations and settlements.

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[9] New York Times, Mar. 31, 1922, p. 2. Statement of the Secretary of Labor issued Mar. 31.

[10] Chairman Nolan unsuccessfully endeavored to bring about a conference, the operators still refusing to enter an interstate conference but reaffirming their willingness to meet the workers of their own districts.

[11] Coal Age, New York, Apr. 6, 1922, p. 584.

[12] Idem, June 22, 1922, p. 1059.

Thus grew the determination of both parties to fight it out to a finish.

Meantime there were various bills and resolutions introduced in Congress for an investigation of the industry and for legislation looking toward settlement. There were numerous suggestions emanating from the public as to methods of dealing with the situation. Compulsory arbitration and nationalization were among the methods suggested. Senator Lenroot proposed that the Government take over and operate enough coal mines to prevent a coal shortage. No decisive action was taken on any of these measures.

Negotiations in the Anthracite Field.

IN THE anthracite field collective barganing relations have been maintained since 1903. From that time until 1922, with the exception of 1920, when peaceable negotiations failed, there had been a record of peaceable settlement of disputes in this branch of the industry. The anthracite agreement provides for joint adjustment of wages and working conditions, a joint conciliation board, and the negotiation of agreements covering a period of years with a provision for their renewal at the end of the period.

At the tridistrict convention of the anthracite workers (districts 1, 7, and 9 of the United Mine Workers comprise the anthracite coal miners) held in January, 1922, at which the miners formulated their demands, it was voted to suspend mining on April 1 "in the event that no satisfactory agreement had been arrived at as of that date." Conferences of anthracite operators and miners did not begin until March 15, however, when the following demands were presented by the miners: [13].

1. We demand that the next contract be for a period not exceeding two years and that the making of individual agreements and contracts in the mining of coal shall be prohibited and where mechanical loading is done the committee and company officials shall have authority to establish proper rates.
2. We demand that the contract wage scale shall be increased 20 per cent and that all day men be granted an increase of $1 per day, and further that the differential in cents per day existing between classifications of labor previous to the award of the United States Anthracite Coal Commission shall be restored and that the rates applied in solid mining shall be the minimum rate on pillar work or second mining.
3. In conformity with the thought expressed in the award of the United States Anthracite Coal Commission, we demand that a uniform wage scale be established so that the various occupations of like character at the several collieries shall command the same wage.
4. We demand that the provisions of the eight-hour-day clause in the present agreement shall be applied to all persons working in or around the anthracite collieries coming under the jurisdiction of the United Mine Workers of America, regardless of the occupations, and that in the bringing of these employees under the eight-hour day their basis shall be arrived at in the same manner as the basis was arrived at in the case of pumpmen and engineers, plus the increase demanded in section 2 of this document. And, further, that inside day laborers shall work on the basis of eight hours underground.
5. We demand time and half time for all overtime and double time for Sunday and holiday work.
6. We demand that the next contract made between representatives of the anthracite operators and the United Mine Workers of America shall contain a standard check-off provision.

[13] Anthracite Bureau of Information. The anthracite strike of 1922. Philadelphia [1922], pp. 5 and 6.

7. We demand that all dead work shall be paid for on a uniform consideration basis and that where more than one miner is employed they shall all receive the same rate.

8. We demand payment for all sheet iron, props, timber, forepoling, extra and abnormal shoveling, and cribbing, and where miners are prevented from working on account of lack of supplies that they be accorded the opportunity of making a shift at some other work at the consideration rate.

9. We demand in the settlement of grievances that the aggrieved parties shall have the right to demand settlement upon a basis of equity, and if such equity settlement is requested, the conditions of 1902 shall not enter into or prejudice the case.

10. We demand that a uniform rate of 17 cents per inch be paid for all refuse in all kinds of mining up to 10 feet wide and a proportional rate be applied for over 10 feet, with the understanding that this is to be a minimum rate not affecting higher rates than exist.

11. We demand that where coal is paid for by the car it shall be changed and payment shall be made on the legal ton basis of 2,240 pounds and that dockage shall be eliminated.

12. We demand that where jack hammers are necessary and of advantage in the work that they be furnished free of charge to miner or miners, including the power necessary to operate the machine.

13. We demand a more liberal and satisfactory clause in the agreement covering the question of miners who encounter abnormal conditions in their working places and that to correct this situation the following quotation, "Unless otherwise directed by the foreman," shall be stricken from the agreement covering this particular subject, and that the consideration rate at each colliery should be equivalent to the average daily earnings of contract miners under normal conditions.

14. We demand that the wage schedules be brought up to date, containing all new rates and occupations, and that copies be supplied the committees and filed with the board of conciliation.

15. We demand that carpenters and other tradesmen be paid the recognized standard rates existing in the region, which rate should not be less than 90 cents per hour and which trade rate should be paid to all those who have served four years at their particular trade.

16. We demand that in retrenchment, the laying off of men, and in the retiring that seniority shall apply.

17. We demand that employees of stripping contractors be brought under the general agreement on their present basis of wages and conditions plus the increase demanded in section 2 hereof.

18. We demand that powder be delivered to the miners at their working places, or as convenient as possible to the working place, in a safe and careful manner by the company.

19. We demand that full eight-hour opportunity be given to employees at collieries which have been working as a general schedule on a six and seven hour day, and that where eight-hour opportunity is denied to those employees their wages shall be readjusted—this demand is based upon normal working conditions and does not contemplate the inclusion of accidents.

To these demands the operators replied: [14]

It should be stated in the first place that the anthracite operators are not unwilling to continue contractual relations with the United Mine Workers of America, but, on the contrary, are willing to continue the practice of dealing with that organization as representing their employees, provided that the form of contract is in accord with the principles laid down by the Anthracite Coal Strike Commission appointed by President Roosevelt in 1902, and the Anthracite Coal Commission appointed by President Wilson in 1920; and provided further, that the jurisdiction of the board of conciliation, that has been a potent factor in the preservation of peace in the anthracite region, shall not be questioned or abridged.

The operators are ready to consider and discuss any propositions relating to wages and working conditions submitted by either party.

When it comes to matters affecting the cost of production, there is another party to be considered, viz, the buyer. Any adjustment which is not satisfactory to the buyer must inevitably fail, for in that event production can not be distributed and the miner will then lose his opportunity for employment.

The interests of all parties will best be conserved by steady work for the miner, maximum production at the mines, and the widest possible market for the product.

[14] Anthracite Bureau of Information. The anthracite strike of 1922, Philadelphia [1922], p. 8.

To secure this a reasonable cost of production is necessary. Anthracite is the only basic commodity which has not receded in cost of production since the war. In fact, costs of anthracite production to-day are far above the war-time peak.

The deflated pocketbook of the buyer can not continue to pay the present prices. Economy is being practiced by the consumer and various substitutes for anthracite are being used. But for the fear on the part of the public of a suspension April 1, the recent movement of anthracite would have been even less than it was, with the result of short-time employment throughout the region. The economic situation to-day not only forbids any increase in costs and prices but compels a reduction.

Anthracite labor is the only group in this country which has not sustained a decrease in wages in line with the general readjustment in other industries, nor has it suffered a material decline in the opportunity for steady work.

Deflation in the cost of production, 70 per cent of which is represented by mine labor, is imperative. The anthracite operators, after most careful thought, can see no alternative. Readjustment of the wage rates is the first necessary step to reduce the cost of anthracite to the consumer and to insure continued stability in the industry.

It is obvious, then, that prosperity and steady work in the anthracite fields must cease unless the price of anthracite coal can be reduced to a figure which the consumer can pay.

We are confident that if in our negotiations this absolutely controlling factor is kept constantly in mind, we shall be able to reach a conclusion which will promote the welfare of all concerned. And with this hope we are prepared to consider through the negotiating committee any matter pertaining to wages and working conditions presented by either party.

No agreement having been reached on March 31 the anthracite miners quit work. On May 18 the operators presented counter-demands providing an average decrease of approximately 21 per cent, and a five-year contract, subject to annual adjustments as to wage rates. In case of failure to agree upon the rate by March 1, 1923, the operators proposed that the determination of a proper rate be left to an arbitration commission of five persons to be selected by the presiding judge of the United States Circuit Court of Appeals for the Third Judicial Circuit, the personnel to consist of: (1) A mining engineer and geologist; (2) an economist; (3) judge of United States District Court for Eastern District of Pennsylvania; (4) labor representatives, and (5) operators' representatives.[15]

The miners rejected this proposal and the conferences were adjourned until June 2, when the operators proposed that all questions at issue be submitted to an arbitration commission appointed by the President.[16] On June 14 the miners rejected the arbitration plan and proposed a settlement on the following conditions: (1) Acceptance by operators of miners' request for actual eight-hour day for day men and for complete union recognition (meaning the closed shop and check-off), and (2) that the existing rates of pay be taken as a starting point for future deliberation.[17] These proposals the operators rejected on the same day. The joint conferences then adjourned subject to call from either side. Thus after three months of conferences there was complete deadlock. Meantime 99½ per cent of the voting membership of the miners voted to convert the suspension pending agreement into a strike.[18] Thus on July 1 the stoppage became a formal strike and peace was no nearer the anthracite industry than on April 1 when production was suspended.

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[15] For full text of plan see Anthracite Bureau of Information. The anthracite strike of 1922. Philadelphia [1922], pp. 17–21.

[16] For full text see idem, pp. 23, 24.

[17] For full text of miners' statement refusing arbitration and making these proposals see Coal Age, New York, June 22, 1922, pp. 1059, 1060.

[18] United Mine Workers' Journal, Indianapolis, July 15, 1922, p. 7.

Issues in the Bituminous Strike.

THE refusal of the bituminous coal operators to meet the miners furnished the immediate occasion for the strike, but the causes lay deeper: (1) In the issues centering about absolute divergence of opinion of the operators and the miners as to the desirability of the interstate or "national" agreement, and (2) in the fundamental maladjustments of the industry.

The National Agreement Issue.

As to the desirability of the national agreement, there was on the part of some of the operators—

> The fixed belief, held quite generally by coal men throughout the country, that mine labor as well as organized labor in other industries are demanding negotiation in unwieldy units. Adequate and proper representation for wage agreement negotiations for such large areas give a conference body of such size and diversified opinion that the original intent and purpose of collective bargaining is made impossible.
>
> This is not a new idea either with the operators. It is based on ample precedents of which the public have apparently already approved. The United States Steel Corporation, through Judge Gary, refused to negotiate with others than his own employees. The railroads of different sections of the country have sought and clamored for permission to negotiate and adjust wage matters with their own employees or at least in their own localities, which latter they are now doing in regional conferences inaugurated by Secretary Hoover. Nor could there be given any clearer evidence than the recent demonstration of railroad labor of the futility of such massive and country-wide effort on the part of organized labor attempting to force the continuance of an unnatural wage level through sheer strength and an alleged ability to paralyze all industry through the use of so-called "economic power." [19]

The miners were bound by the policy determined at their biennial convention and reaffirmed at a subsequent meeting of the policy committee, which forbade the making of separate agreements until the basic agreement for the central field had been determined. This attitude on the part of the miners was the result of their belief that the operators' insistence upon separate agreements was due to the desire on the part of some of them to disrupt the miners' union. This opinion of the miners has been both upheld and contradicted. According to the August, 1922, issue of Babson's Labor Forecast (Bulletin L–199), "The real issue from the first has been whether the miners' unions were to remain a dominating factor in the coal industry. The operators, or many of them, wished to get rid of that domination." The Coal Age, on the other hand, denied that disruption of the union was sought. "Those who hold to the belief that the policy of the operators against a Central Competitive Field agreement is a policy aimed at the destruction of the United Mine Workers are misinformed. In all this land there are no truer friends of the union coal miner, no stauncher advocates of collective bargaining, than among the operators of the southern Ohio field. Yet it was the southern Ohio operators who to a man first took the stand that has prevented a central field conference." [20] Obviously the operators were divided on this issue, some of them maintaining throughout their willingness to meet the miners on the old basis, and

[19] Coal Age, New York, Mar. 2, 1922, p. 381.
[20] Idem, July 6, 1922, p. 2.

it was to the extremists among them to whom the President referred in his address before Congress,[21] when he said:

> In the weeks of patient conference and attempts at settlement I have come to appraise another element in the engrossing industrial dispute of which it is only fair to take cognizance. It is in some degree responsible for the strikes and has hindered attempts at adjustment. I refer to the warfare on the unions of labor.

Whether or not there was a determination on the part of some of the operators to disrupt the union, it is not the purpose of the present article to determine. The fact remains that the miners believed this to be their motive and the unprecedented solidarity and determination of the mine workers to win the strike was their reaction to this belief.

To one Pennsylvania coal association, the fundamental issues in the strike involved the "check-off" and the district wage agreement:[22]

> 1. The operators are asked to surrender unconditionally their fundamental principle of district wage agreements before appearing before this commission. * * *
> 2. We protest against the recognition made by the President's plan of the compulsory collection of union dues from the pay envelopes of all their employees under the iniquitous "check-off" system. * * *
> We are compelled to waive our two fundamental contentions before the appointment of a commission, and the remainder of our case which might be brought before the commission is of comparatively little moment to us, or to those we represent.

The Check-Off.

The "check-off" is an assignment of wages. A union miner authorizes his employer to deduct from his pay each month an amount sufficient to pay his union dues. The employer makes the deduction and remits the amount to the union.

This system, which is not peculiar to the bituminous coal industry, has been in existence since the beginning of collective bargaining relations in the industry and has been applied in principle not only to union dues, but also to rents, supplies, medical provision, etc.

The miners believe this system is vital to their organization. The injection of this issue at this time therefore strengthened their belief in the attack on their union and complicated the situation. Undoubtedly this system has been a source of irritation to the operators for some time.[23]

Maladjustments in the Industry.

The miners asked not only for the maintenance of the prevailing wage schedules, but also for a six-hour day and a five-day week,[24] and in this latter demand they asked not for less work but for more.

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[21] President's address to Congress on the industrial crisis, Aug. 18, 1922. Cong. Record, vol. 62, Aug. 18, 1922, pp. 12578-12581.

[22] From letter of a Pennsylvania association to President Harding rejecting his arbitration plan. Coal Age, New York, July 20, 1922, p. 102.

[23] See article "Enjoining the check-off system of the United Mine Workers," in MONTHLY LABOR REVIEW, February, 1922, pp. 128-131.

[24] The formal demands of the bituminous miners as adopted on Feb. 18 at their biennial convention were, according to the United Mine Workers' Journal of Mar. 1, 1922 (p. 8), as follows:
(1) Maintenance of present basic wage schedules.
(2) Adjustment of inequitable differentials within and between districts.
(3) Six-hour day and the five-day week.
(4) Overtime at the rate of one and one-half with double time for Sundays and holidays.
(5) Weekly pay day.
(6) Elimination of the automatic penalty clause.
(7) Two-year contract.

The United States Geological Survey reports that during the boom period a miner can expect to work on the average three or four days a week and during depressions he may be reduced to two or three. In 1921 the Geological Survey reports the bituminous miners averaged 2.8 days per week. This idle time of the miners is not confined to one season or period during which they can find employment elsewhere. The men are always subject to call. They have therefore urged the maintenance of their prevailing daily wage so that their annual incomes may be sufficient for their needs.[25]

The bituminous producers are engaged in an industry overdeveloped by a yearly capacity of at least 150,000,000 tons and with an excess of perhaps 150,000 men,[26] and peculiarly sensitive to business inflations and depressions, with a resultant irregularity of operation and "cutthroat" competition. Union operators have to meet the competition not only of other union operators but of nonunion producers. In periods of depression such competition is particularly keen. The union operator unable to sell at the price offered closes down his mine. The nonunion operator lowers wages and sells at a lower price.[27]

To the high costs of production in busy periods must be added the cost of maintaining idle mines during idle periods.

The engineering problems of the industry are unusually perplexing.[28] The productive plant use in the coal industry as against 100 per cent plant utilization (24 hours for 310 days) possible in some industries, has been estimated to be 18 per cent, the average for all industries being 33 per cent to 45 per cent.[29]

The miners urge a living wage, the operators urge a decrease in mining costs, the public urges lower coal prices. The justice of all of these demands has forced upon the public and all concerned the fact that there are fundamental evils in the present system of production and distribution of our coal supply. It is these fundamental ills which are responsible in large measure for the industrial crises in the coal industry. The President thus expresses it in this message to Congress:[30]

* * * There are fundamental evils in our present system of producing and distribution which make the wage problem difficult. In the bituminous coal fields are vastly more mines than are requisite to the country's needs, and there are 200,000 more mine workers than are needed to produce in continuous employment the country's normal requirements. By continuous employment I mean approximately 280 working days in the year. In many instances last year men were employed less than 150 days, in some cases much fewer than that. In the overmanned sections men divide the working time, and high wages are necessary to meet

[25] Authorities differ as to the average earnings of the miners. The Central Coal Association estimated the average annual earnings of all employed in the mining industry in 1921 at $1,319.42. (See Coal Age, Apr. 20, 1922, p. 667.) The miners estimate the average yearly earnings for 1921 to range from $560 to $763. (See United Mine Workers' Journal, Feb. 15, 1922, p. 7.) The United States Bureau of Labor Statistics estimated the average earnings during the year ending Oct. 31, 1921, assuming each person to have worked every day of operation and to have earned as much per turn as during the pay period taken in the investigation, at $1,357.40. (Conditions in the bituminous coal fields. Report of Ethelbert Stewart, Commissioner of Labor Statistics. Senate Doc. No. 171, 67th Cong., 2d sess.)

[26] U. S. Geological Survey. Fluctuations in coal production—their extent and causes. Washington, 1920, p. 1.

[27] The two obvious solutions of this difficulty are (1) putting entire industry on nonunion basis or (2) on a union basis. For discussion of relative merits of these solutions see Atlantic Monthly, October, 1922. "The battleground of coal," by J. M. Cain.

[28] For recent discussion of engineering problems in the mining industry see Scientific American, October, 1922, p. 252.

[29] Shurick, Adam T.: Coal Mining Costs. New York, 1922, p. 163.

[30] Congressional Record, vol. 62, Aug. 18, 1922, p. 12579.

the cost of the barest living. Interrupted transportation, sorely broken employment, the failure to develop storage against enlarged demands, and inadequate carrying—all these present problems bearing on righteous wage adjustment, and demand constructive solution.

Effectiveness of the Strikes.

RESPONSE to the strike call in both industries was the most complete in the history of mine strikes in this country. For the first time anthracite and bituminous miners went on strike simultaneously. Nonunion territory, notably that in the Connellsville coke region, was invaded, and in fields hitherto unorganized miners went out on strike. Not only the solidarity of the workers in the industry but the support of the strike from labor in other industries was unprecedented.

An estimate of the number on strike made by the United States Department of Labor early in August indicated that approximately 610,000 of the 795,000 miners employed before the strike were out at that time. The following table shows the status in the several States: [31]

	Employed before strike.	On strike.
Alabama	30,000	0
Arkansas	5,000	4,000
Colorado	15,000	4,000
Illinois	90,000	90,000
Indiana	30,000	30,000
Iowa	15,000	15,000
Kansas	13,000	12,000
Kentucky	40,000	5,000
Maryland	7,000	5,000
Michigan	3,000	3,000
Missouri	12,000	11,000
Montana	5,000	5,000
New Mexico	4,500	1,000
Ohio	50,000	50,000
Oklahoma	10,000	9,000
Pennsylvania, bituminous	175,000	155,000
Pennsylvania, anthracite	155,000	155,000
Tennessee	12,000	4,000
Texas	4,500	2,000
Utah	4,000	1,000
Virginia	12,000	0
Washington	5,000	2,000
West Virginia	90,000	40,000
Wyoming	8,000	7,000
Total	795,000	610,000

Among those listed as being at work are about 10,000 pump men and firemen who are permitted by the unions to remain on duty.

Production of anthracite coal was virtually suspended, only the pump men and firemen remaining on duty.

In the bituminous field, however, in spite of the completeness of the strike, production the first week of the strike totaled 3,835,000 tons. As prices went up and it became profitable for nonunion producers to operate at capacity, weekly production rose and by the end of June it totaled 5,363,000 tons. The average weekly consumption was 8,000,000 tons. Thus at that time, from the

[31] United Mine Workers' Journal, Indianapolis, Aug. 15, 1922, p. 11.

standpoint of production, the strike was hardly 40 per cent effective. Then the railroad strike became a factor and production dropped appreciably.

Production of bituminous coal for the strike period, compared with that of the same period in 1921, was as follows:

ESTIMATED WEEKLY PRODUCTION OF BITUMINOUS COAL IN THE UNITED STATES IN IDENTICAL WEEKS, 1921 AND 1922.[1]

Week ending—	1922	1921	Week ending—	1922	1921
Apr. 1	10,469,000	5,822,000	June 24	5,363,000	7,704,000
Apr. 8	3,835,000	6,120,000			
Apr. 15	3,656,000	6,528,000	July 1	5,227,000	7,658,000
Apr. 22	3,575,000	6,815,000	July 8	3,678,000	6,165,000
Apr. 29	4,175,000	6,984,000	July 15	4,123,000	7,401,000
			July 22	3,692,000	7,380,000
May 6	4,164,000	7,391,000	July 29	3,952,000	7,319,000
May 13	4,433,000	8,009,000			
May 20	4,484,000	7,989,000	Aug. 5	4,313,000	7,186,000
May 27	4,889,000	8,166,000	Aug. 12	4,606,000	7,771,000
			Aug. 19	4,609,000	7,708,000
June 3	4,616,000	6,835,000	Aug. 26	6,736,000	7,753,000
June 10	5,136,000	8,010,000			
June 17	5,013,000	7,551,000	Sept. 2	9,359,000	7,606,000

[1] Weekly reports of the U. S. Geological Survey, Nos. 249 to 271.

President's Effort to Settle the Strikes.

BY JULY 1 the lack of anthracite and the fast-fading soft-coal stocks led to a change in the "hands-off" policy of the administration. The President invited representatives of bituminous and anthracite operators and of the United Mine Workers to a conference in Washington and asked them to try to find a solution of their difficulties. The Government took no active part in these conferences until July 10, when it became evident that they were accomplishing nothing. On July 10 the President proposed the following plan of settlement:

(1) Miners to return to work on the same terms and conditions as those in effect on March 31, including the check-off.

(2) A coal commission to be created immediately, to consist of three representatives of the mine workers, three of the operators, and five to be named by the President, which shall make final determination within 30 days, if possible, of the terms and conditions of labor for the period ending March 1, 1923.

(3) The commission to make an exhaustive investigation of every phase of the coal industry, to reveal every cost of production and transportation, and to make recommendations looking to the establishment and maintenance of industrial peace in the coal industry, the elimination of waste due to intermittency and instability, and suggest plans for a dependable fuel supply, the President to ask Congress for the necessary legal power and funds to carry on the investigation and the commission to make its recommendations in time to allow for their use in the settlement of relations after March 1, 1923.[32]

The anthracite operators virtually agreed to the President's proposal, suggesting (1) that because of the wide difference in problems confronting the two industries a separate commission be appointed for the anthracite industry consisting of one representative of miners,

[32] For specific terms of settlement proposed, and interpretation thereof, see United Mine Workers' Journal, Indianapolis, July 15, 1922, p. 3.

one of operators, and three appointed by the President, and (2) that it be made mandatory upon the commission to determine the wage scale to expire in March, 1923, and that its decision in this regard be handed down on or before August 10, and (3) that the commission be "empowered and directed to devise a method by which periodical disturbances may be avoided and by which wages and working conditions may be automatically adjusted by negotiation, if possible, and if not, by such machinery as the commission shall set up; and that its decisions in this regard shall be binding on both parties."

The bituminous operators agreed upon the general principle of arbitration but were unable to come to a unanimous agreement upon the arbitration plan proposed by the President. The majority favored acceptance, but operators of the Pittsburgh district, of Indiana, and a part of Ohio refused.[33]

The miners, although in accord with the proposal for the establishment of a commission to investigate the industry, stated it to be their belief that the wage issue should not be injected into the scientific investigation of the industry. They refused the President's proposal on the following ground:[34]

> The mine workers desire to point out that the coal operators who have been in attendance at the recent conferences assembled by you, and to whom you have submitted the plan for arbitration of the coal strike, are only partially representative of the producing interests affected by the present suspension of mining. Operators representing nearly 50 per cent of the tonnage in strike fields where production is stopped have not been in attendance at such recent conferences and we have no information that the proposed plan of arbitration has been submitted to them by any governmental agency. We are further advised, through public and private information, that these interests have no intention of coming within the purview of the provisions of your plan of adjustment. Under such circumstances, it is futile to believe that any general settlement can be made. It is manifestly unfair to attempt to exact from the mine workers' representatives commitment to an arbitration plan while at the same time powerful operating interests employing hundreds of thousands of men now on strike are left free to follow their own selfish impulses and escape responsibility in the premises. We feel assured that your excellency transmitted this plan of settlement with the sincere hope that the present strike could be adjusted upon a basis of national scope. We find upon examination and analysis, however, that even the acceptance of the plan by the mine workers would bring about only a partial settlement, leaving the public to be embarrassed and industry further dislocated by a continuance of the strike situation in vast coal-producing areas. The mine workers can not under these circumstances lightly consider the utter abandonment of more than 200,000 of their members to the whims and caprices of hostile employing interests who are publicly committed to the policy of destruction of collective bargaining in the industry.

Upon receipt of these replies, having no authority to demand compliance, the President dismissed the conferences and invited the producers to return to their mine properties and resume operation. Assurances of Government protection were communicated to the governors of the coal-producing States.

Little or no new production followed. The miners remained on strike. In Indiana and Illinois license laws precluded attempts to use volunteer labor. In the anthracite fields a State law provides that no coal can be cut except by licensed miners, who must have two years' experience in a hard-coal mine before they can obtain a certificate of efficiency. There are about 40,000 to 50,000 men in the anthracite mines who cut the coal; the other 100,000

[33] The letter of acceptance and the refusals of the Indiana and Pennsylvania associations to accept the proposal were published in the United Mine Workers' Journal of Aug. 1, 1922, pp. 16, 17.
[34] United Mine Workers' Journal, Indianapolis, Aug. 1, 1922, p. 5.

mine workers can not work if the miners do not produce coal. The anthracite operators made no attempt to open their mines.

Members of the Pittsburgh Coal Producers' Association unanimously decided to resume operation of their mines and issued a statement that "work at the mines will be resumed at the wages in effect in November, 1917. The practice of collecting union initiation fees, dues, and assessments, known as the 'check-off' will no longer be continued." [35]

Illinois, Ohio, and Indiana producers made no attempt to operate their mines.[36] The Governor of Indiana invited operators and miners to a State conference, but the miners refused to meet the operators except on an interstate basis.[37] This attempt failing, the Governor of Indiana declared martial law and called for volunteers to work the mines under State guards.[38] National Guard troops were ordered out in Pennsylvania and Ohio. Infantry and machine-gun units as well as cavalry were mobilized.[39] The Governor of Michigan took steps toward State control of mines in that State.[40] None of these attempts was successful, however, and practically no new production followed. The administration, besought on all sides to end the strike, was powerless to act.

Truce in the Bituminous Coal Industry.

ON AUGUST 1 President Lewis, of the United Mine Workers, again invited the operators of the Central Competitive Field to meet the miners, this time in Cleveland. Operators were divided in their response to this call, and only about 20 per cent of the tonnage of the central field was represented when the conference assembled. This number was enlarged, however, by operators from other States and producers from Pennsylvania, West Virginia, Maryland, and Michigan, with a total annual output of some 60,000,000 tons, were admitted to the Cleveland conference where the following agreement was reached on August 15:

TEXT OF THE AGREEMENT.

1. All mines of operators represented in this joint conference which are now on strike are to be opened immediately upon the execution of supplementary contracts extending to March 31, 1923, on the terms, provisions, and conditions of the contracts affecting such mines as they respectively existed on March 31, 1922, except as to renewal or continuation clauses in such contracts.

2. The participants in this conference agree to send, and this conference invites the bituminous coal operators of the United States to send, representative delegates from coal-producing districts or from substantial groups of operators, which delegates shall, as far as possible, be representative of the bituminous coal industry of the United States, such delegates to assemble in joint conference in Cleveland, Ohio, October 2, 1922.

This joint conference shall appoint a committee of equal numbers of representatives of operators and miners, which committee will formulate a method to be followed by the bituminous coal industry in the negotiation of wage-scale agreements to become effective April 1, 1923, and the method so formulated shall by the committee be reported to the joint conference to be held January 3, 1923, as hereinafter provided.

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[35] New York Times, July 20, 1922, p. 1.
[36] Idem, July 24, 1922, p. 1.
[37] Idem, July 23, 1922, p. 3.
[38] Idem, Aug. 3, 1922, p. 1. The Coal Age of Oct. 12, 1922, reported that the State of Indiana mined approximately 17.54 tons of coal at a cost, per ton, including the cost of maintenance of State troops, of $37.35.
[39] Idem, July 21, 1922, p. 1.
[40] Idem, Aug. 2, 1922, p. 3.

3. The joint conference convening October 2 shall further select a committee of inquiry, the members of which shall be of commanding public reputation for character and ability, and whose personnel shall be approved by the President of the United States. The duty of this committee shall be to develop promptly all of the pertinent facts in regard to the industry for the benefit alike of the public, the operators, and the mine workers. Such investigation shall include every phase of the industry deemed material by the committee of inquiry and such committee shall be furnished with all information desired and aided in every manner possible by the operators and miners alike.

In the event such joint conference shall fail to agree upon the members of such committee of inquiry by October 10, 1922, it shall petition the President of the United States to appoint the members thereof in his discretion, and in the event of a vacancy the President is requested to fill same by appointment. The cost of such committee of inquiry shall be paid by the industry, one-half by the operators participating in the joint conference and one-half by the United Mine Workers of America.

Such committee, after developing all the facts, shall make such recommendations as it may deem proper and advisable and shall so far as possible embody these recommendations in a report to be submitted to the joint conference to be convened January 3, 1923, as hereinafter provided.

In order to reach a final and proper determination of the controversy in the bituminous coal industry, for the benefit of the miners and operators, and the public as well, the following principal points are presented for consideration by the committee of inquiry:

(*a*) The wage rate in any district shall, as far as reasonable, be properly competitive within the mining industry and shall at the same time be fully compensatory to the miners, being sufficient to afford not only a living wage but also to allow reasonable opportunity for accumulating savings.

(*b*) The encouragement of a proper spirit of obligation and responsibility on the part of all parties toward contractual obligations and the establishment of proper machinery, both local and national, for prompt determination and settlement of any points of dispute in any local, State, or district contract without resorting to strike or lockout.

(*c*) The determination of a proper policy to encourage efficiency of operation not only on the part of mine management in the mercantile operation of the mine, but also on the part of individual miners in the performance of their daily work.

4. The participants of this conference agree to send, and this conference invites the bituminous coal operators of the United States to send, representative delegates from coal-producing districts of substantial groups of coal operators, which delegates shall as far as possible be representative of the bituminous coal industry of the United States, such delegates to meet in joint conference January 3, 1923, at such place as may be designated by the joint conference held October 2, 1922. This joint conference shall receive the report of the committee appointed in conformity with paragraph 2 and shall finally determine the method to be followed by the participants in the conference in the negotiation of wage-scale agreements to become effective April 1, 1923.

To the end that new wage-scale agreements to be effective April 1, 1923, shall be determined upon as speedily as practicable and further strikes be thereby averted, the method of negotiating the wage-scale agreement which shall be determined upon by said joint conference shall provide that such machinery as is created by it to develop a new wage-scale agreement shall commence to function not later than January 8, 1923. The wage-scale agreement concluded by such machinery shall be effective April 1, 1923, and shall be in effect during such time as it may determine.[41]

Supplementary agreements approving and accepting the policy set forth in this contract were immediately entered into by the operators present at the conference and production was immediately resumed by these producers. Other operators soon fell into line. Central Pennsylvania operators on August 23 signed an agreement conforming to the Cleveland agreement, but with an additional clause providing for the continuance of work for 30 days after March 1, 1923, in case an agreement had not been reached by that time. Indiana operators "accepted" but did not "approve" the plan.

[41] United Mine Workers' Journal, Indianapolis, Aug. 15, p. 5.

Illinois operators signed. Operators and miners of Oklahoma and Arkansas came to a settlement on August 23 on the basis of the Cleveland contract. When, on August 30, the Pittsburgh Coal Co. signed, practically the entire 69 per cent of the bituminous industry which is organized went back to work on the basis of the Cleveland contract.

Following the signing of the Cleveland contract, operators in the nonunion districts posted wage increases. Connellsville wage increases brought back the 1920 peak scale. Practically all of southern West Virginia is now on a war-time wage basis.[42] Wage increases affecting about 26,000 men were made in the Alabama coal fields on August 26.

The peace table provided for in the contract was set for October 2, when representatives of the United Mine Workers and of the operators assembled to consider ways and means of negotiating their next working agreements and contracts. Although not all of the operators obligated themselves to attend this conference, practically every important producing district in the country was represented. When the conference was assembled, operators from 15 mining districts, representing about 275,000,000 tons' annual production, were present. The three main objects of the conference were (1) the creation of a fact-finding commission, (2) the setting up of a joint committee to recommend ways and means for reaching future agreements, and (3) the reply to the request of Secretaries Davis and Hoover for a panel of 20 names from which the personnel of the new Federal Coal Commission might be drawn.

It was decided that the method of making future contracts between operators and miners should be worked out by a committee made up of two miners and two operators from each of the 15 districts attending the conference, with the understanding that other districts might come in, this committee to report on or before January 6 to another joint national conference. It was understood, however, that its recommendations were not to be binding and that no definite action should be taken until after the Federal Coal Commission had made its report. It was decided that no fact-finding commission should be appointed within the industry, the joint conference voting to support the Federal Commission. The operators refused the request for a panel of names for the Federal Coal Commission, stating that they had "full confidence in the wisdom and fairness of the President." The miners chose such a panel and telegraphed their selection to the President.

Anthracite Settlement.

AFTER the settlement of the strike in the bituminous industry, conferences in the anthracite field were renewed, at the request of the President, communicated to the operators through Senator Pepper, the operators offering to resume operations on the old scale until March 31 pending arbitration of the wage question. The miners refused to arbitrate and proposed stabilization by making a contract to run until March 31, 1924, or longer. The producers agreed to a long-term contract for all conditions except wages, which, they contended, should be arbitrated at stated intervals. The miners

[42] Coal Age, New York, Sept. 7, 1922, p. 370.

reiterated their refusal to arbitrate and the conference broke up on August 22 without agreement.

Through the efforts of the President, Secretary Davis, and Senators Pepper and Reed of Pennsylvania, a new proposition was made to operators and miners which finally resulted in the following agreement on September 2:[43]

This agreement, made this 2d day of September, 1922, between districts 1, 7, and 9, United Mine Workers of America, parties of the first part, and the anthracite operators, parties of the second part, covering wages and conditions of employment in the anthracite coal fields of Pennsylvania, witnesseth:

1. The contracts and working conditions which were operative on March 31, 1922, are hereby extended to and including August 31, 1923.

2. Districts 1, 7, and 9, United Mine Workers of America, will forthwith take the necessary steps to enable all employees to return to work to the end that production of anthracite coal may be resumed.

3. The parties unite in a recommendation to Congress that legislation be forthwith enacted creating a separate anthracite coal commission with authority to investigate and report promptly on every phase of the industry, and the parties hereby ask the President to request the enactment by Congress of the recommended legislation.

4. The continuance of production after August 31, 1923, shall be upon such terms as the parties may agree upon in the light of the report of the commission.

Issue in the Anthracite Strike.

Although in the beginning the obvious issue in the anthracite strike was one of wages, the miners demanding a 20 per cent increase and the operators a 21 per cent decrease, this issue soon became submerged in the more vital one of arbitration. The operators insisted upon a permanent arbitration board which should "afford the basis for a peaceable and orderly settlement and tend to avoid suspension of mining hereafter." The miners proposed a fact-finding commission, contending that the arbitration board would soon supersede collective bargaining, which would eventually fall into disuse, and hence no further practical service of the labor organizations would be necessary.[44]

Arbitration, as a means of settlement of a labor controversy, robs the workers of their right to bargain for the sale of their own services. It takes from them all of the means which they now possess for their own protection against oppressive conditions on the part of their employers. Under the operation of arbitration workers are required to surrender their right to negotiate and deal with their employers.

It has been the bitter experience of the workers in this country that they get the worst of it when they agree to the arbitration of their wages or working conditions by outside agencies. It is only necessary to point to the decision of the Bituminous Coal Commission in 1920 to realize the unfairness of arbitration. That commission handed down an award which discriminated against a large class of bituminous mine workers to such a flagrant degree that the discrimination caused strikes and turmoil in the industry. It was only after the President of the United States directed miners and operators to assemble in joint conference and adjust these discriminations that peace was brought about on a permanent basis. Members of the United Mine Workers of America have not forgotten that incident, which shook their faith in outside arbitration as a method for the settlement of industrial controversies.

Disorders During the Strikes.

EXCEPT for the occurrence at Herrin, Ill., the strikes were comparatively free from disorders, the anthracite strike especially so. Intense union sympathies prevail in Williamson County, Ill. On

[43] United Mine Workers' Journal, Indianapolis, Sept. 15, 1922, p. 3.
[44] Idem, p. 6.

June 21 one of the coal companies of southern Illinois attempted to mine coal with strike breakers under armed guards. Two union miners who were reported to have gone to the mine to ask the men to quit work were killed. An armed mob stormed the mine, killed 19 nonunion miners, and wounded 30 others. The situation is thus described in the United Mine Workers' Journal.[45]

According to reports from Herrin, Ill., district officials gave the company permission to employ union men to strip the dirt from the top of the coal and to dig coal during the strike, provided the company would not ship any of the coal. When the company had thus produced approximately 75,000 tons of coal it discharged the union men, imported strike breakers from Chicago, along with about 30 armed guards. These new men started to work and the guards were stationed around the property. They set up a machine gun at the mine.

A number of men, who were reported to be striking miners, went to the mine on June 21 and asked the men to quit work. The armed guards opened fire on them and killed two men. This act incensed the people of the vicinity, and on the next morning a mob stormed the mine, captured all of the strike breakers and armed guards, and killed many of them in brutal fashion.

The worker's organization, through President Lewis, issued a statement deploring the tragedy, denouncing lawlessness of the sort, and denying responsibility for it.[46] The special grand jury drawn to investigate the case reported back to the judge on September 23, bringing in 214 indictments.

The jury blames the Southern Illinois Coal Co. for its "foolhardy" efforts to operate a nonunion mine under armed guard in the midst of such intense union sympathies as prevail in Williamson County. It blames President Lewis and officers of the miners' union for the broadcasted and inflaming Lewis message saying the strip miners were "strike breakers and should be treated as such." It blames the county sheriff, Melville Thaxton, a union member and candidate for county treasurer, for being derelict in his duty for his own political benefit. It charges Adjt. Gen. Carlos Black, of the Illinois National Guard, with equal dereliction of duty for failure to rush State troops into the county when it was plain that violence was about to be done. It condemns the local police for laxity, and makes several other findings indicating the desire of the jury to lay a solid foundation for the enforcement of justice in the prosecutions that may now begin.[47]

Commissions for the Investigation of the Coal Industry.

IT HAS gradually been forced upon the public consciousness that the coal industry needs a settlement that leads somewhere—which will avoid suspensions and provide a sound basis for future production. From all parts of the country the demand has risen for its reorganization and stabilization. But the solution of the coal industry's problem is blocked by ignorance of the facts.

To-day neither the public nor the Government knows whether the coal industry is fairly capitalized, what the extent and value of the coal reserves are, whether depreciation and depletion charges are reasonable, or what are the profits and losses of the industry. Nobody knows whether the prices which the consumer is required to pay are fair and reasonable. Nobody knows precisely what the preventable wastes of the industry are. The annual wages of the miners are not subject to precise statistical statement, nor does anyone know the number of hours the miners work when the mines are in operation or the number of hours they are given opportunity to work. The statements we have are for the most part largely averages based upon inductions from small cross sections of the industry. The working conditions of the miners, the technical state of the organization of work underground, the cost of living at the more than 11,000 mines, remain in the foggy realm of guesswork,

[45] United Mine Workers' Journal, Indianapolis, July 1, 1922, p. 3.
[46] This statement of President Lewis appeared in the United Mine Workers' Journal for July 1, 1922, p. 3.
[47] Coal Age, New York, Sept. 28, 1922, p. 509.

estimate, and speculation. In the face of conditions which, as the operators of Illinois and Indiana stated in 1914, "endanger the lives of the miners, waste the coal reserves, and deprive the operators of any hope of profit," the people, like the people's government, are ignorantly helpless. In the absence of essential information, the public, especially at times of controversy within the industry, is left to the mercy of prejudiced and partisan propaganda.[48]

At intervals for several years there have been introduced in Congress resolutions and bills proposing investigations of the coal industry, but it was not until the pressure of public opinion in the recent strike forced the issue that action resulted. The President in his address to Congress on the industrial crisis urged the creation of a fact-finding commission.

* * * I am asking at your hands the authority to create a commission to make a searching investigation into the whole coal industry, with provision for its lawful activities and the bestowal of authority to reveal every phase of coal production, sale, and distribution. I am speaking now on behalf of mine workers, mine operators, and the American public. It will bring protection to all and point the way to continuity of production and the better economic functioning of the industry in the future.[49]

As a result of this agitation Congress passed on September 22, 1922, a law creating the United States Coal Commission, consisting of seven persons appointed by the President,[50] whose duty it is to investigate all phases of production, transportation, and distribution of coal and all organized or other relationships among operators and miners with a view to recommending remedial legislation. A separate report is to be made on the anthracite industry.

The creation of this commission, with Government sanction and power to recommend legislation, together with the proposals of the miners and operators for investigation and remedy of waste within the industry, offer hope for future peace and order.

Employees' Representation With Reference to Safety.[1]

By W. F. McClellan, of Armour & Co., Chicago.

AT MEETINGS and conferences of this nature it is customary to talk about the foreman's place in safety work. For years we have had this subject before us, until now it is not unfair to say that the field of discussion is about exhausted. By this I do not mean to intimate that our talks here are not worth while, or that further working of this safety mine would not produce some most valuable nuggets. We would not be where we are to-day in the matter of accident prevention were it not for the attention which we have given to educating the foreman and convincing him he is the keystone of the arch.

Now it is time, however, to reach directly the men whom the foremen supervise. We have made some efforts toward this in the past, but to a great extent they have been abortive. We have approached the men in a doctrinaire and pedagogical way, telling them the best safety device was a careful man, and that the injured paid heaviest

[48] Bruère, Robert W.: The Coming of Coal. New York, 1922, p. 110.
[49] Congressional Record, vol. 62, Aug. 18, 1922, p. 12579.
[50] The provisions of this act appear on pp. 193 and 194 of this issue of the Monthly Labor Review, together with the personnel of the new commission appointed on Oct. 10.
[1] Paper read at the packers and tanners' section of the eleventh annual safety congress of the National Safety Council, at Detroit, Aug. 28 to Sept. 1, 1922.

for his accident. We have put up bulletin boards and consumed many columns in house organs, and we have filled pay envelopes with brightly colored safety slogans.

All of these things have stirred up some interest in accident prevention among the men in the ranks. We have realized this and have tried safety committees with some success. It is my purpose to-day to explain what we have been doing along safety lines in the company which I represent through the energy supplied by our employees' representation plan. I will take a minute or two to explain what this plan is, but will not discuss its merits or treat it from any point of view except that of accident prevention.

The plan provides for a conference board composed of an equal number of employee and management representatives. The management appoints its representatives and the employees elect theirs by secret ballot. Working under this board are four divisional committees, wherein both the employees and the management have equal representation, the representatives being chosen in the same manner as those on the conference board. There is also a general conference board for all plants, but it is not necessary to discuss that here. The committees and plant conference board deal with all local problems of interest to employer and employees. They settle such subjects as rates of pay, hours of labor, working conditions, health and sanitation, waste elimination, and accident prevention. The conference board has original jurisdiction in some matters, but in general it is an appeal body. For the purpose of facilitating the work, there are several standing committees of the conference board, on which both management and employees have equal representation. I will discuss only one of these committees, the safety and accident prevention committee.

Each plant has a conference board, and each conference board has a safety and accident prevention committee. In the Chicago plant, with which I am the most familiar, the safety committee is composed of the safety inspector of the plant, the general timekeeper, a machinist who has shown a special interest in safeguards and who before he came to our company had been a master mechanic for another concern, and a clear-thinking laborer, a veteran in the service of the company. The members of this committee get together for discussion on every serious accident. They do the things that under old conditions would naturally be done by management representatives alone; that is, they try to ascertain the real cause of the accident, to prevent its recurrence, and to educate the men to avoid such hazard.

The work does not end with this committee, however. At the next meeting of the conference board, one of the employee representatives will be on his feet before the meeting has progressed five minutes—he may be out of order, but a man with a big message does not worry much about parliamentary law—demanding that immediate action be taken to prevent a repetition of the carelessness or to change the conditions that brought about this injury to his fellow worker. The plant conference board wants to hear this, too; no subject is so intriguing as accident prevention. The members will stop discussing wages and other vital questions to talk safety. For example, at a meeting of the conference board where the question of a reduction of wages was up for consideration, the conference

board spent the greater part of its time laying plans for a "No-accident week" in eight of our largest plants. A few months ago the conference board made plans for the second semiannual "No-accident week" at the same meeting a readjustment of hours was up for consideration. These two examples prove, to my mind at least, that where the worker is given an equal representation with the management in the discussion of questions concerning his welfare, he will place his personal safety on the same plane with his livelihood.

The routine of the safety and accident prevention committee is as follows: Every month the committee of four makes a trip of inspection about the plant. No one knows these men are coming, and they drop in on a department when the superintendent and workers least expect them. As soon as any injury-breeding spot is discovered, the committee calls in the department superintendent and the men working on the job and demands that conditions be made satisfactory. If this is not done immediately, a report is sent to the plant superintendent; and that means immediate action. I have been making inspection trips, day in and day out, for years, and I have used up many reams of white paper in writing reports and making recommendations for mechanical improvements. But this committee, composed of both employee and management representatives, gets what it wants instantly. Everyone cooperates with it. Let me cite an example: A few days before I came here an employee representative on one of our divisional committees discovered a hazardous place in an out-of-the-way nook of the power house, which had to be visited by a temperature man every hour during the day and night. He had reported this once previously, and had been assured that the place would be repaired as soon as it was possible to get mechanics to do the work. When the safety committee got this report from the employee representative in the mechanical division, it sent to the superintendent's office a request for immediate action. The day after this request was received in the chief's office, mechanics were found to do the work, and the spot is now as safe as it is possible to make it. The present form of accident report does not suit the committee on safety and the members are now working on an improved system of tabulation which it is hoped will give a better idea as to just what carelessness does in our packing house.

I have referred previously to our "no-accident weeks," which are now carried on every six months under the direction of the safety and accident prevention committee of the plant conference board. A "no-accident week" was held by eight large plants of the company from May 22 to 27, inclusive. These plants are located at Chicago, Kansas City, Omaha, Sioux City, East St. Louis, Fort Worth, St. Paul, and St. Joseph. The number of employees who participated in this drive in the eight plants totaled about 20,000.

The percentage of accidents is based on the actual number of men at work in each of the plants each day. For example, on the first day of the recent drive the Chicago plant had 6,711 employees with a total of 9 accidents for the day, or thirteen one-hundredths of 1 per cent. Kansas City, with 2,811 employees, had 4 accidents, or fourteen one-hundredths of 1 per cent, etc. This method was followed for the entire week, taking the actual count of employees for each day at all the plants. Every morning telegrams were received showing

the number of employees at work the previous day and the number of accidents for that day. After all the telegrams were received, the Chicago plant would wire each of the eight plants, giving the standing of all plants as to accidents to that date.

The widest publicity was given to this "no-accident week" in the plant magazine, known as the Oval, which is printed at all of the plants and distributed to each employee. Safety posters from the National Safety Council were distributed to all departments and hung in conspicuous places, where they could easily be seen by all employees. The pictures showed the results of carelessness and thoughtlessness, and cautioned the workers to be ever thoughtful and careful in their daily work. Safety-first buttons were also distributed to all employees throughout the plant, and these were worn all through the week of the drive. It was not uncommon to run across men who still had their safety-first buttons from the first "no-accident week," held six months before, and who had been wearing them continuously since that time. They said the buttons were a daily reminder to them to be careful.

A personal letter was addressed to each employee by the plant superintendent in each plant included in this drive, telling him about the "no-accident week" and making a personal appeal to him to make a good record for his plant and also for his department, and outlining in detail the results of accidents.

At the noon hour it was interesting to see the hundreds of employees gathering around the score boards showing the standing of the different plants, which had been erected in several places in the plant.

Various talks were given by the plant superintendents and safety-first inspectors urging the men to be ever careful to avoid accidents and to bring first honors to their own plant.

The accident prevention committee of the plant conference board was in charge of this safety drive. This committee consists of three members from amongst the employees and three management representatives. It is a permanent committee and acts on all matters of safety and accident prevention throughout the year. All details in connection with this work were handled by these men. The employees were cautioned to report any accident, no matter how slight, to the doctor's office, and not to try to cover it up in order to make a good showing for their plant.

Accidents during "no-accident week" were reduced 50 per cent. The effect of this drive was shown the following week in a great reduction from the number of accidents occurring before the drive was made.

Chicago won first place and the banner by having the remarkable record of only 44 accidents for the entire week, none of them serious, among 7,000 employees. Kansas City showed the next best record, with a total of 43 accidents among 3,000 employees.

It was also decided to award a pennant to the department in each plant which showed the smallest number of accidents during the drive. However, in Chicago alone there were so many departments that had no accidents for the week that it was suggested the pennant be awarded to the division having the least number of accidents. There are four divisions—beef, pork, production, and mechanical.

The pennant was exhibited for a few days in each department of the division winning it and was then placed on exhibition where it could be seen by visitors to the plant.

Another prominent feature of this safety drive was a course in "safety first" given by the National Safety Council and known as the "foremen's training course." Twenty-six of the foremen graduated from this course, and not one accident occurred during the "no accident week" in any of the departments over which these graduate foremen presided.

Six months ago a similar drive was launched at these same plants, and the banner was won by St. Joseph, Mo. It was been decided since then to make this "no-accident week" a semiannual affair, as it has proved to be very popular.

The work of the safety committee does not end here, however, nor does the safety work of the employees' representation plan end with the committee. Each employee representative and each management representative on the board wears a badge of identification while he is on the job.

I have told you what has been done for safety through the employees' representation plan. But, notwithstanding all this, it would have fallen flat had we not had a safety enthusiast as superintendent. He has held up the hands of the safety committee on every occasion, as a thoroughly practical man, who approves safety both in theory and practice. It is easy for the conference board to inspire interest in accident prevention when the members have the cooperation of such an enthusiast.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS.

Twelve-Hour Shift in American Industry.

IN 1920 members of the engineering profession began an organized study of the 12-hour shift, or "long day," in the operation of continuous-process industries. The results of this investigation are contained in a report issued by the Federated American Engineering Societies,[1] an advance copy of which was furnished to this bureau. The report is in three parts, the first of which is a summary of field reports by the committee on work periods in continuous industry of the Federated American Engineering Societies; the second a report on two-shift and three-shift operation in the continuous industries, by Horace B. Drury; and the third a comparison of two-shift and three-shift operation in the iron and steel industry, by Bradley Stoughton.

The purpose of the investigation was to answer the following questions:

1. What is the extent of continuous work in American industry?
2. What are the alternatives to the 12-hour shift?
3. Are there technical difficulties in changing from two-shift operation?
4. How does the change from two to three shift operation affect the number of shift workers?
5. What are the factors to be considered in changing from two to three shift operation?
6. What is the effect of 8-hour as compared with 12-hour shift operation on the quantity and quality of production, absenteeism, labor turnover, and industrial accidents?
7. How do wage rates on 8-hour shift operation compare with wage rates on 12-hour shift operation?
8. What is the general opinion of managers of three-shift plants regarding three-shift as compared with two-shift operation?
9. Do employees make good use of the increased hours of leisure?
10. To what extent have plants reverted to two-shift operation?

Continuous-Operation Industries.

IT WAS found that there are upward of 40 continuous industries operating more or less completely upon a shift system. The leading continuous industries fall into four groups: The heat-process industries, the chemical industries, the heavy-equipment industries, and the public-service industries. Group 1 includes the iron and steel, nonferrous metals, glass, Portland cement, lime, brick, and pottery industries. Group 2 includes the heavy chemicals, fertilizer, explosives, dyes, industrial alcohol, wood distillation,

[1] Federated American Engineering Societies. The Twelve-Hour Shift in American Industry. (Mimeographed.)

refined corn products, soap, glue, drugs, perfumes and fine chemicals, electrochemicals, sugar, table salt, petroleum, cottonseed oil, linseed, and other oil industries. Group 3 comprises paper, flour, rubber, breakfast foods, bakeries, automobiles, textiles, and mines. Group 4 includes the power, gas, water supply, mails and express, and telegraph and telephone services, the ice, shipping, railroad, and street-railway industries, and such occupations as those of policemen, firemen, and watchmen.

The reason for continuous operation in the heat-process industries is the loss, "often the prohibitive loss, which would come from allowing materials and furnaces to cool down and then start up again every day in the week. Indeed, some of the processes, as those in blast furnaces and continuous glass tanks, require several months to get into the best working shape, and entirely different methods would have to be followed if the furnace work were to be confined to 8 or 10 hours a day." Among the metallurgical industries, the steel industry is preeminent, as, indeed, it is first among all the continuous-operation industries. This industry is continuous-operation in almost all of its fundamental branches. Because of its size and the large proportion of continuous work, and also because it has been one of the slower of the continuous industries to move toward the abandonment of the 12-hour shift, it is almost as important a factor in the field of this study as all the other continuous industries put together. The metal industries, other than steel, are at the present time almost without exception on a three-shift basis.

The chemical industries are considerably more numerous and diversified than the heat-process industries, but usually not of such very great size individually. Nearly all of the chemical industries have some continuous-process work, but usually it is only a part of the process which is continuous and usually the number of men employed in the continuous-operation departments is relatively not large.

Heavy equipment, it is stated, is one of the most significant causes of continuous operation. Wherever there is expensive overhead and the possibility of increasing output greatly by employing a relatively small number of men to keep this equipment going continuously, there is a strong tendency toward continuous operation. Associated with the desire to save on overhead expense there are also "substantial technical conveniences favoring the uninterrupted operation of certain types of mills or other heavy equipment."

The "principal though not the only reason" for the continuous operation of the public-service industries is that the services rendered are themselves needed day and night. "But the service by night is not necessarily equal to the service by day, and the industries present many irregularities."

Proportion of Shift Work.

IT IS pointed out that not all of the processes in the continuous-operation industries are done by shift work.

The problem of labor shifts in the continuous industries is of somewhat less magnitude than the technical importance of the industries would suggest. Taking the country's industries as a whole, the continuous-operation stage usually comes at a point where products are handled in bulk. The industries which require large numbers of workmen are those which finish or fabricate. As a rule, these industries are

on a daywork basis. In the continuous industries it is very rarely that all the employees are on shift work. In general, the process men are on shift work. But the mechanics who construct and repair equipment, the common labor that loads and unloads cars and handles materials, the men and women who pack and ship goods, as well as those in finishing departments of various kinds, work daywork only. So that in industries that seem thoroughly continuous-process, the proportion of shift workers frequently falls a little short of 50 per cent. Often it is in the neighborhood of 30 or 40 per cent. There are some partly continuous industries where the proportion of shift workers hardly runs over 10 per cent, if it is indeed that large. On the other hand, there are substantial industries, such as cottonseed crushing and beet-sugar refining, where the proportion of shift workers is very close to 100 per cent. Also some of the largest of the steel companies have had as high as two-thirds (or thereabouts) of their employees on shift work, while 50 per cent of shift employees is not at all uncommon in the steel industry.

The total number of wage earners employed on shift work in the continuous industries is estimated as between 500,000 and 1,000,000. "Of these, probably 300,000, or not far from that number, were, at the close of the last period of normal industrial activity, still working 12 hours."

There are few continuous industries which do not have 12-hour plants. Of some 40 or 50 continuous industries a number are overwhelmingly on three shifts. The majority are partly on two shifts and partly on three shifts with three-shift operation in the preponderance. There are a half dozen industries in which two-shift operation is so nearly universal that it is difficult to find an exception. Outside the steel industry the total number of employees on 8-hour shifts is now considerably larger than the total number of employees on 12-hour shifts. Taking into consideration all continuous industries, between one-half and two-thirds of all workers on continuous operation are on shifts averaging 12 hours.

Shift-Work Conditions and Experience in Certain Continuous Industries.

Iron and steel.—Before the war the major branches of the steel industry "were, practically without exception, operated on a two-shift basis." About one-half of the employees were on daywork, usually 10 hours. During the war, there was "some tendency toward three shifts, * * * but the movement did not reach very large proportions, partly because there was in the industry an acute shortage of labor, and in steel towns a shortage of houses, which made the large companies hesitate to attempt to put on an extra shift."

The evidence collected in 1920 and a weighing of the experience of 1920 and 1922 would indicate that it is doubtful whether all the departments of a steel plant can be operated as cheaply on three shifts as on two shifts, if the men receive as much pay for 8 hours as for 12. But there is tangible evidence, strengthened by the developments of the last year, which indicates that under active and able management and with reasonable cooperation on the part of labor, costs on the three-shift system can be kept as low as on the two-shift system, provided wage rates are compromised so that 8-hour men receive pay equivalent to 10 hours' work instead of for 12 hours' work. Such a compromise, or even one less liberal, is ordinarily satisfactory to the men.

Nonferrous metals.—The three-shift system prevails in the nonferrous metal industries, the change from the two-shift system taking place during the war and spreading from the West to the East and the South. "The reason does not lie in the nature of the industries or of the work, but in the attitude of employers and employees." The case is cited of a certain copper company which also manufactures sulphuric acid.

The change to three shifts was made in 1919, largely because the company at that time adopted a policy of recognizing and bargaining with the union, and the union

was strong for eight hours. The agreement made with the unions at the time of reducing hours did not call for any increase in hourly wage rates. In fact, there was some actual saving to the company in this respect because of the cutting out of overtime work. But wages were fixed by a sliding-scale agreement which did cause the rates to rise later on in 1919. Whereas prior to February 1, the pay was $4.20 for a 12-hour day (30 cents an hour straight time, 45 cents an hour overtime—average for the 12 hours, 35 cents), and immediately after February 1, $2.40 for an 8-hour day (30 cents an hour) in time, the pay rose to $3.48 for an 8-hour day. Later on wages again dropped. At the beginning of 1922 they stood at $2.48 for an 8-hour day, or 31 cents an hour. However, at many times the company has voluntarily kept wages above the level to which they would have fallen under the sliding scale. The rate of 31 cents in 1922 was about 29 per cent higher than the standard for 12-hour work in the South, and much more than that per cent higher than the rate paid in many plants. So on the wage question it may be said that the men in this plant sought and accepted the 8-hour shift at a sacrifice of more than one-third of their earnings, but that the company, when prices and wages generally went to lower levels, saw to it that the hourly rates were maintained at a somewhat higher level than would probably have been the case had the two-shift system been retained. This wage differential was, however, nearer 25 or 30 than 50 per cent.

Whatever burden may have arisen in the matter of wage rates was, however, more than offset by increased efficiency. Immediately after the displacement of 12-hour by 8-hour shifts efficiency improved. It kept on improving; indeed, some of the most substantial improvements came in 1921, more than two years after the change. Gain in efficiency came through several channels. A great many jobs were consolidated, so that a man came to do his own work and that of others. Thus where two men had been serving two acid towers a bridge would be built between the two and one man would serve both. Or perhaps three jobs would be combined to form two, new wage rates appropriate to the heavier responsibility being established. Coupled with the reduction in manning there has also been an increase in the tonnage obtained from the equipment, both as respects copper and acid.

* * * It is also to be noted that the increased efficiency came mostly in connection with new plans for manning worked out by the management, and was aided by a general improvement in the relations between management and men due to efforts made along various lines by the company.

Glass and cement.—Until 1922 the 12-hour shift was the rule among glass furnace workers, the other employees being on 8-hour day work. About six years ago a certain large plant went onto the three-shift basis and three years later a majority of the other producers followed.

The cement industry, which is the second most important continuous industry, is predominantly on two shifts, though in 1920 two large companies changed to the three-shift system. A cement company employing from 40 to 50 per cent of colored labor changed to the three-shift basis in April, 1921. The change resulted in greater efficiency, no increase in labor forces, and better work, and "there was not a single department which changed over from two to three shifts where the change was not a tangible gain."

Both white and colored labor have increased in efficiency. The 8-hour shift is popular with both races. As soon as it was introduced, white men who had never before offered to work in the cement mill applied for employment. Some time before a number of their good colored men had been attracted elsewhere, and these came back when the change in shifts was made. There are many applications from men engaged on 10-hour work in the quarry or elsewhere to get on 8-hour shifts.

Lime.—About 15 per cent of the men in the plants investigated were on shift work. In most parts of the country the lime industry is "uniformly on two shifts."

Brick, tile, etc.—In the manufacture of brick and tile, as well as pottery and other clay products, the main labor is in the shaping of the product, an operation which is performed in the daytime only. The industry employs some 100,000 men, of whom about

11,000 are on shift work—for the most part on two shifts. In the Hudson River district, burners and their assistants work 18 hours out of each 24, while in some Philadelphia plants the burner works 24 hours and then is off for 24 hours, while his assistant works 36 hours and takes 12 hours off. In Illinois, however, many plants have changed to the three-shift system.

A company said to be the largest face-brick plant in steady operation in the United States has 63 kilns, of which 25 to 30 are on fire at one time; perhaps two-thirds of these are "hot." Until about 1915 this plant had been operated on two shifts. Its employees are organized, and for several years had been asking for a three-shift day. About 1915 the company agreed to go on three-shift operation. Simultaneously a piece-rate system was introduced by which the men were paid so much per "kiln day."

Prior to changing from two to three shifts, the maximum work assigned to one man was 1 hot kiln. At the present time, on eight-hour shifts, the minimum for a man is 2½ hot kilns. The actual quotas run from 2½ to 5 hot kilns. The management believes that 4 hot kilns are too many for one tender. The men prefer rather to increase than to decrease their number of kilns to be fired.

Under the present arrangement the men fire once every half hour. It takes about five minutes for each kiln (firing half of the 10 fire boxes), or 15 minutes to fire a quota of three kilns. This gives a man about 15 minutes every half hour to rest. The alternation of firing and resting is broken only when fires are cleaned. This requires about two hours on each shift. The management would not favor a doubling up at the time of cleaning fires, as it prefers to have each man clean his own fire.

The men who, prior to 1915 on the two-shift system, earned about $2 a day, were in October, 1921, earning $5, $6, or even $8 a day. According to the management there is no question but that the men prefer the three-shift system. From the above figures it appears that the wage cost per hot kiln to the company was in 1921 no higher than it had been under the old system prior to the war.

The management finds that the men pay better attention to their work and but little difficulty is experienced in securing the desired quality of product. However, more inspection is required. The foremen, who are also on three shifts, are more alert, and instruments provide means of quality control. When the company first went to three shifts only the kiln firemen were changed, leaving the foremen on two shifts, but the foremen asked to go on three shifts. At that time there was a worker, known as checkman, who worked only in the daytime. The foremen suggested that his job be eliminated and that they take care of his work themselves. This was done.

Chemical industries.—Most of the production of "heavy chemicals" (acids, soda, or other chemical products produced on a large scale and manufactured not so much for themselves as because they are used as chemical reagents in other industries) is on the three-shift basis. It is stated that—

In most cases the managers of heavy chemical plants express doubt as to any marked improvement in efficiency under three-shift operation. Most of the managers have held that three shifts could bring no increase in output. At the same time there is a considerable body of opinion to the effect that fewer accidents in processes, less loss and inferior work, ought to prevail where the men are on an 8-hour instead of a 12-hour shift.

This prevalent uncertainty regarding the effects on production of three shifts does not mean, however, that the makers of heavy chemicals feel regret at having gone to three shifts or are contemplating returning to the older system. With a few exceptions the companies seem to be content with the three-shift system.

The three-shift system prevails in the drug plants and in the Niagara Falls electrochemical industries. Acid-plant employees in fertilizer works are "almost universally on 12-hour shifts," as are also most of the continuous-process workers in the explosives, industrial alcohol, and soap plants. The following is the procedure in a large soap plant, about 25 per cent of whose employees are engaged in continuous processes:

Prior to March, 1919, these continuous-operation employees were on 12-hour shifts, or 11 hours by day and 13 hours by night. At that time the company went to three

8-hour shifts. The change was accompanied by an effort for greater efficiency. The aim of the superintendent and foremen was to obtain as much work in 8 hours as had previously been done in 10. While it was impossible for the management to determine the per cent of increased efficiency, it is certain that the gain in efficiency was considerable, but credited to both the increased effort and to the shortening of hours.

In the spring of 1921 the company placed its day workers on a 9-hour instead of an 8-hour day. The men were to get 8 hours' pay for 9 hours' work in lieu of a wage reduction. To put the shift men on a parity with the day men, the company decided to modify the three-shift system. The plan was a compromise between the two-shift and the three-shift systems. In a sense it is a two-and-a-half-shift system, but is called a five-shift system.

Under the five-shift system all of the shift workers are given daily turns of 9 or 10 hours. The number of shift workers is constant throughout the 24 hours, and each man reports for duty on the same hour each day in the week.

The conspicuous feature of the plan is the introduction of two interweaving series of shift workers. At any one moment there are always two shifts on duty, as A and B, the one, however, always being relieved before the other. When a shift worker reports for duty the second day, it is not, strictly speaking, to his former position. The second day he relieves, not those who have relieved him but those who have relieved his neighbor. Thus group A, working from 12 midnight to 10 a. m. Monday, is relieved by group D, working from 10 a. m. to 8 p. m., and then by group B, which works from 8 p. m. Monday to 6 a. m. Tuesday. Group A, coming on again Tuesday, can not relieve group B, for the hours would not come out even. Group E, which group A relieves, in turn has relieved group C, which in turn has relieved group B, group B being the group which throughout the most of Monday worked alongside of group A.

The plant is practically closed down on Sunday. This means that the working week of groups A and D, which are scheduled for 10 hours a day, excepting 12-hour shifts on Saturday, is 62 hours a week. Group B, which also works 10 hours, but is scheduled for only a short turn Sunday night, works 56 hours. Groups C and E, which are the 9-hour groups, work 54 hours. In actual practice, however, groups A and D would probably be relieved two hours earlier than the schedule shows on Saturday, giving them, in fact, a 60-hour week. Group B, on the other hand, would most likely come early Sunday night, probably at 8 p. m., to do odd work about the plant, which would give this group also an even 60-hour week. The shifts rotate once a week. So under ordinary circumstances a man would work 60 hours three weeks out of five and 54 hours the other two weeks.

The five-shift system as thus outlined has two important characteristics other than its even succession of 9 and 10 hour shifts:

First, never more than half of the men are relieved at any one time, obtaining thereby a greater continuity in the work.

Second, a man does not continue to-day the work which he did yesterday, but takes up what his neighbor on the parallel shift had been doing. This makes it necessary to teach men to serve in two positions. It will be observed that no shift begins or ends work between 12 midnight and 6 a. m.

At the end of the first six months of operation under this system the company expressed satisfaction with the plan. The production per hour was as much as under the three-shift system. The results were decidedly better than under the two 12-hour-shift system. The five-shift arrangement meant some more work to teach workmen two different jobs.

The company believes that the men are better satisfied under the five than under the two shift system. As between the five-shift and three-shift systems the adoption of the five-shift system was approved by vote of the men. However, the company previously made it clear that the plant would go to a 9-hour basis, and the vote was on the details of the plan rather than on the general policy involved.

Sugar, salt, petroleum, cottonseed oil, etc.—Nearly all beet-sugar plants run 12-hour shifts, as do also the Louisiana sugar mills. One sugar refinery in Texas tried three shifts and then reverted to two. It is stated that "more than usual importance attaches to the question as to whether a sugar refinery can operate on three shifts without increasing cost. The industry, in manufacturing and retailing, is an example of a tremendous business done on a moderate and, indeed, close margin of profit. Competition is intense. It would be im-

possible for one company to assume a manufacturing cost substantially higher than the others." It is therefore of interest to note the experience of the largest company in this field, which changed to the three-shift basis in 1918:

There are two elements in the question of cost:
1. The extra compensation due to increased hourly rates and number of men.
2. Productive efficiency.

In the case of the —— Co. the first of these two elements was so favorable on three-shift operation as to practically solve the problem of cost.

At the time of the change in the spring of 1918 there was no demand for a reduction in hours, but general conditions were such as to make it likely at any time. It was also expected that an increase in wages would be demanded. In view of the general conditions and the long desire to change to three shifts, the men seized an opportunity to put hours and wages on such a basis as to avoid friction. The management therefore reduced the hours from 12 to 8 and increased the hourly wage rate 50 per cent. The men thereby suffered no appreciable loss in weekly earnings. The company, on the other hand, did not face any extra wage cost due to the change, for wages in competing plants on a 12-hour basis were soon increased 50 per cent.

Nevertheless, the change to three shifts also worked out favorably as respects the second aspect of the cost question—the productive efficiency. The company has no exact figures covering the subject, but it is the judgment of the men in charge both in the general office and in the largest of the refineries that the efficiency of employees is 15 per cent higher than it was on two-shift operation. The management knows, for instance, that on jobs where the work has remained substantially unchanged the men are doing more now than their predecessors were doing 10 years ago. The figure quoted does not have reference to the output of equipment, but that has apparently improved. In 1921 the Brooklyn refinery broke output records for many years past. The management says that absenteeism and labor turnover have decreased.

In the salt plants the 12-hour day was formerly almost universal. In Michigan half the men are on shift work, mostly on three shifts.

No examples of two-shift work were found in the petroleum industry. The plants of the Standard Oil group are uniformly on three shifts. Cottonseed crushing presents one of the largest 12-hour-shift problems during the months in which the plants are in operation. In this industry nearly all employees are shift workers.

Paper, flour, rubber, etc.—There are about 88,000 persons in the paper industry, most of whom are on continuous-operation work, although the tendency is toward less shift work. Most of the plants operate on three shifts. In 1912, 30 per cent of the workers in Massachusetts were on 12-hour shifts and 70 per cent on 8-hour shifts. In 1921 one of the large associations of paper manufacturers reported 20 per cent of the workers still on two shifts.

Practically all the large flour mills are on three shifts. The mills in Minneapolis have been on this basis since 1902 or 1903. Each man works a 6-day week. The Minneapolis experience is of interest because (1) it covers a period of some 20 years, and (2) during much of this time these mills were competing with important mills still running 12-hour shifts. It is stated that "the long-run effect of going to three-shift operation has been to establish the system firmly."

Most of the plants in both the rubber and automobile industries are on the three-shift basis.

The preparation of cereal foods is usually on three shifts. Some plants use the three-shift operation for women and the two-shift for men. In the textile industry the three-shift plan is used to some extent in the North, but in the plants in the South two shifts are employed, the length of the shifts varying greatly. The hours

of work in mines, because of the influence of trade-unions and the nature of the work, are fixed at about eight hours per day, with some exceptions in auxiliary occupations, as for engineers, firemen, and pump men.

Power, gas, water supply, etc.—Work periods in power plants are usually arranged for overlapping shifts of different lengths to provide for variations in the degree of activity. The power departments of factories have been run on the 12-hour shift down to the last few years. At present there is a tendency to put engineers and firemen on three shifts. The proportion of shift workers in gas works is large. There has been a retention of the system of 9 or 10 hour overlapping shifts. In Philadelphia and outlying districts the 10-hour shift is used in conjunction with the 8-hour shift. Water-works plants require less labor for continuous operation than any other public utility. Most plants are now on 8-hour shifts.

Conclusions.

The conclusions arrived at in the report are as follows:

1. The logical alternative to the two 12-hour shift system is the three 8-hour shift system, and this is the usual procedure. Nevertheless, other shift systems have been resorted to in a limited way in changing from the 12-hour shift. Among these are—

(*a*) Operation for a period shorter than 24 hours in each calendar day, permitting of a cessation of work from two to four hours, thus establishing two shifts of 10 or 11 hours each.

(*b*) Arranging the work on a nominal 12-hour shift, so that it can be completed in 10 or 11 hours.

(*c*) Arranging overlapping shifts, thus securing three 9-hour or three 10-hour shifts in 24 hours.

(*d*) Arranging 9 and 10 hour shifts on the five-shift plan.

2. No technical difficulties have been encountered by an overwhelming majority of the plants which have changed from two to three shift operation.

There is usually no relationship between the duration of the process and the length of the shift, whether the latter is 12 hours long or a shorter period.

In almost every continuous industry there are plants which are operating on an 8-hour-shift basis in competition with 12-hour-shift plants.

The seeming disadvantage of having three men instead of two responsible for a given product, process, or equipment is overcome by standardizing procedure and establishing control through precision instruments.

3. It is not possible to give inclusive data as to the effect upon the number of shift workers of the change from two to three shift operation, because of variations in conditions. In many small plants the number of shift workers has increased in proportion to the increase in number of shifts. In many large plants the number of shift workers has remained substantially constant when changing from two to three shift operation.

4. The following factors should be considered in changing from two to three shift operation:

(*a*) The readiness or unreadiness of the men to do more work per hour under the shorter shift.

(*b*) The willingness of the workmen to concede something in the way of daily income. The plan which divides the extra labor cost equally between the men and the company has been acceptable in a number of cases.

(*c*) The availability of the extra trained labor required.

(*d*) The responsibility of management as expressed in planning, supervision, and control, which must be of a higher quality than usually prevails under two-shift operation.

(*e*) Facilitation of the work after the change is made by a survey of the field for labor-saving equipment and methods of management.

(*f*) Condition of equipment in order that it may respond to increased intensity of operation.

(*g*) The fluctuations in individual earnings and labor costs.

(*h*) General industrial and economic conditions to determine the time for making the change.
(*i*) The relationship of work periods for shift and for day workers.
(*j*) The relationship of wage rates for shift and for day workers.
(*k*) Number of working days in a week.
(*l*) Rotation of shifts.

5. The effect of the 8-hour as compared with the 12-hour shift operation on the quantity and quality of production, absenteeism, and industrial accidents has been satisfactory where good management and cooperation of labor have been secured. In practically every major continuous industry there are plants which have increased the quantity of production per man as much as 25 per cent. In a few exceptional cases the increase has been much higher. Evidence shows also an improvement in quality of production following the reduction in the length of shifts.

6. A comparison of wage rates under the 8-hour shift operation with the rates under the 10-hour shift indicates a general tendency to increase the rate per hour under the 8-hour shift, so that the daily earnings will be the same as they were before the change. In some instances a compromise was made whereby the rate per hour was increased sufficiently to make the daily earnings equivalent to a 10-hour day. In other cases a 25 per cent increase in the rate per hour met with the approval of the men.

7. There is a natural divergence of opinion as to the advantages and disadvantages of the three-shift operation, but the weight of the evidence and the most positive statements are in favor of the three-shift operation.

In a number of plants where the change has been made with success the management reports these results:

(*a*) Better physical and mental condition of workmen.
(*b*) Improvement in class of workmen.
(*c*) Less shirking, tardiness, absenteeism and labor turnover, and industrial accidents.
(*d*) Improved spirit and cooperation of workmen.
(*e*) More exact adherence to instructions as to working methods.
(*f*) More uniform methods with consequent attainment of standards, etc.
(*g*) Better quality of product.
(*h*) Increased output per man per hour.
(*i*) Decrease in amount of material used.
(*j*) Elimination of waste.
(*k*) Longer life of equipment and less repairs.
(*l*) Greater prestige with the public.

8. The evidence is conclusive that the extra leisure time of the men under the shorter working day is used to good advantage. It is spent in gardening, truck farming, and in doing odd jobs which otherwise would have to be paid for or would not be done at all.

9. A few plants have reverted to the two-shift operation after a trial of the three-shift system. This proportion to the number continuing operation on three shifts is so small as to be negligible. The weight of evidence shows that when a plant changes to three-shift operation it is very unlikely that it will revert to the former system.

It is stated that "there is no direct relationship between the question of abandoning the 12-hour shift system and the question of adopting the 8-hour shift system."

In a sense it is accidental that most employers in changing from the long day have been forced by the mathematics of the situation to adopt a system of three shifts of 8 hours each. Certainly the change itself has involved no judgment as to the relative merits of a working day of 8 hours as compared with a working day of any other length shorter than 12 hours.

Relatively only a small part of industrial work, 5 to 10 per cent, is on processes which require continuous operation and the number of workers is relatively few. The desirability of abandoning the two-shift system lies not in its extent but in the fact that the 12-hour shift day is too long when measured by twentieth century ideas as to the proper conduct of industry. Decisions are influenced to-day by humanitarian considerations as well as the economic, which demands that length of a day which will in the long run give maximum production.

Further, there is practical unanimity of opinion in industry as to the desirability of the change provided the economic loss is not too great. The weight of evidence indicates that the change can usually be made at a small financial sacrifice on the part of the workers and of the management. Under proper conditions no economic loss

need be suffered. In certain instances, indeed, both workers and stockholders have profited by the change.

Facts developed by our investigation definitely prove that there is no broadly applicable way of striking a balance between the losses and gains inherent in the change from the two-shift system of operation. If any one fact stands out above the others it is that the change can not advantageously be made by fiat. Our judgment is that to effect the change suddenly or without adequate preparation is sure to result in lowered production. It is also our opinion that when the change is preplanned and the cooperation of everyone is enlisted gains will accrue to everyone concerned—to workers, management, owners, and the public.

Action of Various Countries on Draft Conventions and Recommendations of International Labor Conference.[1]

THE following statement summarizes in tabular form the action taken by various foreign countries regarding the draft conventions and recommendations adopted by the International Labor Conference at the sessions held in Washington, Genoa, and Geneva, 1919, 1920, and 1921.[2] This table shows, first, the extent to which the conventions have been ratified, and, second, under the heading "Application," the legislative measures adopted or proposed and measures of an administrative nature designed to give effect partially or wholly to the provisions of the draft conventions or recommendations.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE.

(A) FIRST SESSION (WASHINGTON, 1919).

CONVENTIONS.

I. Ratification.

Abridged title of convention.	Countries ratifying conventions and date of registration.		Ratification authorized by Parliament (acts, etc.).	Ratification recommended to Parliament (bills, etc.).
	Country.	Date.		
1. Hours.	Bulgaria. Czechoslovakia. Greece. India. Rumania.	Feb. 14, 1922. Aug. 24, 1921. Nov. 19, 1920. July 14, 1921. June 13, 1921.		Argentina. Austria. Belgium. Brazil. Chile. France. Germany. Poland. Spain.
2. Unemployment.	Bulgaria. Denmark. Finland. Great Britain. Greece. India. Norway. Rumania. Sweden.	Feb. 14, 1922. Oct. 13, 1921. Oct. 19, 1920. July 14, 1921. Nov. 19, 1920. July 14, 1921. Nov. 23, 1921. June 13, 1921. Sept. 27, 1921.	Italy. Switzerland.	Argentina. Austria. Belgium. Brazil. Czechoslovakia. Esthonia. Germany. Poland.

[1] International Labor Office. Official Bulletin, Geneva, August 9, 1922, pp. 272-279. No account is here taken of previously existing legislation which may correspond with the provisions of a draft convention adopted by the conference at a date subsequent to such existing legislation. In a number of cases of this kind the ratification of the convention in question has been delayed by constitutional or other internal difficulties.

[2] For reports on Washington, Genoa, and Geneva sessions of conference see MONTHLY LABOR REVIEW, January, 1920, pp. 1-26; October, 1920, pp. 209-211; and January, 1922, pp. 51-56.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Continued.

(A) FIRST SESSION (WASHINGTON, 1919)—Continued.

CONVENTIONS—continued.

I. Ratification—Concluded.

Abridged title of convention.	Countries ratifying conventions and date of registration.		Ratification authorized by Parliament (acts, etc.).	Ratification recommended to Parliament (bills, etc.).
	Country.	Date.		
3. Childbirth.	Bulgaria. Greece. Rumania.	Feb. 14, 1922. Nov. 19, 1920. June 13, 1921.	Italy. Spain.	Argentina. Belgium. Brazil. Chile. Czechoslovakia. France. Germany. Poland.
4. Night work, women.	Bulgaria. Czechoslovakia. Great Britain. Greece. India. Rumania. South Africa.	Feb. 14, 1922. Aug. 24, 1921. July 14, 1921. Nov. 19, 1920. July 14, 1921. June 13, 1921. Nov. 1, 1921.	Italy. Netherlands. Switzerland.	Argentina. Austria. Belgium. Brazil. Chile. Esthonia. Germany. France. Spain.
5. Minimum age.	Bulgaria. Czechoslovakia. Great Britain. Greece. Rumania.	Feb. 14, 1922. Aug. 24, 1921. July 14, 1921. Nov. 19, 1920. June 13, 1921.	Finland. Netherlands. Switzerland.	Argentina. Belgium. Brazil. Chile. Esthonia. France. Germany. Poland. Spain.
6. Night work, young persons.	Bulgaria. Great Britain. Greece. India. Rumania.	Feb. 14, 1922. July 14, 1921. Nov. 19, 1920. July 14, 1921. June 13, 1921.	Finland. Italy. Netherlands. Switzerland.	Argentina. Austria. Belgium. Brazil. Chile. Esthonia. France. Germany. Poland. Spain.
7. White phosphorus.[1]	Austria. Australia. Czechoslovakia. Finland. Free City of Danzig.[2] India. Japan. Poland. Rumania. Sweden.	Mar. —, 1920. Dec. 30, 1919. Mar. —, 1921. Oct. 13, 1921. Aug. 23, 1921. Dec. 30, 1919. Oct. 14, 1921. —— —, 1921. July 21, 1921. Feb. 27, 1920.		Esthonia. Germany.

[1] This Berne convention formed the subject of one of the Washington recommendations. The measures indicated have been taken since the Washington conference.
[2] Adherence communicated by Poland.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Continued.

(A) First Session (Washington, 1919)—Continued.

CONVENTIONS—concluded.

II. *Application.*

Abridged title of convention.	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.
1. Hours.	Belgium. British Columbia (Canada). India. Spain. Sweden.	Argentina. Bolivia. Chile. Denmark. Germany. Italy. Luxemburg.	Japan. South Africa.
2. Unemployment.	British Columbia (Canada). Denmark. Japan. Rumania. Spain.	Chile. Czechoslovakia. Finland. Rumania.	Poland. Uruguay.
3. Childbirth.	Austria. British Columbia (Canada).	Brazil. Chile. Denmark. France. Germany. Italy. Portugal. Rumania.	Japan.
4. Night work, women.	Austria.[3] Belgium. British Columbia (Canada). Great Britain. Poland.[3] Switzerland. Free City of Danzig.[4]	Brazil. Chile. Denmark. Germany. Portugal.	Japan. Poland.
5. Minimum age.	Belgium. British Columbia (Canada). Bulgaria. Denmark. Great Britain. India (art. 6 *c*). Poland. Switzerland.	Brazil. Chile. Germany. Poland. Portugal. Rumania.	Japan.
6. Night work, young persons.	Belgium. British Columbia (Canada). Denmark. Great Britain. Switzerland.	Brazil. Chile. Germany. Portugal.	Czechoslovakia. Japan.
7. White phosphorus.[1]	Finland. Greece. Italy. Japan.		Poland. Sweden.

[1] This Berne convention formed the subject of one of the Washington recommendations. The measures indicated have been taken since the Washington conference.
[3] Adherence to Berne convention of 1906.
[4] Adherence to Berne convention of 1906; communicated by Poland.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Continued.

(A) First Session (Washington, 1919)—Concluded.

RECOMMENDATIONS.

Abridged title of recommendation.	Measures taken.					
	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.	Approval authorized.	Approval recommended to Parliament.	Notification that recommendation is already applied.[5]
1. Unemployment.	Belgium. Denmark. France. France (sec. II). Germany. Great Britain (sec. III). Greece. Italy (sec. II). Norway. Poland. Poland (sec. II). Spain (sec. II).	Chile. Czechoslovakia. France. Poland.	Belgium. Luxemburg. Netherlands. Poland (sec. I).	Bulgaria. Rumania. Spain.	Germany.	Austria. Finland. Italy. Sweden.
2. Reciprocity of treatment.	Argentina. Belgium. Czechoslovakia. France. Italy. Luxemburg. Netherlands. Poland.			Bulgaria. Rumania.	Germany.	Bulgaria. Chile. France. India. Italy. Japan. Luxemburg. Poland. Rumania. Spain. Sweden.
3. Anthrax.	India. Netherlands.		Netherlands.	Bulgaria. Rumania.	Germany.	Australia. France. Poland.
4. Lead poisoning.	Great Britain. India. Netherlands. Poland. Switzerland.	Brazil. Chile. Portugal.	Austria.	Bulgaria. Rumania.	Germany.	Japan. Poland.
5. Government health services.	Austria. Chile. Poland.	Chile. Poland.		Bulgaria. Rumania.	Germany. India.	Austria. Belgium. Bulgaria. Finland. Great Britain. Netherlands. Norway. Rumania. South Africa. Sweden.
6. White phosphorus.	(See preceding table.)					Australia. Austria. Belgium. Canada. Denmark. Finland. France. Great Britain. India. Italy. Luxemburg. Netherlands. Norway. Rumania. South Africa. Spain. Sweden.

[5] This column shows the countries which have officially intimated that their existing legislation already applies the provisions of the recommendations.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Continued.

(B) SECOND SESSION (GENOA, 1920).

CONVENTIONS.

I. Ratification.

Abridged title of convention.	Countries ratifying conventions and date of registration.		Ratification authorized by Parliament (acts, etc.).	Ratification recommended to Parliament (bills, etc.).
	Country.	Date.		
1. Minimum age (sea).	Great Britain. Rumania. Sweden.	July 14, 1921. May 8, 1922. Sept. 27, 1921.	Finland. India.[6]	Belgium.[7] Chile. Denmark. Germany. Netherlands. Poland. Spain.
2. Unemployment indemnity.				Belgium.[7] Chile. Denmark. Germany. Poland. Spain.
3. Employment for seamen.	Norway. Sweden.	Nov. 23, 1921. Sept. 27, 1921.	Finland.	Belgium.[7] Chile. Denmark. Germany. Poland. Spain.

II. Application.

Abridged title of convention.	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.
1. Minimum age (sea).	Czechoslovakia. Great Britain.	Chile. Poland.	Denmark. France. Italy. Netherlands.
2. Unemployment indemnity.	Australia.	Chile.	Denmark. Finland. France. Italy. Netherlands. Sweden.
3. Employment for seamen.	Australia. Japan.	Czechoslovakia. France. Poland.	Denmark Italy. Netherlands.

[6] With reservations.
[7] Bill not yet introduced; is to be referred to the council of ministers.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Continued.

(B) Second Session (Genoa, 1920)—Concluded.

RECOMMENDATIONS.

Abridged title of recommendation.	Measures taken.					
	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.	Approval authorized.	Approval recommended.	Notification that recommendation is already applied.[5]
1. Hours of work (fishing).	Czechoslovakia.	Chile.	South Africa.		Denmark. Germany.	France.
2. Inland navigation.	Czechoslovakia.	Chile.	Netherlands (sec. I). Poland.		Denmark. Germany.	Czechoslovakia.
3. National seamen's code.		France.	Argentina. Canada. Denmark. Finland. Italy. Norway. Poland. South Africa. Sweden.		Germany.	Denmark. Germany. Japan.
4. Unemployment insurance.	Germany.	Chile.	Germany. Japan.		Germany. Great Britain.	Denmark. Finland. Germany. Great Britain. Norway.

[5] This column shows the countries which have officially intimated that their existing legislation applies the provisions of the recommendation.

(C) Third Session (Geneva, 1921).

CONVENTIONS.

I. Ratification.

Abridged title of convention.	Countries ratifying conventions and date of registration.		Ratification authorized by Parliament (acts, etc.).	Ratification recommended to Parliament (bills, etc.).
	Country.	Date.		
1. Age of admission (agriculture).			Esthonia.	Chile.
2. Rights of association (agriculture).			Esthonia.	Chile.
3. Workmen's compensation (agriculture).			Esthonia.	Chile.
4. White lead.			Esthonia. Greece.	Chile.
5. Weekly rest (industry).			Greece.	Chile.
6. Minimum age for trimmers and stokers.			Esthonia.	Chile.
7. Medical examination, young persons (sea).			Esthonia.	Chile.

ACTION TAKEN IN EXECUTION OF DRAFT CONVENTIONS AND RECOMMENDATIONS ADOPTED BY INTERNATIONAL LABOR CONFERENCE—Concluded.

(C) THIRD SESSION (GENEVA, 1921)—Concluded.

CONVENTIONS—concluded.

II. Application.

Abridged title of convention.	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.
Weekly rest in industry.	India.		Japan.

RECOMMENDATIONS.

Abridged title of recommendation.	Measures taken.					
	Acts, etc.	Bills, etc., introduced or adopted.	Bills, etc., drafted or in preparation.	Approval authorized.	Approval recommended.	Notification that recommendation is already applied.[5]
Weekly rest in commercial establishments.		Denmark.	Netherlands.			
Social insurance (agriculture).						Denmark.
Technical agricultural education.						Denmark.

[5] This column shows the countries which have officially intimated that their existing legislation applies the provisions of the recommendation.

Thirteenth Session of Governing Body of International Labor Office.[1]

THE governing body of the International Labor Office held its thirteenth session at Interlaken, Switzerland, July 25–27, 1922. At the first sitting a resolution was adopted to delegate the study of native labor to the diplomatic division.

The following were among the more important decisions reached at subsequent sittings:

To continue the examination of labor conditions in the fishing industry, of an international unemployment insurance system for seamen, and of the regulation of working hours in the mercantile marine.

To make a preliminary survey of the condition of social insurance for seamen.

To continue the work of drafting an international seamen's code.

To accept the financial assistance offered by associations of disabled men to cover the expense of the preliminary organization of an information and research center in regard to prosthesis, provided it be

[1] International Labor Office. Official Bulletin, Geneva, Aug. 16, 1922, pp. 298-304.

permitted to use such contribution in preparing a book of record on fitting disabled men for industrial employment.

In connection with the recommendations of the experts relative to international agreements concerning disabled men residing in countries other than their own, the governing body authorized the director—

(1) To communicate the conclusions of the experts to the Governments interested.
(2) To place at their disposal all the documentation which might be useful with a view to facilitating the conclusion of agreements between States.
(3) To do everything possible to insure, in conventions between countries, a respect for the principles admitted to be most satisfactory by the unanimous opinion of the experts.

The governing body also decided to have an immediate examination made into the equality of treatment accorded national and foreign workers and the limitation of the cost of relief granted immigrants by the country of immigration.

A plan for a general preliminary report on unemployment was broadly outlined, which report is to be submitted to the 1922 session of the International Labor Conference. This document will contain a summary of the data concerning the extent of the existing unemployment crisis, a résumé of the ameliorative measures being taken by Governments in this connection, and an "objective list" of the ascribed causes of such crisis.

Works Councils in Norway.[1]

THE temporary law providing for works councils in industrial establishments in Norway was enacted in 1920. During 1921 163 works councils were established, of which 61 were in Christiania and vicinity. It is stated that, considering that works councils can be formed only in establishments employing at least 50 workers and considering also unfavorable labor conditions, this denotes considerable interest among the organized workers. Workers' opinions as to works councils vary, some maintaining that trade-unions can attend to any matters that arise and that works councils are unnecessary, others that the councils can aid trade-union organizations and promote matters of practical value to the workers.

It is also stated that the general opinion is that an arrangement which affects only establishments employing no less than 50 workers can not be very effective, as this leaves out four-fifths of the country's industrial establishments, and it is thought that it should be made to include all establishments or at least include those which have 10 or more workers and that works councils should be made compulsory instead of being established on request of the workers, as the law now provides.

Works councils can now act only in an advisory capacity and the statement is made that the employers often ignore the councils' recommendations and advice, which often arouses dissatisfaction among the workers. It is believed that a more effective control is needed.

[1] Meddelelsesblad (organ of the Norwegian National Federation of Trade-Unions), Christiania, May-June, 1922, pp. 69-71.

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.[1]

Table 1 shows for the United States retail prices of food on September 15, 1921, and on August 15 and September 15, 1922, as well as the percentage changes in the year and in the month. For example, the price of butter per pound was 50.6 cents on September 15, 1921; 44.2 cents on August 15, 1922; and 46.7 cents on September 15, 1922. These figures show a decrease of 8 per cent in the year, but an increase of 6 per cent in the month.

The cost of the various articles of food,[2] combined, showed a decrease of 9 per cent in September, 1922, as compared with September, 1921, but an increase of 1 per cent in September, 1922, as compared with August, 1922.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15, 1922, COMPARED WITH SEPTEMBER 15, 1921, AND AUGUST 15, 1922.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) Sept. 15, 1922, compared with—	
		Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.
		Cents.	*Cents.*	*Cents.*		
Sirloin steak	Pound	38.9	39.0	38.7	−1	−1
Round steak	do	34.4	34.1	33.6	−2	−1
Rib roast	do	28.6	28.2	28.1	−2	−0.4
Chuck roast	do	20.5	20.0	20.0	−2	0
Plate beef	do	13.3	12.6	12.6	−5	0
Pork chops	do	37.6	35.1	36.4	−3	+4
Bacon	do	43.0	40.6	40.4	−6	−0.4
Ham	do	51.4	50.8	48.4	−6	−5
Lamb, leg of	do	32.8	36.0	35.9	+9	−0.3
Hens	do	38.2	34.9	34.9	−9	0
Salmon, canned, red	do	35.4	31.9	31.7	−10	−1
Milk, fresh	Quart	14.1	13.0	13.1	−7	+1
Milk, evaporated	15–16 oz. can	13.5	10.8	10.8	−20	0

[1] 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 of electricity from 32 cities. These prices are published at quarterly intervals in the MONTHLY LABOR REVIEW.

[2] 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 OR DECREASE SEPTEMBER 15, 1922, COMPARED WITH SEPTEMBER 15, 1921, AND AUGUST 15, 1922—Concluded.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) Sept. 15, 1922, compared with—	
		Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.
		Cents.	*Cents.*	*Cents.*		
Butter	Pound	50.6	44.2	46.7	−8	+6
Oleomargarine	do	29.9	27.6	27.8	−7	+1
Nut margarine	do	28.1	26.6	26.8	−5	+1
Cheese	do	32.6	31.8	32.1	−2	+1
Lard	do	17.9	17.2	17.2	−4	0
Crisco	do	21.3	22.9	23.0	+8	+0.4
Eggs, strictly fresh	Dozen	50.4	37.1	44.8	−11	+21
Bread	Pound	9.6	8.7	8.7	−9	0
Flour	do	5.6	5.1	4.9	−13	−4
Corn meal	do	4.4	3.9	3.9	−11	0
Rolled oats	do	9.9	8.7	8.7	−12	0
Corn flakes	8-oz. package	12.0	9.8	9.8	−18	0
Cream of Wheat	28-oz. package	29.7	25.7	25.6	−14	−0.4
Macaroni	Pound	20.6	20.0	19.9	−3	−1
Rice	do	9.0	9.6	9.6	+7	0
Beans, navy	do	8.1	11.3	10.8	+33	−4
Potatoes	do	4.0	2.6	2.3	−43	−12
Onions	do	5.7	5.9	5.1	−11	−14
Cabbage	do	5.4	3.9	3.7	−29	−5
Beans, baked	No. 2 can	14.1	13.4	13.4	−5	0
Corn, canned	do	16.1	15.4	15.3	−5	−1
Peas, canned	do	17.7	17.6	17.5	−1	−1
Tomatoes, canned	do	12.5	13.6	13.1	+5	−4
Sugar, granulated	Pound	7.3	8.1	7.9	+8	−2
Tea	do	69.2	68.3	68.2	−1	−0.1
Coffee	do	35.6	36.2	36.2	+2	0
Prunes	do	18.9	20.8	20.9	+11	+0.4
Raisins	do	29.1	23.2	22.1	−24	−5
Bananas	Dozen	37.7	34.2	34.0	−10	−1
Oranges	do	53.1	64.8	64.8	+22	0
All articles combined [1]					−9	+1

[1] See note 2, p. 44.

Table 2 shows for the United States average retail prices of specified food articles on September 15, 1913 and 1914, and on September 15 of each year from 1917 to 1922, together with the percentage changes in September of each of these specified years compared with September, 1913. For example, the price of flour per pound was 3.3 cents in September, 1913; 3.7 cents in September, 1914; 7.4 cents in September, 1917; 6.8 cents in September, 1918; 7.3 cents in September, 1919; 8.3 cents in September, 1920; 5.6 cents in September, 1921; and 4.9 cents in September, 1922. As compared with the average price in September, 1913, these figures show the following percentage increases: 12 per cent in September, 1914; 124 per cent in September, 1917; 106 per cent in September, 1918; 121 per cent in September, 1919; 152 per cent in September, 1920; 70 per cent in September, 1921; and 48 per cent in September, 1922.

The cost of the various articles of food, combined, showed an increase of 36 per cent in September, 1922, as compared with September, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH SEPTEMBER 15, 1913.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail prices Sept. 15.								Per cent of increase (+) or decrease (−) Sept. 15 of each specified year compared with Sept. 15, 1913.						
		1913	1914	1917	1918	1919	1920	1921	1922	1914	1917	1918	1919	1920	1921	1922
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.							
Sirloin steak	Pound	26.3	27.2	33.3	41.7	40.9	46.8	38.9	38.7	+3	+27	+59	+56	+78	+48	+47
Round steak	...do	23.2	24.6	29.7	39.8	37.9	43.1	34.4	33.6	+6	+28	+72	+63	+86	+48	+45
Rib roast	...do	20.1	20.9	26.0	32.7	31.2	34.5	28.6	28.1	+4	+29	+63	+55	+72	+42	+40
Chuck roast	...do	16.4	17.3	21.9	28.4	25.3	27.1	20.5	20.0	+5	+34	+73	+54	+65	+25	+22
Plate beef	...do	12.3	13.0	16.3	21.9	18.2	18.4	13.3	12.6	+6	+33	+78	+48	+50	+8	+2
Pork chops	...do	22.8	23.7	38.9	46.1	46.0	50.0	37.6	36.4	+4	+71	+102	+102	+119	+65	+60
Bacon	...do	28.1	29.0	44.4	56.2	55.6	54.5	43.0	40.4	+3	+58	+100	+98	+94	+53	+44
Ham	...do	28.1	29.1	40.9	51.9	55.2	60.4	51.4	48.4	+4	+46	+85	+96	+115	+83	+72
Lamb, leg of	...do	18.7	19.7	31.4	36.9	34.6	39.1	32.8	35.9	+5	+68	+97	+85	+109	+75	+92
Hens	...do	21.5	21.8	30.3	39.4	41.4	45.6	38.2	34.9	+1	+41	+83	+93	+112	+78	+62
Salmon, canned, red.	...do	....	....	[1] 27.6	[1] 30.5	[1] 33.6	[1] 39.0	35.4	31.7	.....	.....	.....	.....	.....	.....	.....
Milk, fresh	Quart	8.9	8.9	11.8	14.3	15.7	17.2	14.1	13.1	0	+33	+61	+76	+93	+58	+47
Milk (evaporated, unsweetened).	[2]	....	....	.....	.....	16.5	15.7	13.5	10.8	.....	.....	.....	.....	.....	.....	.....
Butter	Pound	37.7	37.7	49.5	59.2	65.7	68.6	50.6	46.7	0	+31	+57	+74	+82	+34	+24
Oleomargarine	...do	....	....	.....	.....	42.8	41.9	29.9	27.8	.....	.....	.....	.....	.....	.....	.....
Nut margarine	...do	....	....	.....	.....	35.8	36.3	28.1	26.8	.....	.....	.....	.....	.....	.....	.....
Cheese	...do	22.1	22.9	33.6	36.0	43.0	40.6	32.6	32.1	+4	+52	+63	+95	+84	+48	+45
Lard	...do	16.1	15.6	29.7	33.6	38.2	27.9	17.9	17.2	−3	+84	+109	+137	+73	+11	+ 7
Crisco	...do	....	....	.....	.....	39.5	33.1	21.3	23.0	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh.	Dozen	37.7	36.8	52.6	58.6	63.2	71.1	50.4	44.8	−2	+40	+55	+68	+89	+34	+19
Bread	Pound	5.6	6.4	9.9	9.9	10.1	11.9	9.6	8.7	+14	+77	+77	+80	+113	+71	+55
Flour	...do	3.3	3.7	7.4	6.8	7.3	8.3	5.6	4.9	+12	+124	+106	+121	+152	+70	+48
Corn meal	...do	3.1	3.3	8.1	6.9	6.7	6.8	4.4	3.9	+7	+161	+123	+116	+119	+42	+26
Rolled oats	...do	....	....	.....	.....	9.1	11.5	9.9	8.7	.....	.....	.....	.....	.....	.....	.....
Corn flakes	[3]	....	....	.....	.....	14.0	14.5	12.0	9.8	.....	.....	.....	.....	.....	.....	.....
Cream of Wheat	[4]	....	....	.....	.....	25.1	30.4	29.7	25.6	.....	.....	.....	.....	.....	.....	.....
Macaroni	Pound	....	....	.....	.....	19.4	22.0	20.6	19.9	.....	.....	.....	.....	.....	.....	.....
Rice	...do	8.7	8.8	10.8	13.7	16.5	17.6	9.0	9.6	+1	+24	+57	+90	+102	+3	+10
Beans, navy	...do	....	....	18.8	16.9	12.4	11.6	8.1	10.8	.....	.....	.....	.....	.....	.....	.....
Potatoes	...do	1.9	1.8	2.9	3.9	4.3	4.0	4.0	2.3	−5	+53	+105	+126	+111	+111	+21
Onions	...do	....	....	4.6	5.0	6.5	5.3	5.7	5.1	.....	.....	.....	.....	.....	.....	.....
Cabbage	...do	....	....	.....	.....	4.9	3.8	5.4	3.7	.....	.....	.....	.....	.....	.....	.....
Beans, baked	[5]	....	....	.....	.....	17.1	16.8	14.1	13.4	.....	.....	.....	.....	.....	.....	.....
Corn, canned	[5]	....	....	.....	.....	19.2	18.7	16.1	15.3	.....	.....	.....	.....	.....	.....	.....
Peas, canned	[5]	....	....	.....	.....	19.2	19.3	17.7	17.5	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned	[5]	....	....	.....	.....	16.0	15.0	12.5	13.1	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated	Pound	5.7	8.0	9.9	9.6	11.0	18.3	7.3	7.9	+40	+74	+68	+93	+221	+28	+39
Tea	...do	54.5	54.7	61.0	66.4	70.7	74.6	69.2	68.2	+0.4	+12	+22	+30	+37	+27	+25
Coffee	...do	29.8	29.7	30.5	30.3	48.8	46.6	35.6	36.2	−0.3	+2	+2	+64	+56	+19	+21
Prunes	...do	....	....	16.3	17.4	28.0	28.4	18.9	20.9	.....	.....	.....	.....	.....	.....	.....
Raisins	...do	....	....	14.8	15.4	19.4	30.8	29.1	22.1	.....	.....	.....	.....	.....	.....	.....
Bananas	Dozen	....	....	.....	.....	38.4	47.8	37.7	34.0	.....	.....	.....	.....	.....	.....	.....
Oranges	...do	....	....	.....	.....	53.9	70.8	53.1	64.1	.....	.....	.....	.....	.....	.....	.....
All articles combined.[6]	.....	.....	.....	.....	.....	.....	.....	.....	.....	+5	+49	+74	+84	+99	+49	+36

[1] All.
[2] 15–16 ounce can.
[3] 8-ounce package.
[4] 28-ounce package.
[5] No. 2 can.
[6] See note 2, p. 44.

Table 3 shows the changes in the retail price of each of 22 articles of food [3] as well as the changes in the amounts of these articles that could be purchased for $1, each year, 1913 to 1921, and in September, 1922.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR $1 IN EACH YEAR, 1913 TO 1921, AND BY MONTHS FOR 1922.

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: September	.387	2.6	.336	3.0	.280	3.6	.200	5.0	.126	7.9	.364	2.7

Year.	Bacon.		Ham.		Lard.		Hens.		Eggs.		Butter.	
	Per lb.	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per lb.*	*Lbs.*	*Per doz*	*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: September	.404	2.5	.484	2.1	.172	5.8	.349	2.9	.448	2.2	.467	2.1

Year.	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: September	.321	3.1	.131	7.6	.087	11.5	.049	20.4	.039	25.6	.096	10.4

Year.	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: September	.023	43.5	.079	12.7	.362	2.8	.682	1.5

[3] 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.

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,[4] by years from 1907 to 1921, and by months for 1921 and 1922.[5] 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.[4] 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 50 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 September, 1922, to approximately where it was in April, 1917. The chart has been drawn on the logarithmic scale,[6] because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

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[4] See note 2, p. 44.

[5] For index numbers of each month, January, 1913, to December, 1920, see MONTHLY LABOR REVIEW for February, 1921, pp. 19–21.

[6] 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 1921, AND BY MONTHS FOR 1921 AND FOR A PART OF 1922.

[Average for year 1913=100.]

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese	Milk.	Bread.	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee.	Tea.	All articles combined.
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: Av. for year	**153**	**154**	**147**	**133**	**118**	**166**	**158**	**181**	**114**	**186**	**148**	**135**	**154**	**164**	**177**	**176**	**150**	**109**	**182**	**145**	**122**	**128**	**153**
January	159	163	157	148	140	171	171	180	141	200	229	159	175	183	193	203	173	176	176	176	129	133	172
February	151	153	148	138	129	156	166	179	131	201	139	148	174	173	189	197	167	121	153	162	126	131	158
March	154	157	152	141	130	168	155	181	124	203	121	150	176	171	188	194	160	113	147	176	125	131	156
April	157	160	154	140	127	177	164	183	116	202	99	145	169	167	184	179	153	106	135	176	123	129	152
May	158	160	153	138	124	167	161	181	106	194	97	111	143	162	177	173	150	101	129	153	121	129	145
June	157	160	151	135	117	162	159	182	103	181	101	105	133	160	175	179	150	101	159	142	120	126	144
July	158	161	148	129	109	163	160	190	106	182	122	122	133	157	173	176	147	100	200	129	120	127	148
August	157	160	147	130	112	181	162	197	115	183	138	134	148	161	173	173	150	101	247	136	119	127	155
September	153	154	144	128	110	179	159	191	113	179	146	132	148	158	171	170	147	103	235	133	119	127	153
October	147	148	139	124	109	171	153	180	109	175	171	139	149	160	170	164	143	107	206	125	119	127	153
November	141	139	135	120	106	152	147	170	105	168	201	139	151	161	166	155	140	108	188	122	119	127	152
December	139	138	135	120	106	145	143	165	101	168	204	136	149	158	163	152	137	107	182	118	119	124	150
1922:																							
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

[979]

TREND IN THE RETAIL COST OF ALL ARTICLES OF FOOD, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO SEPTEMBER, 1922.

[Average cost for 1913=100.]

Retail Prices of Food in 51 Cities on Specified Dates.

AVERAGE retail food prices are shown in Table 5 for 39 cities for September 15, 1913, and 1921, and for August 15, and September 15, 1922. For 12 other cities prices are shown for the same dates with the exception of September, 1913, as these cities were not scheduled by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

[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.			
		Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
		1913	1921			1913	1921			1913	1921		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.0	36.1	35.9	35.5	25.0	37.6	37.8	37.5	28.1	28.5	34.8	33.9
Round steak	do	21.5	33.1	31.9	31.7	23.0	34.3	35.0	34.5	22.5	34.7	31.0	30.7
Rib roast	do	19.6	27.4	27.2	27.1	19.0	28.9	29.4	29.2	20.6	27.7	25.9	26.0
Chuck roast	do	16.0	20.7	19.5	18.8	16.0	20.5	19.3	19.2	16.3	21.8	19.5	19.6
Plate beef	do	9.5	12.9	14.3	14.4	12.6	13.4	11.6	12.0	10.5	13.5	12.4	12.4
Pork chops	do	24.0	34.8	33.4	34.0	22.0	35.8	37.1	36.7	21.4	33.6	31.0	32.2
Bacon	do	33.1	43.6	39.7	39.1	26.5	35.8	36.8	36.7	35.0	46.2	42.5	41.4
Ham	do	31.0	52.1	49.7	45.9	32.0	54.2	55.7	54.0	32.5	53.2	50.0	49.3
Lamb	do	20.0	32.1	37.1	35.5	19.3	33.7	35.7	37.3	23.3	38.1	37.8	35.0
Hens	do	20.5	32.0	28.8	30.6	21.8	40.7	36.3	37.5	18.0	33.2	28.5	29.1
Salmon, canned, red	do	.....	15.4	29.9	29.5	.....	29.9	26.0	26.1	.....	36.8	31.7	30.9
Milk, fresh	Quart	10.0	17.5	15.7	15.7	8.7	12.0	12.0	12.0	10.3	20.0	18.3	19.0
Milk, evaporated	15–16 oz. can	.....	14.8	13.2	13.2	.....	13.0	10.4	10.4	.....	15.0	11.9	12.0
Butter	Pound	39.7	49.3	45.0	46.6	38.6	54.1	48.6	50.0	38.8	50.3	43.6	45.0
Oleomargarine	do	.....	32.5	30.5	31.8	.....	27.9	25.4	26.8	.....	35.6	32.5	32.6
Nut margarine	do	.....	29.2	26.0	27.0	.....	27.0	26.0	25.8	.....	31.4	28.1	27.5
Cheese	do	25.0	31.3	30.9	30.9	22.5	32.9	31.9	32.7	23.0	31.0	29.8	30.0
Lard	do	15.8	19.5	18.1	18.0	15.3	17.5	17.2	17.0	15.3	18.7	17.4	17.1
Crisco	do	.....	20.0	22.5	21.7	.....	19.6	21.8	21.9	.....	24.9	21.5	21.5
Eggs, strictly fresh	Dozen	33.7	42.8	33.2	38.4	34.7	48.7	31.9	42.3	32.6	42.4	35.2	40.4
Bread	Pound	5.9	10.9	9.8	9.6	5.5	8.5	8.6	8.5	5.4	9.5	9.2	9.0
Flour	do	3.4	5.6	5.4	5.3	3.2	5.6	5.0	4.8	3.5	6.1	5.6	5.5
Corn meal	do	2.7	3.3	3.0	3.0	2.5	3.6	3.1	3.1	2.5	3.2	2.8	2.9
Rolled oats	do	.....	11.2	9.9	9.8	.....	9.9	8.3	8.1	.....	11.4	9.5	9.3
Corn flakes	8-oz. pkg	.....	13.1	9.9	9.9	.....	10.5	8.9	8.9	.....	12.9	10.0	10.0
Cream of Wheat	28-oz. pkg	.....	30.8	26.1	26.1	.....	27.6	24.6	24.5	.....	31.0	27.1	27.0
Macaroni	Pound	.....	21.5	21.7	21.6	.....	20.6	18.8	18.6	.....	20.6	19.5	19.5
Rice	do	8.6	8.3	9.3	9.1	9.0	9.2	9.2	9.5	8.2	8.8	9.3	9.4
Beans, navy	do	.....	9.8	11.4	11.3	.....	7.8	10.8	9.7	.....	9.2	12.2	12.1
Potatoes	do	2.3	4.8	4.0	3.4	1.8	3.8	2.3	2.0	2.2	5.1	4.0	3.3
Onions	do	.....	6.7	8.4	7.1	.....	5.6	5.0	4.8	.....	7.0	6.8	6.2
Cabbage	do	.....	6.1	4.7	4.5	.....	4.7	2.7	3.5	.....	6.5	4.8	4.9
Beans, baked	No. 2 can	.....	14.0	13.5	13.3	.....	12.8	12.1	11.9	.....	16.1	15.3	15.2
Corn, canned	do	.....	15.9	15.7	15.8	.....	16.1	14.2	13.8	.....	17.5	16.3	15.9
Peas, canned	do	.....	17.8	17.4	16.9	.....	16.5	15.6	15.4	.....	20.3	20.4	20.4
Tomatoes, canned	do	.....	12.1	13.4	12.8	.....	11.0	11.6	11.1	.....	11.8	12.9	11.1
Sugar, granulated	Pound	5.9	7.5	8.7	8.4	5.2	6.6	7.5	7.4	5.8	7.4	8.3	8.0
Tea	do	60.0	89.8	89.5	87.7	56.0	65.2	66.1	64.1	61.3	84.0	81.8	81.5
Coffee	do	32.0	35.0	35.9	35.2	24.8	31.0	31.8	32.5	28.8	36.5	37.1	37.0
Prunes	do	.....	17.8	22.4	21.8	.....	19.1	18.7	19.0	.....	20.6	24.5	24.1
Raisins	do	.....	30.4	24.3	21.9	.....	27.5	21.6	19.9	.....	32.0	24.6	23.7
Bananas	Dozen	.....	26.2	25.4	23.5	.....	26.6	25.0	25.9	.....	36.7	33.0	33.1
Oranges	do	.....	58.5	85.7	65.0	.....	59.1	72.9	67.9	.....	52.9	70.5	62.8

[1] 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.

OF FOOD FOR 51 CITIES ON CERTAIN 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.			
Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
1913	1921						1913	1921						1913	1921		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
[1] 35.8	[1] 60.6	[1] 60.4	[1] 62.1	44.9	44.7	45.3	23.3	37.9	38.3	38.0	30.2	32.2	31.4	21.4	35.0	36.5	34.2
35.6	53.3	52.2	51.6	41.3	38.5	38.5	19.8	32.4	32.6	32.0	25.9	28.0	26.9	20.4	33.6	33.8	31.7
25.6	33.9	35.7	36.2	34.3	34.6	34.7	17.0	27.7	27.9	27.8	23.5	25.2	24.6	20.4	28.6	29.2	28.3
18.7	24.0	23.4	23.4	23.1	24.7	24.7	15.5	20.1	20.2	20.1	16.8	16.8	16.6	15.0	22.1	21.9	21.0
.....	15.2	16.2	15.8	10.3	10.2	10.5	11.5	12.7	11.4	11.6	11.6	11.7	11.2	12.1	15.5	14.4	14.6
25.0	43.3	38.3	39.9	37.5	35.9	38.5	23.0	39.9	38.5	40.5	35.7	33.8	33.8	25.0	40.4	34.5	34.5
25.8	38.6	37.0	37.5	47.6	43.7	44.0	23.3	33.8	34.7	34.8	52.3	47.7	47.7	27.0	39.9	36.4	37.4
32.0	59.6	59.6	55.4	61.5	61.0	56.1	28.0	50.7	51.0	48.5	55.8	57.7	54.1	28.8	48.8	48.2	47.3
20.5	35.1	39.5	39.1	32.5	36.9	38.7	15.3	27.2	31.7	31.2	29.7	32.7	31.7	22.5	38.2	41.1	42.8
26.2	44.5	38.6	38.8	43.4	38.2	38.2	21.0	36.5	35.6	34.9	37.8	32.3	32.2	21.9	42.7	38.4	37.9
.....	34.4	30.0	30.0	38.3	32.8	33.0	.....	30.3	27.6	27.4	40.8	35.8	35.9	.....	30.9	27.6	27.4
8.9	15.5	13.5	13.5	15.0	14.0	14.0	8.0	14.0	14.0	14.0	14.3	14.0	14.0	12.0	18.7	18.7	18.7
.....	13.9	11.4	11.4	13.4	10.6	10.6	.....	12.4	10.2	10.1	13.5	11.3	11.9	.....	12.9	10.5	10.3
37.4	51.9	45.8	46.7	50.1	44.9	45.7	35.8	50.2	43.3	46.9	49.3	46.9	49.1	37.0	48.1	44.1	43.4
.....	30.1	29.0	28.8	28.3	25.8	25.8	.....	28.8	26.8	26.7	32.5	30.0	30.0	.....	29.1	27.4	27.5
.....	27.4	26.3	26.5	25.5	24.5	24.5	.....	27.9	26.2	26.0	32.3	29.8	30.0	.....	29.0	28.0	28.0
22.4	33.0	33.8	33.9	33.2	32.3	33.3	19.5	31.4	30.4	30.4	37.0	34.6	35.0	20.5	29.6	28.8	29.3
15.8	18.3	17.9	17.7	16.9	16.6	16.6	14.4	17.0	16.0	16.0	21.6	20.9	20.9	15.3	19.8	18.5	18.6
.....	21.7	23.5	23.7	19.9	22.2	22.9	.....	19.4	20.4	20.4	25.9	27.0	26.8	.....	20.1	22.3	22.1
47.1	76.1	57.6	69.4	66.1	53.1	61.9	33.8	54.7	37.4	48.3	52.9	45.5	53.6	33.3	40.2	32.6	34.0
5.9	9.9	8.5	8.5	10.6	8.4	8.4	5.6	8.7	8.6	8.6	9.7	9.7	9.7	6.4	10.8	9.6	9.6
3.7	6.6	5.8	5.5	6.0	5.2	5.2	3.0	5.3	4.7	4.4	6.4	5.8	5.6	3.8	6.2	6.1	5.9
3.5	5.4	5.0	4.9	7.6	6.9	7.1	2.6	4.1	3.4	3.5	4.9	4.0	3.9	2.6	3.0	3.0	3.0
.....	9.0	8.1	8.4	9.8	8.3	8.2	.....	8.4	7.9	7.7	8.7	6.5	6.6	.....	10.9	9.6	9.4
.....	11.5	10.2	10.0	10.9	9.4	9.5	.....	10.6	9.3	9.1	13.7	11.9	11.9	.....	12.4	10.1	10.0
.....	29.6	26.0	26.0	29.0	25.7	25.3	.....	27.9	25.3	25.4	33.8	28.8	28.8	.....	30.3	25.0	25.0
.....	24.4	24.1	24.0	24.6	24.4	24.1	.....	22.2	22.1	22.0	22.6	22.3	22.7	.....	21.2	19.8	19.7
9.4	10.0	10.8	10.9	9.1	10.1	10.2	9.3	8.8	9.4	9.5	9.4	9.9	10.1	5.5	6.0	6.9	6.7
.....	7.8	11.3	10.5	8.7	11.4	11.4	.....	7.9	11.2	10.6	9.0	9.5	9.5	.....	9.6	10.9	11.0
1.7	3.4	2.4	1.7	3.7	2.0	2.0	2.0	3.1	2.1	1.9	2.5	1.9	1.3	2.3	4.0	3.0	2.4
.....	6.5	7.2	5.9	5.5	6.6	5.2	.....	5.8	5.9	5.1	5.2	4.9	4.0	.....	5.6	6.2	5.5
.....	5.8	5.4	5.1	5.6	3.8	3.6	.....	4.2	2.8	2.4	5.1	5.0	3.2	.....	6.0	4.2	4.2
.....	15.6	14.7	14.9	12.7	12.4	12.4	.....	11.4	11.3	11.1	20.0	19.5	19.5	.....	11.7	11.5	11.3
.....	19.2	18.5	18.6	19.2	18.3	18.4	.....	16.0	15.0	15.2	17.6	16.3	17.0	.....	14.6	14.7	14.7
.....	20.5	21.4	21.5	20.2	19.8	19.6	.....	16.2	16.5	16.7	17.2	16.2	16.2	.....	18.5	19.3	20.0
.....	12.9	13.7	14.0	12.2	13.9	12.8	.....	12.1	13.3	12.7	13.8	16.3	16.3	.....	11.4	10.9	10.1
5.6	6.9	8.0	7.7	7.0	7.8	7.6	5.6	6.9	8.0	7.6	9.5	9.7	9.8	5.4	6.6	7.7	7.4
58.6	66.5	68.7	68.9	60.1	57.4	57.4	45.0	62.6	60.7	61.1	76.2	78.6	78.6	50.0	74.1	73.9	73.3
33.0	41.3	42.9	42.9	35.3	34.8	35.1	29.3	32.8	33.8	34.4	46.4	45.2	45.2	26.3	32.4	32.9	32.9
.....	19.5	21.0	20.6	18.8	20.5	20.1	.....	18.5	19.7	19.6	19.5	21.9	21.7	.....	19.0	20.9	21.2
.....	28.4	21.0	20.0	29.7	22.7	21.1	.....	27.9	20.0	18.0	32.0	25.8	24.8	.....	28.5	24.1	21.5
.....	44.6	43.9	42.0	37.4	33.9	34.8	.....	43.9	38.1	37.9	[2] 12.8	[2] 14.8	[2] 13.8	.....	38.6	32.1	30.6
.....	58.5	69.0	65.4	56.6	68.3	64.4	.....	59.4	65.0	64.3	48.5	62.1	64.4	.....	52.5	67.5	50.0

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	Chicago, Ill.				Cincinnati, Ohio.				Cleveland. Ohio.			
		Sept. 15—		Aug. 15, 1922.	Sept 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept 15, 1922.
		1913	1921			1913	1921			1913	1921		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	24.3	38.6	38.6	39.1	23.7	33.9	34.5	33.5	25.4	35.5	37.6	35.9
Round steak	do	21.4	31.6	30.8	30.6	21.2	31.0	31.4	30.7	22.9	29.9	31.5	30.3
Rib roast	do	20.3	30.1	28.8	29.0	18.5	27.9	27.3	27.4	18.9	25.5	25.6	24.4
Chuck roast	do	15.9	20.4	19.3	19.5	14.5	18.1	17.8	17.3	16.9	19.4	18.9	19.0
Plate beef	do	11.9	11.9	11.5	11.8	11.7	13.6	13.0	13.0	11.7	11.8	11.0	10.7
Pork chops	do	21.8	36.9	33.8	35.3	22.7	36.6	35.0	37.2	24.4	38.1	35.7	38.3
Bacon	do	32.6	50.8	47.4	46.6	26.0	35.1	34.9	35.3	29.6	44.2	39.0	40.0
Ham	do	32.2	51.1	51.1	49.6	29.8	52.6	51.2	49.7	37.3	53.1	52.0	49.6
Lamb	do	19.9	33.5	34.9	35.0	16.8	30.4	32.3	32.0	18.7	31.0	33.5	33.4
Hens	do	19.2	36.2	32.8	33.0	26.0	37.8	35.5	34.1	21.9	36.5	35.2	34.1
Salmon, canned, red	do	.....	35.0	32.9	32.7	.....	32.5	27.7	27.8	.....	34.3	30.1	30.0
Milk, fresh	Quart	8.0	12.3	12.0	12.0	8.0	13.0	12.0	12.0	8.0	13.0	11.7	12.0
Milk, evaporated	15–16 oz. can	.....	12.4	9.8	9.9	.....	12.9	10.1	10.1	.....	12.8	10.1	10.2
Butter	Pound	35.3	48.2	40.5	44.8	38.0	49.8	41.5	43.3	38.3	52.6	44.1	48.5
Oleomargarine	do	.....	25.4	23.6	23.5	.....	28.9	28.6	28.6	.....	29.9	27.7	28.0
Nut margarine	do	.....	24.6	22.7	22.1	.....	26.6	27.0	27.2	.....	27.5	25.9	26.9
Cheese	do	25.7	36.1	34.5	34.1	21.0	34.7	32.0	32.5	24.0	31.0	31.1	30.9
Lard	do	15.0	17.2	16.6	16.7	14.3	15.8	14.9	15.2	16.4	18.5	17.8	17.5
Crisco	do	.....	21.1	22.3	22.3	.....	20.6	21.8	21.6	.....	21.1	22.2	22.7
Eggs, strictly fresh	Dozen	30.4	46.6	34.0	42.0	30.1	43.1	31.2	41.0	36.8	51.0	36.4	45.5
Bread	Pound	6.1	9.8	9.7	9.7	4.8	9.4	8.4	8.4	5.6	9.1	7.9	7.9
Flour	do	2.9	5.1	4.7	4.3	3.3	5.7	5.1	4.6	3.2	5.7	4.9	4.7
Corn meal	do	2.8	6.3	5.4	5.5	2.7	3.4	2.9	2.8	2.9	4.4	3.3	3.5
Rolled oats	do	.....	9.2	8.0	8.1	.....	9.9	8.5	8.4	.....	10.2	8.5	8.4
Corn flakes	8-oz. pkg	.....	10.9	9.3	9.4	.....	11.5	9.4	9.3	.....	12.5	9.8	9.9
Cream of Wheat	28-oz. pkg	.....	28.0	24.8	24.3	.....	29.6	24.3	24.6	.....	28.5	25.7	25.6
Macaroni	Pound	.....	18.6	18.4	18.4	.....	19.0	16.9	16.3	.....	21.6	20.0	20.0
Rice	do	9.0	9.2	9.8	9.9	8.8	9.6	9.5	9.2	9.0	8.9	8.9	9.2
Beans, navy	do	.....	7.5	11.7	11.2	.....	7.1	11.5	11.0	.....	7.3	12.2	11.0
Potatoes	do	1.8	4.1	2.6	2.4	2.4	4.7	3.0	2.6	2.0	4.4	2.3	2.3
Onions	do	.....	5.1	5.0	4.6	.....	5.7	5.3	4.8	.....	5.6	5.6	4.8
Cabbage	do	.....	5.1	3.5	3.6	.....	6.0	4.3	3.9	.....	5.7	3.1	3.1
Beans, baked	No. 2 can	.....	13.4	13.0	12.6	.....	12.6	11.7	11.8	.....	13.3	12.6	12.7
Corn, canned	do	.....	14.8	14.2	14.2	.....	14.9	14.0	14.0	.....	17.7	15.7	16.2
Peas, canned	do	.....	15.7	15.7	15.7	.....	16.9	16.2	16.0	.....	17.7	17.6	17.3
Tomatoes, canned	do	.....	12.7	14.1	13.9	.....	12.3	13.6	13.2	.....	12.8	14.1	14.3
Sugar, granulated	Pound	5.2	6.7	7.7	7.7	5.6	6.8	7.9	7.5	5.6	7.3	8.2	7.9
Tea	do	55.0	66.7	64.9	66.4	60.0	70.2	68.2	68.2	50.0	64.7	67.3	67.5
Coffee	do	30.7	33.2	34.4	34.2	25.6	30.2	31.2	31.2	26.5	36.6	37.4	37.7
Prunes	do	.....	19.7	21.2	21.7	.....	22.7	19.4	19.9	.....	18.5	20.8	21.5
Raisins	do	.....	29.2	23.9	23.3	.....	29.5	22.4	21.4	.....	27.4	21.7	21.5
Bananas	Dozen	.....	38.4	35.1	35.7	.....	38.6	33.9	31.9	.....	42.9	42.9	43.1
Oranges	do	.....	49.1	66.3	67.9	.....	49.9	53.7	48.2	.....	51.4	59.6	61.2

[1] 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.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Columbus, Ohio.			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
			1913	1921			1913	1921			1913	1921			1913	1921		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
35.3	35.1	35.2	23.0	34.6	36.8	35.3	24.3	32.6	32.7	31.4	26.3	37.1	37.1	37.4	[1] 35.6	[1] 56.9	[1] 56.4	[1] 57.0
30.8	30.5	30.3	21.3	33.2	34.5	33.0	21.4	27.9	29.2	27.5	21.0	30.1	30.8	30.0	28.4	45.1	42.8	42.8
28.6	25.9	26.6	20.8	27.8	28.3	26.8	17.8	23.7	24.4	23.6	20.0	27.7	26.6	26.0	23.2	29.2	27.1	27.0
22.1	20.6	20.3	16.9	23.2	21.9	22.2	15.8	17.6	17.5	17.0	15.0	19.9	19.3	19.0	18.4	21.2	20.1	20.3
14.4	13.0	13.8	13.2	17.8	18.1	17.5	9.7	9.9	9.7	9.6	11.0	11.9	11.5	11.9	.....	13.4	12.3	12.3
32.6	31.1	31.1	22.0	37.5	35.0	36.4	20.4	37.4	32.6	35.8	22.3	37.4	36.7	40.1	22.2	37.4	34.0	34.4
40.5	37.1	36.9	38.3	48.6	45.8	44.9	29.0	48.0	44.8	43.8	24.7	41.1	40.7	40.8	25.7	41.6	36.4	36.9
51.3	51.7	48.2	32.5	54.2	55.8	54.5	33.3	57.2	55.4	52.9	27.0	54.9	56.0	52.0	33.0	53.5	50.6	47.9
35.0	34.7	33.0	23.3	36.0	40.8	39.0	16.0	31.8	34.7	35.0	16.0	32.2	36.5	36.5	19.2	35.2	39.3	39.9
37.0	33.5	32.6	18.7	30.6	31.2	30.5	19.7	33.9	30.2	29.3	20.5	38.0	35.6	34.9	24.5	49.2	42.6	42.4
33.8	32.2	32.2	.....	34.7	32.4	31.6	.....	38.0	35.2	34.8	.....	32.7	30.6	30.4	.....	35.0	30.8	30.3
12.0	11.0	11.0	10.0	15.0	15.0	15.0	8.4	10.8	9.8	9.8	8.0	13.0	13.0	13.0	9.0	13.0	13.0	13.0
14.2	10.5	10.7	.....	14.8	12.3	12.1	.....	13.0	10.4	10.4	.....	13.0	10.5	10.5	.....	15.0	12.3	12.4
49.9	41.4	44.9	38.3	48.3	44.2	45.7	38.6	46.4	38.0	42.6	35.9	50.0	43.4	47.1	35.3	49.6	44.3	44.5
27.6	25.5	25.2	.....	26.0	26.3	26.3	.....	32.3	29.0	28.9	.....	28.4	26.1	26.8	.....	32.3	29.7	29.7
26.3	25.0	25.0	.....	29.6	29.2	29.5	.....	29.4	28.0	27.8	.....	27.3	24.6	25.3	.....	31.3	30.7	30.7
30.6	30.3	31.5	20.0	33.4	32.4	31.8	26.1	35.9	33.7	33.9	20.7	33.3	30.6	31.2	23.2	32.8	34.3	33.5
15.5	15.3	15.1	16.5	21.7	20.8	20.6	16.5	19.1	18.8	18.9	16.9	18.0	16.8	16.8	15.3	17.1	16.2	16.3
20.9	22.4	22.4	.....	19.9	22.2	22.1	.....	22.4	24.0	24.1	.....	20.0	22.5	22.5	.....	21.5	22.6	22.4
41.2	27.3	39.1	.....	40.9	35.0	35.5	32.1	45.0	34.6	39.7	32.0	51.5	36.6	43.3	46.9	75.7	56.2	64.6
9.7	7.8	7.6	5.3	10.1	8.9	8.8	5.5	10.2	8.4	8.4	5.6	9.4	8.6	8.6	6.2	10.5	9.2	9.2
5.4	4.7	4.5	3.2	5.0	4.6	4.4	2.6	4.0	3.9	3.7	3.1	5.5	5.0	4.5	3.4	5.9	5.4	5.1
3.7	3.0	3.0	3.3	3.9	3.5	3.2	2.6	3.4	3.2	3.0	2.8	5.0	4.3	4.3	3.5	7.5	6.5	6.3
11.0	9.0	8.8	.....	11.6	10.4	10.3	.....	10.0	9.0	8.8	.....	10.4	9.1	9.1	.....	11.0	9.5	9.7
11.0	9.6	9.6	.....	12.9	11.3	11.0	.....	13.3	10.1	10.1	.....	11.5	9.1	9.2	.....	13.7	10.0	10.2
30.1	26.2	26.2	.....	31.7	25.7	25.8	.....	29.7	25.4	25.4	.....	29.9	25.1	25.1	.....	30.3	27.7	28.1
21.2	19.8	19.8	.....	21.5	21.0	21.4	.....	21.5	20.8	20.9	.....	19.4	19.4	19.2	.....	25.7	24.0	24.2
10.1	10.0	10.4	9.3	9.0	11.5	10.5	8.6	9.2	9.9	9.9	8.4	7.8	9.3	9.4	10.0	9.2	10.2	10.2
7.2	12.7	10.7	.....	9.2	11.3	11.2	.....	8.9	10.8	10.9	.....	6.7	12.1	10.7	.....	7.9	10.9	10.7
4.7	2.9	2.4	2.8	4.9	4.0	3.4	1.8	3.2	2.4	1.8	1.9	3.7	2.1	1.9	1.9	3.5	2.5	2.1
6.4	6.5	5.7	.....	6.4	7.3	6.0	.....	5.2	5.7	4.4	.....	5.3	5.5	4.3	.....	6.0	7.2	6.2
7.7	3.9	4.0	.....	6.1	5.7	5.0	.....	2.9	2.2	1.8	.....	4.8	3.0	2.8	.....	6.3	3.4	3.7
14.0	13.4	13.0	.....	16.4	15.3	15.8	.....	16.7	14.8	15.0	.....	12.0	12.5	12.6	.....	13.9	12.9	12.9
13.8	13.4	13.1	.....	17.9	17.2	17.4	.....	15.4	14.8	14.7	.....	15.4	15.0	15.1	.....	15.8	15.3	15.2
15.6	14.9	14.9	.....	22.1	21.5	21.4	.....	18.0	16.4	16.2	.....	16.0	16.5	17.0	.....	18.3	17.6	17.2
12.4	14.5	14.3	.....	14.1	14.5	14.2	.....	12.0	13.8	13.4	.....	12.1	13.3	13.3	.....	12.5	13.8	13.7
7.3	8.5	8.0	5.9	7.7	8.7	8.6	5.9	7.9	8.9	8.3	5.7	6.9	8.0	7.5	5.7	7.0	8.1	8.1
80.9	78.0	78.1	66.7	87.6	90.9	89.1	52.8	70.9	69.4	69.3	43.3	62.0	63.8	64.5	44.2	57.3	59.9	59.9
33.6	35.5	35.9	36.7	38.7	41.4	41.8	29.4	34.9	35.3	35.3	29.3	34.8	36.0	36.4	33.0	39.2	38.6	38.5
19.1	20.4	22.7	.....	22.2	23.7	23.6	.....	19.9	21.3	21.3	.....	17.6	21.2	20.3	.....	19.0	18.3	17.6
27.4	21.1	20.1	.....	28.3	25.6	24.8	.....	29.8	24.2	21.5	.....	28.2	21.9	20.0	.....	29.8	23.8	22.9
37.9	35.0	35.8	.....	35.0	31.9	32.1	.....	[2] 13.3	[2] 11.9	[2] 11.6	.....	33.3	31.6	31.3	.....	[2] 10.3	[2] 10.3	[2] 10.0
52.7	65.5	68.9	.....	54.2	75.9	72.0	.....	51.7	65.8	65.4	.....	50.4	61.7	60.9	.....	53.8	54.2	49.1

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
					1913	1921			1913	1921		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	30.5	30.8	30.4	26.0	36.5	36.5	36.6	25.8	35.4	35.4	35.0
Round steak	do	30.1	29.6	29.6	25.2	35.2	34.9	34.8	21.5	30.7	29.6	29.2
Rib roast	do	24.8	24.6	24.6	17.8	25.7	26.2	26.1	22.5	26.0	26.1	25.3
Chuck roast	do	21.5	21.0	21.0	16.3	22.0	21.9	21.9	15.0	18.5	17.4	17.3
Plate beef	do	16.5	15.4	15.2	12.5	15.1	13.2	13.8	11.4	10.3	10.3	10.3
Pork chops	do	34.6	29.2	30.8	22.8	36.2	32.9	34.9	23.5	35.4	33.1	33.5
Bacon	do	51.6	49.3	48.1	30.8	41.2	38.4	38.7	29.0	39.8	38.2	38.3
Ham	do	52.7	51.4	49.3	31.7	53.9	52.4	49.2	30.3	52.1	48.1	46.2
Lamb	do	33.0	36.3	36.3	20.7	33.8	39.3	39.2	20.8	36.9	35.5	34.2
Hens	do	31.2	31.0	34.8	21.0	35.4	32.3	33.1	23.5	38.1	32.8	34.3
Salmon, canned, red	do	34.6	31.5	31.3	.....	18.1	37.5	37.6	.....	36.1	31.1	31.2
Milk, fresh	Quart	15.8	15.3	15.3	8.0	12.0	10.0	10.0	12.3	20.0	16.7	17.7
Milk, evaporated	15-16-oz. can	13.9	11.4	11.5	.....	13.4	9.9	9.9	.....	13.8	11.3	11.1
Butter	Pound	47.2	42.2	44.4	36.8	47.7	41.1	44.9	39.8	50.7	44.7	46.7
Oleomargarine	do	30.5	31.3	31.3	.....	29.8	26.9	26.4	.....	30.4	28.5	30.0
Nut margarine	do	29.4	28.1	28.1	.....	27.6	26.4	26.6	.....	28.5	26.8	27.5
Cheese	do	29.8	29.6	30.2	21.3	33.2	31.2	32.5	22.5	30.5	30.0	30.4
Lard	do	19.8	17.9	17.8	15.2	15.0	14.9	14.8	15.5	20.7	17.2	17.5
Crisco	do	21.3	24.4	24.4	.....	20.9	22.7	22.0	.....	21.2	22.8	22.5
Eggs, strictly fresh	Dozen	39.3	31.2	36.2	30.4	40.6	28.2	39.3	36.7	54.4	38.9	43.6
Bread	Pound	8.5	6.9	6.6	5.1	8.6	7.3	7.3	6.2	10.4	10.6	10.6
Flour	do	5.5	5.1	4.9	3.2	5.2	4.6	4.5	3.8	6.3	5.9	5.7
Corn meal	do	3.9	3.6	3.5	2.6	3.4	3.0	3.0	3.1	3.4	3.0	3.1
Rolled oats	do	10.6	8.4	8.6	.....	9.4	7.4	8.0	.....	11.0	9.7	9.5
Corn flakes	8-oz. pkg	12.5	9.6	10.0	.....	11.6	9.0	9.0	.....	13.0	9.7	9.6
Cream of Wheat	28-oz. pkg	29.5	24.7	24.6	.....	31.7	25.8	26.1	.....	30.3	26.5	26.3
Macaroni	Pound	20.2	20.1	19.9	.....	20.1	19.1	19.2	.....	20.9	19.1	19.3
Rice	do	7.8	8.1	8.2	9.2	9.4	10.0	10.0	6.6	8.4	8.7	8.6
Beans, navy	do	8.8	10.2	10.0	.....	7.5	12.8	10.9	.....	9.3	11.9	12.0
Potatoes	do	4.9	4.0	3.7	2.1	4.5	2.7	2.3	2.6	4.7	3.5	2.8
Onions	do	5.8	6.1	5.5	.....	6.2	6.4	5.4	.....	6.0	7.0	6.7
Cabbage	do	6.1	5.2	4.9	.....	6.4	4.4	4.4	.....	6.4	4.3	4.3
Beans, baked	No. 2 can	13.5	14.2	14.6	.....	14.0	13.1	12.9	.....	13.2	12.4	12.5
Corn, canned	do	13.3	13.8	13.4	.....	14.6	14.0	14.0	.....	16.4	15.8	15.7
Peas, canned	do	17.8	18.7	18.3	.....	15.6	15.6	15.9	.....	18.4	18.2	17.9
Tomatoes, canned	do	12.2	13.1	12.1	.....	13.4	14.8	14.3	.....	12.1	11.3	10.7
Sugar, granulated	Pound	7.1	8.1	7.5	6.0	7.5	8.8	8.3	5.9	7.3	8.2	7.9
Tea	do	71.8	73.1	73.1	60.0	82.2	74.2	74.2	60.0	86.2	85.9	84.2
Coffee	do	29.7	31.4	31.9	30.0	37.8	37.3	37.2	34.5	37.6	37.2	36.4
Prunes	do	18.2	22.7	22.6	.....	21.1	21.8	21.3	.....	17.9	22.2	21.1
Raisins	do	28.8	24.9	25.2	.....	32.1	24.1	24.0	.....	31.4	24.8	25.6
Bananas	Dozen	30.3	28.3	27.7	.....	30.3	28.0	27.0	.....	28.8	22.7	22.8
Oranges	do	47.1	58.3	59.8	.....	50.9	64.6	60.9	.....	53.0	65.0	52.5

[1] 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.

OF FOOD FOR 31 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif.				Louisville, Ky.				Manchester, N. H.			
Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
1913	1921			1913	1921			1913	1921			1913	1921			1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
24.7	36.4	37.0	36.2	25.0	33.3	33.7	32.7	24.0	34.0	34.4	34.5	23.0	31.8	31.0	30.7	[1]37.0	[1]56.4	[1]53.8	[1]53.4
22.3	32.6	32.0	31.4	20.0	30.6	32.5	30.6	21.0	28.6	28.5	28.6	20.0	29.9	28.9	28.3	30.5	48.1	45.4	44.5
17.7	26.0	24.8	24.4	20.0	26.6	26.8	26.1	19.6	28.3	28.3	29.1	18.2	24.5	23.0	22.6	21.0	28.1	26.5	26.5
15.4	18.3	18.2	17.8	17.5	19.3	20.1	19.8	15.8	17.2	17.4	17.3	15.9	19.1	17.6	17.2	16.8	22.9	21.9	21.5
12.1	11.4	10.6	10.5	13.0	14.3	15.0	14.6	12.1	12.3	12.0	12.1	13.1	15.1	12.7	12.8	.....	16.4	15.6	15.4
22.8	35.6	32.8	34.1	21.5	34.8	32.8	33.1	25.4	43.0	41.4	41.3	21.6	35.2	31.0	33.4	23.0	40.8	34.8	38.5
31.3	47.6	44.7	44.7	36.7	48.5	42.1	41.8	33.1	54.3	51.2	51.8	29.5	40.6	37.6	37.4	24.0	36.7	33.6	33.5
30.3	52.6	52.2	49.9	30.0	52.3	53.1	50.3	35.8	61.3	62.8	62.0	29.0	49.1	46.4	41.9	29.5	51.2	48.5	46.0
18.3	30.2	32.5	31.1	20.0	35.0	36.4	35.0	18.8	28.6	33.0	32.6	17.8	29.0	32.5	33.3	21.8	33.0	37.7	37.5
16.8	31.6	29.4	29.0	20.0	31.5	27.8	28.9	26.2	42.7	37.9	39.0	21.8	29.8	29.4	28.9	25.0	48.3	43.3	43.0
....	32.3	31.7	31.7	....	37.2	31.5	31.8	....	44.5	40.7	41.0	....	29.8	29.6	29.5	.....	33.8	31.4	31.4
9.3	14.7	12.0	12.0	10.0	13.0	13.0	13.7	10.0	14.3	14.0	14.0	8.8	11.0	10.3	11.0	8.0	15.0	12.0	12.0
....	14.4	11.0	10.9	....	14.3	11.7	11.7	....	11.9	9.9	10.1	....	13.9	10.5	10.3	.....	14.7	12.6	12.7
38.8	48.4	41.9	44.8	42.5	49.1	45.8	46.9	43.5	56.1	51.1	55.8	39.6	51.2	43.9	48.1	39.0	56.4	48.1	49.2
....	29.3	26.9	26.7	....	31.3	31.3	30.3	....	32.9	30.2	31.1	....	29.2	26.9	27.2	.....	30.3	27.6	27.5
....	27.3	27.6	27.5	....	28.4	28.4	28.8	....	29.4	27.5	28.5	....	28.2	25.0	26.2	.....	26.0	22.7	22.7
21.8	34.3	32.4	32.3	23.3	32.9	31.5	32.2	19.5	37.7	35.7	35.7	22.5	29.7	28.9	29.9	21.5	33.3	33.3	33.3
16.4	18.9	17.5	17.3	16.5	20.5	19.9	18.5	17.9	17.9	19.0	19.4	16.3	16.3	15.3	14.8	16.3	17.9	17.4	17.3
....	23.1	24.6	24.4	....	21.9	23.0	22.7	....	21.9	24.5	24.7	....	21.7	22.3	22.7	.....	21.4	22.7	22.8
28.8	40.1	29.7	33.9	32.5	40.2	33.1	34.5	46.3	54.0	37.9	50.8	30.0	37.0	28.1	36.6	36.3	67.4	49.0	57.1
6.0	9.8	7.9	7.9	6.0	9.5	8.4	8.3	6.0	9.2	9.0	9.0	5.7	8.9	8.8	8.8	5.9	8.6	7.9	8.1
3.0	5.2	4.6	4.5	3.6	5.6	5.2	5.1	3.5	5.7	4.9	4.8	3.5	5.4	5.1	4.8	3.4	6.3	5.5	5.4
2.8	5.1	4.6	4.6	2.5	2.9	2.8	3.0	3.3	5.2	4.2	4.3	2.5	2.6	2.4	2.4	3.5	5.5	4.7	4.7
....	10.7	8.4	8.4	....	11.2	10.1	10.2	....	10.5	10.4	10.2	....	9.7	8.2	8.2	.....	10.0	9.2	8.8
....	12.9	9.9	9.9	....	12.6	9.8	9.8	....	12.4	10.0	10.0	....	11.5	9.4	9.3	.....	12.8	9.9	10.1
....	30.7	27.0	26.7	....	30.0	26.5	26.2	....	28.6	24.7	24.5	....	29.4	24.7	24.6	.....	29.6	26.4	26.3
....	22.6	21.3	21.2	....	21.7	21.9	21.9	....	18.4	16.7	16.8	....	19.7	17.6	17.9	.....	25.5	24.8	24.6
8.7	8.6	9.7	9.6	8.3	7.9	8.5	8.5	7.7	9.5	9.7	9.9	8.3	8.7	9.1	9.0	8.8	8.6	9.1	9.2
....	8.3	12.4	11.6	....	8.3	12.0	11.3	....	8.2	9.6	9.6	....	6.7	12.4	11.2	.....	7.9	11.8	11.2
2.0	3.9	2.3	2.3	2.4	4.9	3.5	3.1	1.7	3.6	2.3	2.5	2.4	4.1	2.1	2.1	1.6	3.3	2.2	1.9
....	6.6	6.5	5.7	....	7.0	7.0	6.2	....	4.5	4.8	4.6	....	4.0	4.9	3.8	.....	6.0	6.4	5.3
....	5.0	3.5	3.9	....	5.9	5.5	4.6	....	4.0	3.9	4.0	....	7.1	3.7	3.6	.....	5.7	3.8	4.2
....	14.8	14.6	14.5	....	14.1	13.3	13.5	....	15.8	14.1	14.3	....	13.0	12.2	12.2	.....	16.3	15.2	15.2
....	14.6	13.6	13.6	....	15.9	15.1	14.8	....	17.6	17.3	17.4	....	15.6	14.9	14.5	.....	19.2	18.2	18.1
....	15.2	15.5	15.5	....	19.0	19.5	18.8	....	18.1	19.3	19.8	....	17.1	16.6	15.8	.....	21.4	21.8	21.4
....	12.8	14.5	13.7	....	11.8	14.5	13.7	....	[2]15.1	[2]15.6	[2]15.7	....	12.9	13.5	12.4	.....	[3]19.6	[3]20.0	[3]19.6
5.9	7.3	8.4	8.3	5.7	8.0	8.9	8.7	5.7	7.3	8.2	7.9	5.7	7.2	8.3	7.7	5.6	7.4	8.4	8.1
54.0	78.1	81.9	81.4	50.0	91.3	94.0	94.2	54.5	65.9	71.7	71.1	65.0	76.9	76.2	74.4	47.0	58.2	57.4	57.4
27.8	36.5	37.6	37.5	30.8	38.1	39.2	38.6	36.3	37.2	38.7	38.4	27.5	34.1	35.3	34.9	32.0	38.2	38.3	39.1
....	18.5	21.0	20.7	....	21.4	22.3	21.8	....	18.0	20.1	20.8	....	22.8	19.5	19.0	.....	18.8	20.2	20.5
....	30.7	26.3	23.8	....	33.0	24.6	24.3	....	27.0	22.8	21.6	....	28.1	23.9	22.6	.....	28.9	21.8	20.6
....	[4]12.2	[4]11.1	[4]11.2	....	[4]9.5	[4]8.9	[4]9.3	....	[4]11.0	[4]10.5	[4]10.3	....	36.8	30.5	31.1	.....	[4]10.6	[4]10.0	[4]9.7
....	51.6	60.0	63.4	....	50.4	72.5	72.2	....	33.5	44.5	47.0	....	40.0	50.5	50.8	.....	51.7	60.5	60.7

[1] No. 2½ can. [3] No. 3 can. [4] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
		1913	1921			1913	1921			1913	1921		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	24.0	30.5	31.9	32.0	23.6	38.7	38.3	37.9	24.0	32.4	32.9	32.3
Round steak	do	20.0	27.9	28.6	28.4	21.6	34.5	33.8	33.6	21.3	28.0	29.1	28.4
Rib roast	do	21.0	25.0	24.4	24.5	19.2	28.1	26.7	27.0	19.3	25.6	24.7	25.3
Chuck roast	do	15.0	17.2	17.3	17 3	16.4	23.4	21.5	21.9	17.0	18.4	18.8	18.5
Plate beef	do	11.9	12.8	12.5	12.5	12.0	13.7	11.7	12.7	10.4	10.1	8.9	9.1
Pork chops	do	22.5	31.3	29.8	30.2	21.6	38.8	36.0	37.4	20.8	35.6	33.9	36.1
Bacon	do	31.0	42.9	38.1	37.9	28.6	45.7	41.8	41.5	27.7	46.2	43.8	43.8
Ham	do	30.0	49.3	51.8	49.2	29.0	50.9	47.8	47.2	32.7	53.0	51.8	49.4
Lamb	do	20.6	32.8	35.0	35.8	20.5	34.7	35.9	36.2	14.8	28.4	33.1	32.3
Hens	do	19.5	29.9	29.4	29.8	19.8	35.1	32.2	32.5	19.4	30.6	29.6	28.3
Salmon, canned, red	do	.....	40.4	36.4	36.2	.....	41.1	32.3	32.6	.....	43.1	39.0	38.5
Milk, fresh	Quart	10.0	17.3	16.0	15.0	7.0	9.0	9.0	9.0	7.7	11.0	10.0	11.0
Milk, evaporated	15–16 oz. can	.....	14.8	10.9	11.0	.....	13.5	10.4	10.5	.....	14.4	11.4	11.5
Butter	Pound	38.0	47.3	41.0	42.8	34.8	47.6	39.6	44.5	34.6	44.7	37.1	41.6
Oleomargarine	do	.....	30.6	30.0	30.0	.....	26.4	24.5	24.8	.....	28.2	26.1	25.7
Nut margarine	do	.....	27.4	26.3	26.8	.....	25.9	24.0	24.0	.....	25.1	24.8	25.1
Cheese	do	20.8	28.9	28.9	28.8	21.3	29.7	29.5	30.2	20.8	30.1	30.9	32.1
Lard	do	16.3	16.9	15.9	15.4	15.8	18.5	17.5	17.4	15.7	16.9	16.9	16.8
Crisco	do	.....	19.7	21.4	21.6	.....	21.4	21.9	22.1	.....	22.2	23.9	24.0
Eggs, strictly fresh	Dozen	29.0	39.8	30.5	33.6	30.0	39.8	29.2	36.7	29.6	38.3	28.8	35.7
Bread	Pound	6.0	10.3	9.1	9.0	5.7	9.4	8.9	8.9	5.6	8.6	9.0	9.0
Flour	do	3.5	5.7	5.2	5.2	3.1	5.3	4.7	4.3	3.0	5.5	5.0	4.6
Corn meal	do	2.2	2.7	2.6	2.7	3.3	4.9	3.7	3.7	2.5	4.8	3.9	3.8
Rolled oats	do	.....	10.8	8.8	8.9	.....	7.5	6.8	7.0	.....	8.6	7.7	7.9
Corn flakes	8-oz. pkg	.....	12.4	9.6	9.7	.....	11.6	9.1	9.1	.....	12.3	10.3	10.4
Cream of Wheat	28-oz. pkg	.....	28.9	26.1	25.7	.....	29.4	24.8	24.8	.....	29.8	25.0	25.0
Macaroni	Pound	.....	17.4	17.1	17.6	.....	18.2	17.6	17.6	.....	17.5	17.5	17.4
Rice	do	7.5	7.2	8.2	8.4	9.0	9.3	10.2	10.2	8.6	8.7	9.6	9.6
Beans, navy	do	.....	7.8	11.3	10.9	.....	7.5	11.6	10.5	.....	8.3	10.8	10.4
Potatoes	do	2.2	4.7	3.5	3.2	1.6	4.4	2.2	2.0	1.4	3.4	1.5	1.4
Onions	do	.....	5.5	5.0	4.8	.....	6.1	5.6	4.3	.....	5.3	5.7	4.7
Cabbage	do	.....	5.2	3.8	3.3	.....	4.7	1.7	1.8	.....	4.3	2.3	2.0
Beans, baked	No. 2 can	.....	14.5	13.3	13.2	.....	12.0	11.5	11.5	.....	15.5	15.8	16.0
Corn, canned	do	.....	14.6	14.2	14.5	.....	15.4	15.2	15.0	.....	14.1	14.1	14.0
Peas, canned	do	.....	17.1	18.5	18.0	.....	15.1	15.8	15.9	.....	16.0	15.3	15.3
Tomatoes, canned	do	.....	12.5	13.2	12.4	.....	12.6	14.5	14.0	.....	15.2	15.4	15.1
Sugar, granulated	Pound	5.9	7.3	7.9	7.9	5.5	7.0	8.0	7.7	5.8	7.5	8.3	8.2
Tea	do	63.8	87.1	85.2	84.6	50.0	66.9	67.6	67.8	45.0	64.8	64.4	63.7
Coffee	do	27.5	36.5	36.5	36.9	27.5	32.0	32.5	32.7	30.8	39.4	40.7	40.7
Prunes	do	.....	21.1	20.8	21.9	.....	18.5	20.8	19.8	.....	18.9	22.8	22.6
Raisins	do	.....	32.7	25.3	23.7	.....	30.6	22.9	20.6	.....	29.5	23.1	21.6
Bananas	Dozen	.....	33.9	30.5	30.0	.....	[3] 10.1	[3] 8.8	[3] 8.7	.....	[3] 11.2	[3] 10.4	[3] 10.3
Oranges	do	.....	53.6	71.0	67.5	.....	52.9	61.9	76.1	.....	51.5	65.3	61.8

[1] Whole.

[2] No. 3 can.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
			Sept. 15—				Sept. 15—				Sept. 15—				Sept. 15—			
Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	1913	1921	Aug. 15, 1922.	Sept. 15, 1922.	1913	1921	Aug. 15, 1922.	Sept. 15, 1922.	1913	1921	Aug. 15, 1922.	Sept. 15, 1922.	1913	1921	Aug. 15, 1922.	Sept. 15, 1922.
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
32.3	29.6	30.4	28.0	42.2	43.1	44.5	32.2	48.1	49.1	49.1	22.5	30.8	31.4	31.4	26.4	42.6	43.3	42.9
32.2	29.6	29.4	28.0	41.4	41.8	42.4	29.6	40.6	40.8	41.1	18.5	28.1	28.3	28.0	25.7	41.8	42.1	41.2
26.6	24.8	24.8	21.2	33.3	33.7	33.7	24.2	34.2	34.6	35.0	17.5	27.0	27.3	27.6	21.5	36.0	36.0	36.0
21.7	19.8	19.8	18.0	22.9	22.2	23.3	20.0	24.5	24.8	25.3	14.3	18.7	19.6	19.2	16.1	22.5	21.8	22.0
16.7	15.8	15.7	12.0	11.5	11.7	11.9	.....	15.8	14.4	15.0	11.2	15.0	14.5	14.6	14.6	17.9	17.8	17.0
37.5	33.3	34.2	25.0	39.1	37.4	38.2	24.0	38.4	35.9	39.6	25.0	38.9	37.0	37.8	23.0	40.6	37.7	38.6
46.2	42.4	41.2	26.2	38.1	38.7	38.3	29.3	44.4	40.9	41.0	32.1	46.7	41.7	41.6	26.2	40.0	39.1	39.6
49.1	48.5	46.7	[1] 22.0	[1] 33.1	[1] 32.0	[1] 29.5	32.8	57.0	58.2	56.8	28.8	52.5	47.3	46.1	30.0	56.4	55.2	53.6
32.8	32.6	32.6	20.8	34.3	37.2	38.1	20.5	33.6	40.0	40.2	20.0	36.5	39.0	40.6	15.3	32.2	34.9	35.0
36.9	35.5	35.8	23.6	40.2	37.6	37.6	24.2	44.7	40.8	40.0	22.5	38.0	36.2	36.5	21.8	40.6	36.5	36.4
36.2	30.7	30.7	.....	32.7	29.3	29.3	.....	36.7	33.9	34.1	.....	38.0	36.4	37.4	.....	37.1	29.4	29.1
16.5	15.0	15.0	9.0	16.5	16.5	16.5	9.0	15.0	15.0	15.0	9.5	16.5	14.0	14.0	9.0	15.0	15.0	15.0
13.8	11.1	11.1	.....	11.9	10.2	10.2	.....	13.2	10.7	10.8	.....	13.0	10.5	10.4	.....	11.9	10.0	10.0
52.3	46.8	47.3	39.2	52.3	43.9	48.5	35.2	49.8	43.9	44.4	36.8	49.1	45.0	45.9	37.4	51.3	42.5	46.5
31.7	30.0	30.0	.....	29.9	28.4	28.4	.....	29.7	28.6	28.8	.....	30.3	27.8	28.0	.....	30.3	27.8	28.4
29.6	26.9	27.0	.....	27.6	24.8	25.0	.....	26.8	26.7	26.6	.....	28.7	26.4	26.7	.....	26.8	25.1	25.7
30.8	30.1	30.8	24.8	34.9	34.2	33.9	22.0	32.0	31.8	32.8	21.4	31.6	31.1	31.3	19.6	33.8	32.5	32.9
19.0	16.8	16.8	16.6	17.3	17.1	17.0	15.6	17.1	16.5	16.9	15.1	17.7	16.5	16.3	16.3	18.2	17.5	17.2
21.4	23.1	23.4	.....	19.6	22.0	22.2	.....	19.3	21.7	21.8	.....	20.4	23.3	23.3	.....	20.4	22.3	22.6
46.7	36.3	39.5	49.6	64.1	50.6	60.2	45.7	68.2	53.3	61.3	32.0	45.1	33.6	35.7	44.2	63.0	45.0	55.3
8.4	8.2	8.2	5.6	9.3	8.6	8.6	6.0	9.5	8.1	8.1	5.1	8.1	7.7	7.7	6.0	10.1	9.7	9.8
5.4	5.4	5.0	3.7	5.7	5.3	5.0	3.2	5.6	5.1	4.9	3.8	6.0	5.7	5.5	3.2	5.8	5.4	5.0
3.1	3.2	3.1	3.6	6.4	5.9	6.9	3.2	6.5	6.0	6.2	2.9	3.2	3.0	3.0	3.4	6.6	5.4	5.4
10.3	9.1	9.2	.....	8.6	7.5	8.0	.....	10.2	8.7	8.8	.....	9.6	8.9	8.7	.....	8.7	8.0	7.8
11.9	9.7	9.6	.....	10.1	8.9	8.9	.....	11.0	9.4	9.5	.....	11.1	9.6	9.5	.....	10.2	8.5	8.6
29.8	25.3	24.2	.....	29.1	25.4	25.4	.....	28.7	24.8	24.9	.....	29.5	24.6	24.6	.....	28.8	24.9	24.6
19.4	20.0	20.0	.....	21.8	21.5	21.1	.....	21.7	21.8	21.8	.....	9.6	9.7	9.8	.....	22.0	20.9	20.7
8.5	8.6	8.5	9.0	8.6	9.1	9.2	9.3	9.2	9.8	10.0	7.4	7.8	9.1	8.6	8.0	8.9	9.0	8.9
8.6	12.7	12.3	.....	7.9	11.7	11.3	.....	7.6	11.4	11.0	.....	7.5	11.0	10.6	.....	8.6	11.0	10.7
5.0	4.0	3.3	2.5	4.4	2.3	2.1	1.8	3.7	2.0	2.0	2.3	4.9	3.7	3.1	2.5	4.0	2.5	2.3
5.9	6.2	5.2	.....	6.6	6.2	4.7	.....	5.6	6.6	5.9	.....	5.3	4.7	4.3	.....	6.1	5.6	4.8
5.0	4.5	4.2	.....	6.1	4.0	4.2	.....	5.9	3.6	3.8	.....	4.7	4.2	4.3	.....	5.7	2.9	3.0
14.0	13.4	13.4	.....	11.9	11.4	11.4	.....	13.6	12.5	12.5	.....	13.8	12.7	12.8	.....	13.2	11.8	11.7
15.9	15.4	15.3	.....	15.8	15.1	15.0	.....	19.1	18.3	18.5	.....	13.4	12.9	13.0	.....	14.5	14.1	14.4
17.9	17.0	17.1	.....	17.8	17.5	17.2	.....	22.2	21.1	21.0	.....	18.1	16.6	16.4	.....	16.3	16.1	16.2
12.9	13.5	12.3	.....	11.1	12.6	11.3	.....	[2] 21.9	[2] 22.8	[2] 22.3	.....	12.5	13.0	12.4	.....	11.7	12.1	11.4
7.6	8.6	8.3	5.4	6.7	7.7	7.6	5.5	7.1	7.9	7.6	5.4	6.8	7.6	7.4	5.1	6.5	7.6	7.3
75.6	75.0	75.2	53.8	49.1	48.9	49.5	55.0	54.7	56.6	57.2	62.1	72.1	71.3	71.5	43.3	51.9	48.5	48.2
32.6	35.7	36.0	29.3	31.4	33.0	33.1	33.8	37.7	37.9	38.0	26.1	30.0	30.8	30.7	27.2	32.7	32.9	32.8
17.4	24.4	24.9	.....	16.9	18.5	18.3	.....	18.2	19.5	19.7	.....	17.6	22.1	22.4	.....	19.4	19.7	19.7
30.5	25.9	26.0	.....	28.5	21.0	20.6	.....	28.1	22.2	21.3	.....	29.5	25.2	24.2	.....	27.5	21.6	21.0
26.5	26.1	25.7	.....	39.2	37.5	37.5	.....	36.1	31.9	32.5	.....	20.0	22.5	21.7	.....	41.3	40.7	38.2
50.4	68.3	61.4	.....	63.1	78.0	78.0	.....	54.2	62.9	64.5	.....	52.0	66.0	67.4	.....	63.2	76.2	78.3

[3] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.
					1913	1921					
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	41.1	38.4	37.9	25.6	37.0	35.7	35.9	33.2	33.7	33.4
Round steak	do	35.5	32.2	32.1	22.8	32.8	33.9	34.2	32.9	32.3	31.9
Rib roast	do	33.2	30.8	30.8	19.1	26.5	25.2	25.3	24.1	24.2	23.9
Chuck roast	do	20.8	19.9	19.9	16.7	20.7	19.6	20.0	19.6	19.7	20.1
Plate beef	do	13.3	13.5	13.4	11.4	11.1	10.4	10.5	13.0	12.6	12.6
Pork chops	do	34.4	31.3	32.6	22.0	36.8	32.7	33.3	36.0	32.7	34.1
Bacon	do	40.9	37.5	37.1	28.6	52.1	46.7	45.8	44.6	42.9	42.9
Ham	do	48.0	44.2	41.3	29.0	56.3	55.4	52.5	52.9	51.4	48.9
Lamb	do	38.3	37.8	38.5	17.5	31.1	38.6	38.5	34.4	34.4	34.7
Hens	do	38.5	34.8	36.7	16.9	32.2	29.4	28.3	33.7	31.5	30.8
Salmon, canned, red	do	31.7	30.3	29.6	.....	35.5	33.3	33.3	34.8	32.7	33.1
Milk, fresh	Quart	20.5	17.0	17.0	8.2	12.0	11.0	11.0	12.7	10.2	10.8
Milk, evaporated	15–16 oz. can	13.0	10.3	10.2	.....	14.2	10.5	10.6	14.4	10.9	11.0
Butter	Pound	53.2	45.9	47.0	36.6	46.2	39.0	42.7	46.3	39.4	43.5
Oleomargarine	do	28.5	27.0	28.6	.....	32.6	29.3	28.7	30.1	27.5	27.7
Nut margarine	do	28.7	26.2	26.2	.....	29.0	28.5	27.9	27.9	26.9	27.4
Cheese	do	29.4	28.7	28.9	23.3	31.6	30.7	30.9	32.8	31.5	31.6
Lard	do	18.4	17.1	16.8	17.8	19.9	19.4	19.5	18.2	17.0	17.0
Crisco	do	20.1	21.6	21.4	.....	22.2	24.6	24.5	22.3	23.4	23.4
Eggs, strictly fresh	Dozen	49.2	34.9	40.8	28.3	38.3	28.6	33.5	38.8	27.9	34.6
Bread	Pound	9.2	7.9	7.8	5.2	9.9	9.9	9.8	9.7	8.7	8.5
Flour	do	5.7	4.9	4.8	2.8	4.8	4.2	4.1	5.6	5.2	4.9
Corn meal	do	3.4	3.5	3.5	2.5	4.2	3.3	3.3	4.2	3.6	3.7
Rolled oats	do	9.6	8.0	8.3	.....	10.6	10.8	10.8	11.3	8.7	9.0
Corn flakes	8-oz. pkg	11.1	9.3	9.2	.....	14.1	10.4	10.4	13.2	10.1	10.1
Cream of Wheat	28-oz. pkg	29.2	25.1	25.6	.....	30.8	25.4	25.8	30.6	27.5	27.7
Macaroni	Pound	19.7	19.8	20.1	.....	20.9	20.5	20.5	20.2	20.5	20.2
Rice	do	9.9	10.0	9.7	8.5	8.5	9.4	9.6	8.7	10.7	10.6
Beans, navy	do	8.7	11.0	10.4	.....	8.0	11.8	12.0	8.0	13.1	11.9
Potatoes	do	4.0	2.8	2.4	1.7	3.3	2.0	1.7	4.1	2.3	2.1
Onions	do	5.4	7.8	5.7	.....	5.4	5.4	5.3	6.4	6.5	5.3
Cabbage	do	5.3	3.8	3.7	.....	5.2	2.0	2.7	5.8	3.8	3.5
Beans, baked	No. 2 can	10.8	11.0	11.2	.....	17.0	15.7	15.5	14.1	13.6	13.7
Corn, canned	do	15.4	15.4	14.4	.....	14.6	16.4	16.2	14.8	14.6	14.7
Peas, canned	do	19.0	19.5	18.7	.....	15.6	16.8	16.8	16.7	17.0	16.9
Tomatoes, canned	do	11.1	11.5	11.7	.....	12.6	14.5	15.0	12.8	14.8	14.6
Sugar, granulated	Pound	6.8	7.8	7.5	6.1	7.3	8.4	8.2	7.7	8.6	8.6
Tea	do	77.9	74.5	75.8	56.0	72.9	76.7	66.7	63.5	62.1	62.1
Coffee	do	39.1	35.9	36.4	30.0	38.5	39.6	39.2	32.7	35.3	35.3
Prunes	do	17.6	19.8	19.0	.....	20.3	21.7	23.0	24.0	22.9	23.1
Raisins	do	28.7	24.5	23.7	.....	31.6	26.7	25.4	32.4	25.4	25.4
Bananas	Dozen	35.0	33.5	33.5	.....	[1] 10.1	[1] 9.6	[1] 9.6	[1] 11.0	[1] 9.5	[1] 9.9
Oranges	do	54.2	68.9	63.8	.....	49.1	59.2	64.2	50.4	56.7	61.0

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

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Philadelphia Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.			
Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
1913	1921			1913	1921						1913	1921			1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
[1] 31.7	[1] 47.5	[1] 49.0	[1] 48.7	27.7	43.3	42.8	42.1	[1] 58.8	[1] 57.8	[1] 58.1	23.9	29.3	29.1	28.4	[1] 40.2	[1] 65.6	[1] 65.0	[1] 65.8
27.1	39.6	40.2	39.3	24.7	35.8	35.6	35.2	46.1	45.2	45.9	21.4	26.1	26.7	25.9	31.6	49.6	47.4	47.7
22.3	33.7	32.6	32.5	22.2	31.8	30.8	31.0	28.7	29.3	29.5	19.5	24.7	24.6	24.4	24.2	36.4	36.0	36.4
18.2	20.5	20.3	20.4	17.5	21.5	21.3	21.6	19.1	19.3	18.5	16.9	16.9	17.2	16.6	18.8	27.9	26.1	25.9
12.5	10.8	10.0	9.9	12.8	12.0	11.2	10.9	14.8	13.8	13.8	13.9	12.5	12.6	12.6	.....	18.7	16.6	17.1
23.2	39.0	37.4	37.8	25.2	38.3	34.3	37.9	39.5	35.9	36.8	24.4	35.9	35.3	35.4	22.0	44.4	40.4	43.8
28.2	38.7	38.7	38.3	30.4	46.2	42.5	42.4	40.1	36.9	36.9	31.5	48.2	45.9	44.4	22.2	37.3	35.1	36.4
32.6	57.8	55.9	53.0	31.6	55.9	54.9	53.8	54.7	57.0	55.5	32.5	51.4	50.8	48.1	34.3	59.6	56.6	54.5
19.7	35.8	38.3	37.9	20.0	36.0	36.7	38.3	33.6	39.6	39.1	16.4	27.8	31.4	30.5	18.0	35.4	41.1	42.0
22.9	43.7	39.6	39.8	25.8	43.7	40.3	42.1	47.1	42.6	41.6	21.3	34.1	32.7	31.6	25.0	46.6	39.8	41.4
.....	29.0	27.8	27 6	.....	34.3	29.4	28.9	33.2	28.7	28.9	.....	40.7	41.4	41.4	.....	37.3	31.9	31.8
8.0	11.0	11.0	11.0	8.6	14.0	12.3	12.5	15.0	13.5	13.5	9.7	12.9	12.8	12.6	9.0	15.6	14.0	14.0
.....	13.5	10.8	10.7	.....	12.6	10.5	10.0	14.3	11.8	12.1	.....	12.7	11.4	11.5	.....	14.0	11.5	11.7
42.5	57.4	49.0	51.1	39.3	52.7	44.4	47.7	55.4	48.9	49.6	42.0	53.2	51.6	51.5	38.2	51.9	45.0	46.4
.....	29.5	27.3	27.3	.....	28.5	26.4	26.7	32.9	30.0	30.2	.....	30.0	29.4	29.3	.....	30.4	29.4	29.4
.....	27.8	26.0	26.6	.....	27.0	25.9	25.8	29.2	28.0	28.3	.....	30.5	28.3	28.2	.....	27.8	27.1	27.4
25.0	35.4	34.4	34.4	24.5	34.2	31.7	32.1	34.7	33.2	33.2	20.8	35.0	34.9	35.5	22.0	32.3	31.1	31.8
15.9	16.5	16.4	16.4	15.7	16.6	16.2	15.7	17.4	17.7	17.6	18.3	20.1	20.1	20.0	15.7	17.3	16.8	16.6
.....	19.8	22.0	22.6	.....	19.9	22.1	22.2	21.6	23.3	23.8	.....	24.0	25.8	25.6	.....	21.7	22.9	23.2
39.7	52.6	36.2	45.0	34.8	48.1	36.5	44.1	66.9	48.8	56.1	40.0	43.4	31.9	39.0	46.0	69.6	53.5	62.5
4.8	8.7	8.7	8.7	5.5	9.4	8.2	8.2	10.1	9.4	9.4	5.6	9.5	9.4	9.4	5.9	10.6	8.9	8.9
3.2	5.9	5.3	5.0	3.2	5.6	5.1	4.9	5.7	5.2	5.0	2.9	4.8	4.6	4.4	3.5	6.3	5.6	5.5
2.7	4.5	3.6	3.6	2.8	4.3	4.6	4.5	4.6	4.0	4.0	3.4	4.7	3.4	3.4	3.1	4.6	3.9	3.9
.....	8.9	8.0	7.9	.....	10.2	9.0	8.8	7.8	6.8	6.8	.....	9.5	9.5	9.4	.....	10.5	9.4	9.5
.....	10.8	9.0	9.0	.....	11.4	9.6	9.5	12.1	9.8	9.8	.....	13.2	11.2	11.1	.....	11.8	10.0	10.0
.....	28.3	25.0	25.0	.....	29.3	25.4	25.2	29.2	25.9	25.9	.....	31.7	28.6	28.1	.....	29.8	26.5	26.6
.....	21.4	20.7	20.5	.....	21.7	21.0	20.0	23.7	23.5	23.0	.....	17.6	17.4	17.0	.....	22.7	22.3	22.3
9.8	9.6	10.0	10.1	9.2	9.8	9.9	9.6	10.3	10.6	10.6	8.6	9.8	10.3	10.1	9.3	9.8	9.7	9.6
.....	8.3	10.2	9.6	.....	7.5	11.8	10.8	8.0	11.0	11.0	.....	7.7	9.9	9.9	.....	8.1	11.0	10.6
2.2	4.0	2.2	2.3	2.1	4.0	2.3	2.9	3.2	2.4	2.1	1.3	2.6	2.9	2.0	1.8	3.8	2.2	2.1
.....	5.8	4.9	4.6	.....	6.0	6.6	4.9	5.7	6.4	5.5	.....	4.9	3.6	3.6	.....	5.8	5.5	4.9
.....	5.1	2.6	2.8	.....	5.2	3.8	3.8	3.7	4.6	4.0	.....	5.3	3.8	3.1	.....	4.9	3.0	3.3
.....	12.3	12.1	12.2	.....	13.8	13.9	13.0	16.9	15.4	15.4	.....	17.8	17.2	17.2	.....	13.3	13.2	13.1
.....	15.6	14.9	14.8	.....	15.5	14.4	13.9	17.2	16.1	16.1	.....	18.8	17.0	17.3	.....	18.6	17.3	17.6
.....	16.0	16.1	16.1	.....	16.1	15.4	15.5	19.5	20.8	20.3	.....	18.1	17.8	17.7	.....	19.5	20.1	20.1
.....	11.4	13.1	12.6	.....	11.9	13.1	12.8	[2] 20.6	[2] 22.8	[2] 22.8	.....	[3] 14.4	[3] 15.5	[3] 15.4	.....	14.1	14.2	13.9
5.0	6.7	7.4	7.2	5.8	7.3	8.2	7.9	7.2	8.3	8.1	6.3	7.6	8.1	8.1	5.3	7.1	7.9	7.9
54.0	62.4	60.7	60.4	58.0	76.2	74.3	74.6	56.9	56.5	56.5	55.0	64.1	63.1	63.8	48.3	61.1	58.8	58.8
24.5	30.1	31.1	31.4	30.0	36.4	35.7	35.6	38.4	39.8	39.8	35.0	38.0	37.2	37.2	30.0	39.4	40.1	40.2
.....	17.4	17.3	18.2	.....	21.5	20.3	20.8	18.5	19.6	20.7	.....	9.8	19.8	19.0	.....	18.8	20.1	20.4
.....	26.0	21.9	21.1	.....	27.4	22.8	22.0	27.5	21.6	21.1	.....	28.1	23.4	21.3	.....	28.9	22.2	21.2
.....	35.8	29.7	29.4	.....	42.8	39.1	40.0	[4] 10.2	[4] 10.0	[4] 9.8	.....	[4] 13.3	[4] 13.4	[4] 13.6	.....	36.3	33.3	33.7
.....	51.8	60.3	55.8	.....	53.2	61.8	63.5	59.4	69.6	74.1	.....	58.0	63.0	61.7	.....	62.5	80.1	76.2

[2] No. 3 can. [3] No. 2½ can. [4] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Richmond, Va.				Rochester, N. Y.			St. Louis, Mo.			
		Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
		1913	1921						1913	1921		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	22.6	41.4	38.7	38.3	38.1	39.4	39.3	26.0	36.1	34.8	34.1
Round steak	do	20.0	36.1	33.3	33.8	33.2	34.0	34.1	24.3	34.2	32.0	31.7
Rib roast	do	18.9	30.9	29.5	29.0	27.3	28.1	27.7	19.5	29.4	26.4	27.0
Chuck roast	do	15.5	23.8	20.9	21.4	23.0	22.4	22.7	15.6	18.8	18.4	18.5
Plate beef	do	12.5	17.8	15.6	14.8	11.8	11.4	11.7	12.4	12.5	11.8	12.1
Pork chops	do	22.0	36.8	34.3	35.4	38.9	38.1	39.1	21.0	34.9	31.2	32.4
Bacon	do	27.0	38.3	37.8	36.8	35.9	35.0	34.6	27.5	39.8	39.1	39.3
Ham	do	26.0	47.8	45.8	42.4	52.8	49.6	48.4	27.3	50.4	46.9	45.1
Lamb	do	19.3	40.6	38.9	40.5	34.2	36.3	36.3	18.3	29.4	32.1	31.1
Hens	do	19.8	36.7	33.1	33.1	42.7	38.9	38.4	17.1	32.0	30.2	30.1
Salmon, canned, red	do	.....	32.5	33.1	32.8	32.6	28.3	28.4	.....	34.2	32.1	32.0
Milk, fresh	Quart	10.0	14.0	13.0	13.0	13.0	13.0	13.0	9.0	13.0	12.0	12.0
Milk, evaporated	15–16 oz. can	.....	14.8	12.4	12.2	13.8	10.9	11.1	.....	12.6	9.9	9.9
Butter	Pound	39.6	56.4	50.4	50.8	51.1	43.4	45.9	36.8	50.8	43.8	47.2
Oleomargarine	do	.....	31.7	30.4	28.7	31.1	28.0	27.8	.....	28.5	26.0	26.5
Nut margarine	do	.....	28.4	28.0	27.8	28.4	25.8	25.9	.....	26.0	24.8	24.8
Cheese	do	21.8	32.2	31.9	31.5	32.9	32.5	33.1	19.3	30.3	28.7	29.5
Lard	do	15.4	18.6	17.9	17.7	17.7	17.1	17.0	14.3	14.2	13.9	13.8
Crisco	do	.....	22.3	23.1	23.4	19.2	22.5	22.5	.....	20.4	21.5	21.7
Eggs, strictly fresh	Dozen	33.3	48.4	34.9	38.5	55.2	37.4	45.9	27.3	40.6	29.0	35.5
Bread	Pound	5.4	10.7	9.1	9.1	8.3	8.0	8.0	5.5	10.1	9.0	9.0
Flour	do	3.3	6.0	5.3	5.1	5.8	5.1	5.1	2.9	4.8	4.6	4.1
Corn meal	do	2.2	4.2	4.1	4.1	5.2	4.8	4.7	2.5	3.4	2.9	2.8
Rolled oats	do	.....	11.1	9.8	9.6	7.9	7.2	7.4	.....	9.4	8.1	8.2
Corn flakes	8-oz. pkg	.....	12.9	10.0	9.8	11.5	9.6	9.8	.....	10.6	9.2	8.9
Cream of Wheat	28-oz. pkg	.....	31.3	26.7	26.5	28.9	24.8	24.5	.....	29.8	24.4	24.2
Macaroni	Pound	.....	22.1	21.3	20.3	20.7	18.9	18.9	.....	20.5	20.6	20.4
Rice	do	10.0	11.0	11.7	11.6	9.3	9.6	9.9	8.4	8.5	9.2	9.0
Beans, navy	do	.....	8.7	10.5	10.8	8.1	11.7	11.5	.....	7.2	11.4	10.4
Potatoes	do	1.9	4.9	3.4	3.1	3.2	2.2	1.7	2.0	4.3	2.8	2.6
Onions	do	.....	6.3	6.0	6.1	5.2	5.9	4.8	.....	5.5	5.5	5.0
Cabbage	do	.....	6.1	4.0	3.8	4.7	3.6	3.2	.....	5.2	3.8	4.0
Beans, baked	No. 2 can	.....	12.1	12.3	12.3	11.8	11.3	11.7	.....	11.9	11.4	11.4
Corn, canned	do	.....	15.5	15.4	15.0	16.0	15.7	15.6	.....	15.2	14.5	14.8
Peas, canned	do	.....	20.1	20.1	19.3	19.0	18.8	18.6	.....	16.0	16.6	16.3
Tomatoes, canned	do	.....	12.9	13.1	12.7	12.6	13.0	12.2	.....	12.1	13.8	13.0
Sugar, granulated	Pound	5.4	7.4	8.3	8.0	6.9	7.8	7.7	5.5	7.0	8.1	7.8
Tea	do	56.0	83.9	81.7	79.9	59.1	60.3	60.3	55.0	69.1	66.8	66.9
Coffee	do	27.4	36.6	35.9	35.3	33.7	34.1	33.6	24.4	32.8	34.4	35.0
Prunes	do	.....	22.3	23.2	22.3	20.7	19.8	20.3	.....	20.0	22.6	22.9
Raisins	do	.....	28.1	22.5	20.8	28.1	21.6	21.5	.....	30.5	25.6	24.6
Bananas	Dozen	.....	38.8	35.8	35.4	42.5	39.7	38.0	.....	32.8	28.4	28.9
Oranges	do	.....	53.6	68.8	75.0	54.3	67.9	69.9	.....	47.8	52.9	51.6

[1] No. 2½ can.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

St. Paul, Minn.				Salt Lake City, Utah.				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.			
Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
1913	1921			1913	1921			1913	1921						1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
27.2	35.5	35.2	34.6	22.6	28.5	30.0	29.1	21.3	29.0	30.7	30.0	32.9	30.0	29.6	26.0	49.2	47.6	47.8
23.6	29.7	29.4	28.5	20.0	25.1	26.7	25.9	19.7	26.3	27.3	27.2	28.1	26.0	25.4	22.5	39.7	38.5	38.0
20.4	27.4	27.8	27.4	19.4	22.4	23.1	22.3	21.1	28.2	27.9	27.9	25.7	24.4	22.9	23.0	35.7	35.6	35.1
16.8	21.4	20.5	20.4	15.0	16.8	17.6	17.3	15.0	17.5	17.8	17.5	18.3	16.0	15.6	17.6	26.4	25.7	25.6
10.6	11.7	10.0	10.1	12.5	11.7	11.6	11.5	13.8	13.3	13.3	13.1	15.0	13.8	13.5	11.9	12.1	11.0	10.7
21.4	35.2	33.0	33.5	23.8	36.3	33.5	33.9	23.7	40.9	39.3	38.9	32.5	30.0	30.8	22.5	41.2	38.8	39.0
26.3	44.0	40.6	39.8	30.0	44.3	39.3	39.0	34.4	56.6	53.9	54.8	39.9	36.4	35.7	27.5	44.9	44.7	44.1
28.8	50.0	48.6	46.7	30.0	49.3	50.7	48.9	33.0	57.5	57.0	55.9	43.0	42.5	39.5	31.7	59.0	59.2	56.0
16.7	28.7	33.6	32.2	17.5	27.2	33.2	32.4	16.5	30.1	34.4	34.3	37.5	37.0	37.0	19.0	41.4	44.6	42.7
19.6	31.1	28.1	27.8	23.3	36.0	33.2	33.7	24.2	45.9	38.0	37.3	36.9	32.3	33.7	22.7	46.9	44.2	43.2
.....	39.7	35.2	35.6	.....	35.6	33.3	33.3	.....	31.5	28.6	27.8	40.7	34.8	33.1	.....	40.7	36.7	36.1
7.8	11.0	10.0	11.0	8.7	12.5	9.0	9.0	10.0	14.0	13.0	13.0	20.0	18.0	17.3	8.8	12.8	12.0	13.0
.....	13.9	11.1	11.1	.....	12.4	10.5	10.3	.....	12.4	10.1	10.1	12.7	10.1	10.3	.....	13.6	11.3	11.2
35.0	43.1	35.3	40.4	39.0	49.1	44.5	46.7	42.9	54.9	50.6	55.6	50.9	43.9	46.7	36.4	50.6	43.5	44.7
.....	29.0	27.8	28.3	.....	30.0	.....	.....	.....	28.8	27.0	27.0	34.5	30.5	31.0	.....	29.4	26.2	26.2
.....	26.6	26.9	26.0	.....	29.4	28.4	27.6	.....	29.3	27.6	28.0	30.7	27.6	28.8	.....	28.8	21.0	23.0
21.0	31.1	31.1	31.5	24.2	27.8	27.7	28.1	19.5	33.1	34.8	35.2	30.5	29.1	30.2	18.3	31.1	30.3	30.4
15.4	18.2	17.5	17.3	19.8	19.4	18.9	19.2	18.7	19.4	19.1	19.2	21.3	18.2	17.4	16.5	19.1	17.5	17.7
.....	23.8	24.5	24.6	.....	25.1	26.1	26.1	.....	22.4	25.0	25.1	19.3	20.6	21.1	.....	21.5	23.1	23.1
28.1	40.4	29.5	36.2	36.0	45.6	32.7	36.7	46.4	54.4	33.6	50.3	51.3	35.8	41.0	39.3	58.7	37.4	42.5
6.0	8.6	9.3	9.3	5.9	9.8	9.5	9.5	5.9	9.6	8.5	9.1	10.5	8.3	8.7	5.6	10.4	9.1	8.7
3.0	5.5	5.3	4.9	2.5	3.3	3.2	3.2	3.4	5.6	5.2	5.2	5.9	5.6	5.3	3.5	6.7	5.7	5.5
2.3	4.3	3.5	3.4	3.4	4.0	3.6	3.7	3.5	4.7	4.5	4.4	2.8	2.7	2.6	.....	7.3	6.4	6.2
.....	9.6	9.7	9.3	.....	10.3	9.5	9.5	.....	10.4	9.6	9.7	10.9	8.4	8.4	.....	11.1	9.5	9.5
.....	13.6	10.0	10.0	.....	13.7	12.3	11.8	.....	12.5	10.9	10.7	11.2	8.9	8.8	.....	12.8	9.9	10.2
.....	29.9	26.2	26.2	.....	32.1	26.4	25.9	.....	28.8	25.0	25.0	29.6	25.5	25.2	.....	29.5	26.9	26.8
.....	19.1	18.5	18.5	.....	22.7	20.7	20.9	.....	14.3	14.7	14.6	19.8	18.3	18.5	.....	23.6	22.8	22.7
10.0	8.6	9.5	9.5	8.2	8.0	8.9	9.1	8.5	8.7	9.4	9.3	8.1	8.3	8.1	8.4	9.6	9.7	9.7
.....	8.8	11.2	11.0	.....	8.4	9.9	10.4	.....	6.7	9.4	8.9	9.6	10.7	10.9	.....	9.7	11.4	11.6
1.3	3.1	1.4	1.4	1.4	2.5	1.4	1.2	1.7	3.3	2.7	2.4	4.0	2.9	2.1	1.8	3.8	2.2	2.1
.....	5.0	5.9	4.6	.....	4.5	5.5	4.2	.....	3.5	3.1	2.8	6.4	7.6	6.6	.....	5.6	6.2	5.5
.....	3.8	1.6	1.6	.....	3.7	5.3	4.0	.....	.....	.....	.....	5.5	4.5	4.7	.....	5.1	3.0	2.9
.....	16.9	14.6	14.7	.....	17.8	16.8	17.0	.....	16.7	14.9	15.0	12.8	12.9	12.7	.....	13.4	12.9	13.1
.....	16.7	14.9	14.9	.....	15.3	14.9	14.9	.....	17.3	16.4	16.6	15.3	14.5	14.3	.....	17.4	16.7	16.4
.....	16.5	16.3	16.5	.....	15.2	16.1	16.0	.....	18.5	17.7	17.6	18.7	17.0	16.1	.....	17.7	17.2	17.6
.....	14.3	15.3	15.3	.....	13.4	14.4	14.4	.....	[1] 12.2	[1] 14.3	[1] 14.5	12.1	11.1	10.1	.....	12.8	14.0	13.5
5.7	7.7	8.4	8.3	6.2	8.1	9.0	8.9	5.6	7.4	7.9	7.7	7.2	7.7	7.4	5.8	7.5	8.1	8.0
45.0	67.7	64.2	64.2	65.7	83.2	78.8	78.4	50.0	57.1	57.1	57.1	69.1	67.4	66.0	52.5	62.8	59.0	60.3
30.0	38.7	40.0	40.0	35.8	45.3	44.1	44.1	32.0	34.3	35.6	36.1	32.4	31.9	31.9	31.3	38.8	37.3	37.5
.....	20.1	22.8	22.8	.....	16.6	20.1	20.1	.....	16.3	20.0	19.6	19.4	19.8	19.8	.....	17.2	18.8	18.6
.....	29.9	25.8	24.1	.....	25.5	23.4	21.3	.....	27.1	21.5	20.1	29.5	21.2	20.8	.....	29.8	22.5	22.2
.....	[2] 11.8	[2] 10.5	[2] 10.6	.....	[2] 16.7	[2] 15.8	[2] 15.0	.....	36.4	35.6	32.5	38.0	29.5	29.5	.....	35.8	33.4	32.3
.....	53.7	69.2	70.0	.....	51.0	52.6	60.8	.....	48.8	67.2	63.1	69.4	92.2	79.2	.....	54.4	71.2	67.4

[2] Per pound.

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

Article	Unit	Seattle, Wash.				Springfield, Ill.			Washington, D. C.			
		Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15, 1921.	Aug. 15, 1922.	Sept. 15, 1922.	Sept. 15—		Aug. 15, 1922.	Sept. 15, 1922.
		1913	1921						1913	1921		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.0	31.2	31.5	30.2	35.2	33.5	34.2	27.4	46.7	43.9	44.3
Round steak	do	20.7	27.4	27.9	26.8	34.1	33.1	33.5	24.1	39.7	37.9	37.8
Rib roast	do	19.3	24.9	24.5	24.0	23.5	22.5	22.5	21.3	35.1	34.7	33.9
Chuck roast	do	16.0	16.1	16.4	16.4	19.0	19.7	19.9	17.3	23.7	23.0	23.4
Plate beef	do	13.0	12.5	12.5	12.6	13.2	12.6	12.6	12.4	13.0	13.0	13.1
Pork chops	do	24.3	37.1	37.8	37.1	35.8	31.1	32.8	24.1	42.7	40.0	39.9
Bacon	do	32.5	53.3	50.6	50.2	40.2	39.0	39.3	28.5	42.0	38.7	39.1
Ham	do	30.0	55.3	54.2	52.3	52.3	50.4	48.6	30.0	59.2	59.6	56.1
Lamb	do	19.3	27.3	31.7	31.6	31.3	36.9	37.5	19.4	38.3	39.9	40.3
Hens	do	23.3	33.0	31.0	30.3	33.3	33.1	31.7	22.5	41.8	38.6	39.3
Salmon, canned, red	do	.....	33.4	30.9	30.7	39.2	32.9	33.1	.....	35.9	29.1	28.3
Milk, fresh	Quart	8.6	12.0	12.5	12.0	12.5	11.1	11.1	8.2	14.0	13.0	13.0
Milk, evaporated	15-16-oz. can	.....	12.3	10.3	10.4	14.7	11.5	11.6	.....	14.0	10.8	10.7
Butter	Pound	40.0	52.5	50.7	51.4	49.8	43.1	46.7	38.7	53.8	47.5	48.6
Oleomargarine	do	.....	30.0	27.5	28.8	30.3	28.0	28.1	.....	28.5	26.2	26.3
Nut margarine	do	.....	30.3	28.4	28.7	28.1	26.6	26.4	.....	28.7	26.2	26.4
Cheese	do	21.7	32.4	32.5	32.8	35.4	32.4	32.5	23.5	35.2	33.9	33.9
Lard	do	17.6	18.7	19.1	19.1	17.3	17.0	17.2	15.3	18.2	17.3	17.2
Crisco	do	.....	23.2	25.6	26.0	21.1	22.9	23.1	.....	21.1	22.2	22.7
Eggs, strictly fresh	Dozen	43.3	49.4	33.5	44.1	40.5	28.0	39.8	34.5	53.7	37.4	47.3
Bread	Pound	5.2	9.9	9.9	9.9	10.6	9.7	9.7	5.7	10.2	8.7	8.5
Flour	do	2.9	4.8	4.7	4.5	5.7	5.3	5.1	3.8	6.2	5.6	5.2
Corn meal	do	3.2	4.4	3.8	3.7	4.5	4.2	4.1	2.6	4.0	3.6	3.6
Rolled oats	do	.....	9.1	8.3	8.3	11.1	10.0	10.0	.....	11.1	9.5	9.5
Corn flakes	8-oz. pkg	.....	13.3	11.5	11.7	13.6	9.5	9.7	.....	11.5	9.4	9.3
Cream of Wheat	28-oz. pkg	.....	30.7	27.0	27.0	30.4	27.2	27.2	.....	29.0	25.3	25.1
Macaroni	Pound	.....	18.2	19.0	18.8	22.2	20.5	20.5	.....	23.0	21.6	21.1
Rice	do	7.7	9.6	11.1	10.9	9.7	10.6	10.2	9.4	9.9	10.3	10.5
Beans, navy	do	.....	7.6	10.3	10.3	7.8	13.0	12.0	.....	8.2	12.1	11.7
Potatoes	do	1.4	2.5	3.0	2.4	4.4	2.6	2.1	2.0	4.6	2.6	2.6
Onions	do	.....	4.9	4.2	3.9	6.7	8.3	5.4	.....	7.1	7.6	5.4
Cabbage	do	.....	5.0	4.2	3.9	6.6	4.8	4.1	.....	6.3	3.1	3.7
Beans, baked	No. 2 can	.....	17.6	15.8	15.9	14.8	14.1	14.1	.....	12.3	11.8	11.2
Corn, canned	do	.....	17.6	17.6	17.4	15.4	14.6	14.0	.....	14.9	14.0	13.5
Peas, canned	do	.....	18.3	18.9	19.1	16.2	17.5	17.4	.....	15.9	16.9	16.0
Tomatoes, canned	do	.....	[1] 14.4	[1] 15.5	[1] 15.7	12.9	15.5	15.5	.....	12.2	12.4	11.8
Sugar, granulated	Pound	6.6	8.1	8.4	8.3	7.9	9.1	8.7	5.3	7.1	7.8	7.5
Tea	do	50.0	63.8	65.6	65.2	75.7	70.4	71.1	57.5	74.6	72.4	72.5
Coffee	do	28.0	36.9	39.3	38.5	35.3	35.6	35.6	28.8	33.3	32.9	33.1
Prunes	do	.....	15.8	20.9	21.4	19.9	21.4	22.8	.....	19.6	21.6	22.0
Raisins	do	.....	28.2	24.0	22.7	34.1	25.7	25.9	.....	28.9	24.1	22.9
Bananas	Dozen	.....	[2] 15.1	[2] 14.1	[2] 14.0	[2] 9.4	[2] 8.8	[2] 8.8	.....	41.4	36.3	34.7
Oranges	do	.....	46.0	59.9	66.1	52.9	68.1	72.1	.....	56.1	72.0	78.2

[1] No. 2½ can. [2] 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[7] in September, 1922, compared with the average cost in the year 1913, in September, 1921, and in August, 1922. 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.[8]

[7] For list of articles, see note 2, p. 44.

[8] 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.

Effort has been made by the bureau each month to have perfect reporting cities. For the month of September, 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 39 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, Buffalo, Butte, Charleston, Chicago, Cincinnati, Columbus, Denver, Detroit, Fall River, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Manchester, Milwaukee, Minneapolis, Newark, New Haven, New York, Norfolk, Omaha, Peoria, Pittsburgh, Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Seattle, and Washington, D. C.

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

RETAIL PRICE REPORTS RECEIVED DURING SEPTEMBER.

Item.	United States.	Geographical division.				
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.
Percentage of reports received	99	99.5	100	99.5	96	99
Number of cities in each section from which every report was received	39	12	8	12	1	6

TABLE 6.—PERCENTAGE CHANGES IN THE RETAIL COST OF FOOD IN SEPTEMBER, 1922, COMPARED WITH THE COST IN AUGUST, 1922, SEPTEMBER, 1921, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City	Percentage increase September, 1922, compared with year 1913.	Percentage decrease September, 1922, compared with September, 1921.	Percentage increase September, 1922, compared with August, 1922.	City.	Percentage increase September, 1922, compared with year 1913.	Percentage decrease September, 1922, compared with September, 1921.	Percentage increase September, 1922, compared with August, 1922.
Atlanta	39	7	[1] 2	Milwaukee	40	10	1
Baltimore	44	6	1	Minneapolis	38	7	2
Birmingham	41	9	[1] 1	Mobile	.....	7	[1] 2
Boston	44	10	0.1	Newark	39	7	2
Bridgeport	.....	10	1	New Haven	41	8	2
Buffalo	46	6	2	New Orleans	39	8	[1] 1
Butte	.....	4	0.1	New York	45	8	2
Charleston	41	9	[1] 3	Norfolk	.....	12	[1] 0.4
Chicago	44	7	1	Omaha	37	8	0.4
Cincinnati	38	11	[1] 0.2	Peoria	.....	11	1
Cleveland	35	10	2	Philadelphia	39	8	2
Columbus	.....	13	0.3	Pittsburgh	39	9	3
Dallas	39	6	[1] 2	Portland, Me.	.....	8	0.4
Denver	26	10	[1] 0.4	Portland, Oreg.	31	4	[1] 1
Detroit	44	8	0.4	Providence	46	10	2
Fall River	41	10	0.2	Richmond	49	11	[1] 1
Houston	.....	7	0	Rochester	.....	8	1
Indianapolis	33	11	1	St. Louis	40	10	1
Jacksonville	34	9	[1] 1	St. Paul	.....	6	2
Kansas City	34	12	1	Salt Lake City	21	10	0.1
Little Rock	34	7	[1] 1	San Francisco	40	5	4
Los Angeles	37	4	4	Savannah	.....	13	[1] 1
Louisville	30	8	1	Scranton	43	12	0.4
Manchester	40	11	1	Seattle	37	2	[1] 0.2
Memphis	33	9	[1] 1	Springfield, Ill.	.....	10	0.4
				Washington, D.C.	48	10	1

[1] Decrease.

Retail Prices of Coal in the United States.[a]

THE following table shows the average retail prices of coal on September 15, 1921, and on July 15 and September 15, 1922, 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 anthractite, 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.

The prices shown for September, 1922, are those of the 15th, so far as it has been possible to secure them. Because of the unsettled conditions due to the shortage in the supply brought on by the strike, prices for some of the cities are those in effect during the last week in September. These cities have been noted in the table.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1921, AND ON JULY 15 AND SEPTEMBER 15, 1922.

City, and kind of coal.	Sept. 15, 1921.	1922	
		July 15.	Sept. 15.
United States:			
Pennsylvania anthracite—			
Stove	**$15.035**	**$14.867**	**$15.134**
Chestnut	**15.067**	**14.921**	**15.160**
Bituminous	**10.473**	**9.490**	**11.079**
Atlanta, Ga.:			
Bituminous	8.792	8.115	10.958
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	[1] 14.750	[1] 15.000	[2] 15.750
Chestnut	[1] 14.750	[1] 14.750	[2] 15.750
Bituminous	8.063	8.250	11.800
Birmingham, Ala.:			
Bituminous	8.618	6.215	7.554
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	15.000	15.000	15.000
Chestnut	15.000	15.000	15.000
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	14.400	14.000	14.000
Chestnut	14.300	14.000	14.000
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	13.120	12.813	12.813
Chestnut	13.120	12.813	12.813
Butte, Mont.:			
Bituminous	11.960	11.528	11.583
Charleston, S. C.:			
Pennsylvania anthracite—			
Stove	[1] 17.000	17.000	[3]
Chestnut	[1] 17.100	17.100	[3]
Bituminous	12.000	12.000	12.000

[1] Per ton of 2,240 pounds.
[2] Per ton of 2,240 pounds. Average price in effect during the last week in September.
[3] No quotations.

[a] 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.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1921, AND ON JULY 15 AND SEPTEMBER 15, 1922—Continued.

City, and kind of coal.	Sept. 15, 1921.	1922	
		July 15.	Sept. 15.
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	$15.490	$15.763	[4] $16.025
Chestnut	15.490	15.630	[4] 15.690
Bituminous	8.862	8.917	10.833
Cincinnati, Ohio:			
Pennsylvania anthracite—			
Stove	15.500	16.000	[3]
Chestnut	15.750	16.000	[3]
Bituminous	6.917	7.154	9.306
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	14.288	14.375	15.500
Chestnut	14.263	14.438	15.000
Bituminous	8.850	8.625	10.350
Columbus, Ohio:			
Bituminous	7.705	7.191	9.763
Dallas, Tex.:			
Arkansas anthracite—			
Egg	18.000	16.000	17.500
Bituminous	15.154	14.423	15.318
Denver, Colo.:			
Colorado anthracite—			
Stove, 3 and 5 mixed	16.083	15.500	16.583
Furnace, 1 and 2 mixed	16.083	15.500	16.583
Bituminous	10.950	10.038	11.106
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	14.563	14.563	[4] 15.563
Chestnut	14.563	14.563	[4] 15.563
Bituminous	9.594	8.969	11.844
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	15.250	15.250	15.250
Chestnut	15.000	15.000	15.000
Bituminous	11.000	9.000	10.667
Houston, Tex.:			
Bituminous	12.417	10.667	12.167
Indianapolis, Ind.:			
Pennsylvania anthracite—			
Stove	15.375	15.625	15.625
Chestnut	15.583	15.667	15.667
Bituminous	8.488	7.432	9.426
Jacksonville, Fla.:			
Pennsylvania anthracite—			
Stove	16.500	17.500	18.500
Chestnut	16.500	17.500	18.500
Bituminous	12.500	13.000	15.000
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	17.143	15.286	16.857
Stove, or No. 4	17.688	16.125	17.813
Bituminous	9.633	8.984	9.817
Little Rock, Ark.:			
Arkansas anthracite—			
Egg	14.500	15.000	15.000
Bituminous	13.286	11.688	12.333
Los Angeles, Calif.:			
Bituminous	19.000	14.000	16.333
Louisville, Ky.:			
Bituminous	8.079	7.389	9.681
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	16.500	16.000	16.000
Chestnut	16.500	16.000	16.000
Bituminous	11.333	10.500	14.000
Memphis, Tenn.:			
Pennsylvania anthracite—			
Stove	18.000	18.000	[3]
Chestnut	18.000	18.000	[3]
Bituminous	8.393	7.786	9.482
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	16.310	16.010	16.020
Chestnut	16.310	15.950	15.950
Bituminous	10.593	9.750	12.204

[3] No quotations.

[4] Average price in effect during the last week in September.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1921, AND ON JULY 15 AND SEPTEMBER 15, 1922—Continued.

City, and kind of coal.	Sept. 15, 1921.	1922	
		July 15.	Sept. 15.
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	$17.950	$17.510	$17.510
Chestnut	17.950	17.500	17.470
Bituminous	12.430	11.938	13.673
Mobile, Ala.:			
Bituminous	10.944	8.875	10.188
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	12.900	12.750	12.750
Chestnut	12.900	12.750	12.750
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	14.000	14.000	14.000
Chestnut	14.000	14.000	14.000
New Orleans, La.:			
Pennsylvania anthracite—			
Stove	17.500	18.000	19.000
Chestnut	17.500	18.333	19.000
Bituminous	10.750	8.393	10.125
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	13.342	13.135	14.792
Chestnut	13.342	13.135	14.792
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	14.500	14.000	14.000
Chestnut	14.500	14.000	14.000
Bituminous	11.643	9.952	11.619
Omaha, Nebr.:			
Pennsylvania anthracite—			
Stove	22.000	22.000	22.000
Chestnut	22.000	22.000	22.000
Bituminous	12.313	11.905	12.512
Peoria, Ill.:			
Pennsylvania anthracite—			
Stove	15.500	16.500	[3]
Chestnut	15.500	16.500	[3]
Bituminous	6.375	6.696	8.225
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 14.219	[1] 14.094	[1] 14.156
Chestnut	[1] 14.219	[1] 14.094	[1] 14.156
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 15.750	[1] 15.750	[1] 17.000
Chestnut	[1] 15.817	[1] 15.583	[1] 17.000
Bituminous	6.857	6.656	8.417
Portland, Me.:			
Pennsylvania anthracite—			
Stove	15.120	15.843	[4] 15.843
Chestnut	15.120	15.843	[4] 15.843
Portland, Oreg.:			
Bituminous	12.493	12.717	14.157
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[5] 15.000	[5] 15.000	[5] 15.000
Chestnut	[5] 15.000	[5] 15.000	[5] 15.500
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	14.250	14.250	16.000
Chestnut	14.250	14.250	16.000
Bituminous	10.846	8.692	11.300
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	13.550	13.450	13.450
Chestnut	13.550	13.450	13.450

[1] Per ton of 2,240 pounds.
[3] No quotations.
[4] Average price in effect during the last week in September.
[5] Fifty cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON SEPTEMBER 15, 1921, AND ON JULY 15 AND SEPTEMBER 15, 1922—Concluded.

City, and kind of coal.	Sept. 15, 1921.	1922	
		July 15.	Sept. 15.
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	$16.063	$16.125	$16.188
Chestnut	16.250	16.250	16.313
Bituminous	6.888	6.934	7.947
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	17.950	17.508	17.508
Chestnut	17.950	17.508	17.483
Bituminous	13.014	12.416	13.852
Salt Lake City, Utah:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	19.125	19.125	20.000
Stove, 3 and 5 mixed	20.000	20.000	20.000
Bituminous	9.445	8.706	9.638
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	26.875	24.250	26.750
Colorado anthracite—			
Egg	26.250	23.750	24.250
Bituminous	19.273	16.500	17.900
Savannah, Ga.:			
Pennsylvania anthracite—			
Stove	[6] 17.100	[6] 16.100	[6] 18.100
Chestnut	[6] 17.100	[6] 16.100	[6] 18.100
Bituminous	[6] 12.433	10.100	12.183
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	9.650	9.700	[4] 9.783
Chestnut	9.650	10.183	[4] 10.267
Seattle, Wash.:			
Bituminous	[7] 11.513	[7] 9.943	[7] 10.396
Springfield, Ill.:			
Bituminous, Ill.:			
Bituminous	4.450	4.625	6.000
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[1] 15.007	[1] 14.721	[2] 15.507
Chestnut	[1] 14.621	[1] 14.636	[2] 15.457
Bituminous	[1] 9.917	[1] 9.063	[1] 10.025

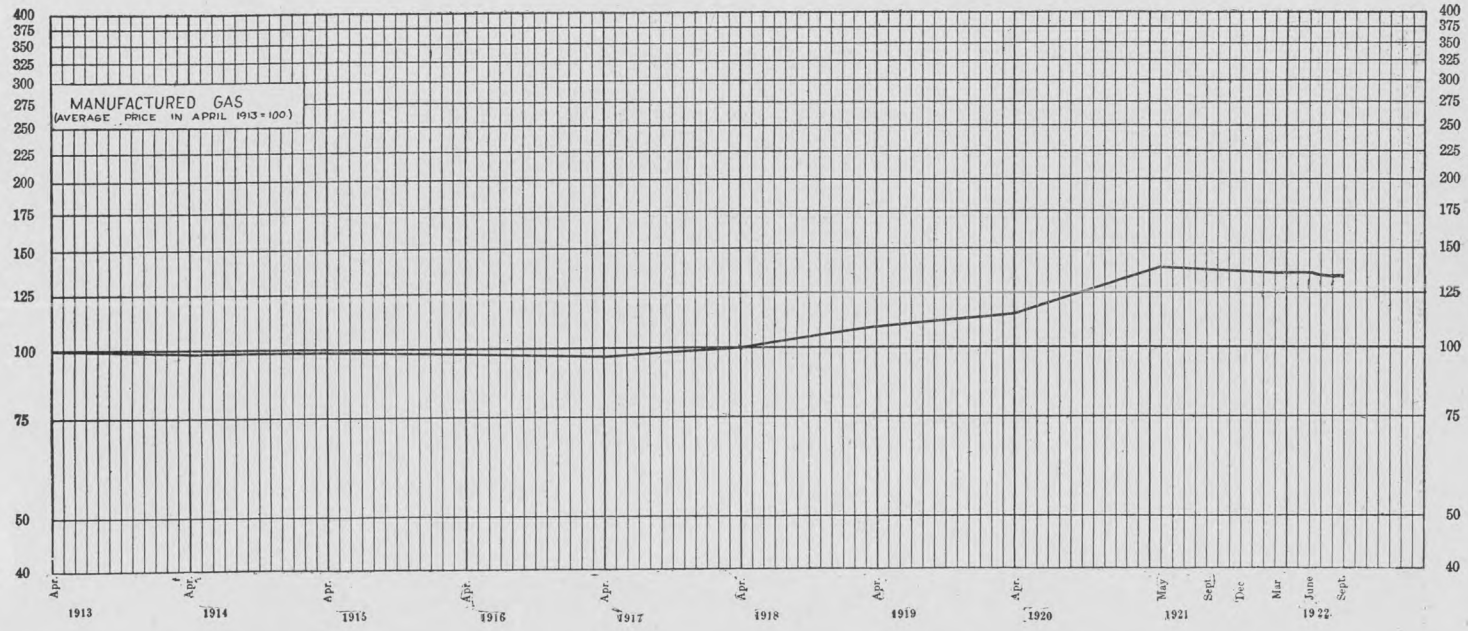
[1] Per ton of 2,240 pounds.
[2] Per ton of 2,240 pounds. Average price in effect during the last week in September.
[4] Average price in effect during the last week in September.
[6] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. The additional charge has been included in the above prices.
[7] Prices in Zone A. The cartage charges in Seattle during these months have ranged from $1.75 to $3.05 according to distance.

Retail Prices of Gas in the United States.[1]

THE following table shows for 51 cities the net price for the first 1,000 cubic feet of gas used for household purposes. Prices are, in most cases, for manufactured gas, but prices for natural gas have also been quoted for those cities where it is in general use. For Los Angeles prices are given for natural and manufactured gas, mixed. The prices shown do not include any extra charge for service.

[1] Retail prices of gas are published at quarterly intervals in the MONTHLY LABOR REVIEW.

TREND IN RETAIL PRICE OF GAS, FOR THE UNITED STATES, APRIL, 1913, TO SEPTEMBER, 1922.



[1000]

NET PRICE FOR THE FIRST 1,000 CUBIC FEET OF GAS, FOR HOUSEHOLD USE, ON APRIL 15 OF EACH YEAR, 1913 TO 1920, AND ON MAY 15, SEPTEMBER 15, AND DECEMBER 15, 1921, AND MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922, BY CITIES.

City.	Apr. 15, 1913.	Apr. 15, 1914.	Apr. 15, 1915.	Apr. 15, 1916.	Apr. 15, 1917.	Apr. 15, 1918.	Apr. 15, 1919.	Apr. 15, 1920.	May 15, 1921.	Sept. 15, 1921.	Dec. 15, 1921.	Mar. 15, 1922.	June 15, 1922.	Sept. 15, 1922.
Atlanta, Ga.	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00	$1.15	$1.15	$1.90	$1.65	$1.65	$1.65	$1.65	$1.65
Baltimore, Md.	.90	.80	.80	.75	.75	.75	.75	.75	.75	.92	.92	.92	.92	.92
Birmingham, Ala.	1.00	.95	.95	.95	.95	.95	.95	.95	.88	.88	.88	.88	.88	.85
Boston, Mass.	.82	.82	.80	.80	.80	.85	1.02	1.07	1.42	1.35	1.34	1.34	1.32	1.30
Bridgeport, Conn.	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.10	[1] 1.30	1.60	1.60	1.60	1.50	1.50
Buffalo, N. Y.	1.00	1.00	1.00	1.00	1.00	1.00	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Butte, Mont.	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	2.10	2.10	2.10	2.10	2.10	2.10
Charleston, S. C.	1.10	1.10	1.10	1.10	1.00	1.10	1.10	1.25	1.55	1.55	1.55	1.55	1.55	1.55
Chicago, Ill.	.80	.80	.80	.80	.80	.75½	.94	.90	1.29	1.29	1.29	1.20	1.20	1.20
Cleveland, Ohio.	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80
Denver, Colo.	.85	.80	.80	.80	.80	.85	.95	.95	.95	.95	.95	.95	.95	.95
Detroit, Mich.	.75	.75	.75	.75	.75	.75	.79	.79	.85	.85	.85	.79	.79	.79
Fall River, Mass.	.80	.80	.80	.80	.80	.95	.95	1.05	1.25	1.15	1.15	1.15	1.15	1.15
Houston, Tex.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Indianapolis, Ind.	.60	.55	.55	.55	.55	.55	.60	.60	.90	.90	.90	.90	[2] 1.20	[2] 1.20
Jacksonville, Fla.	1.20	1.20	1.15	1.15	1.15	1.25	1.25	1.50	1.75	1.75	1.75	1.75	1.65	1.65
Manchester, N. H.	1.10	1.10	1.00	1.00	1.00	1.00	1.10	1.10	[3] 1.50	[3] 1.50	[3] 1.50	[3] 1.40	[3] 1.40	[3] 1.40
Memphis, Tenn.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	[1] 1.10	1.35	1.35	1.35	1.35	1.20	1.20
Milwaukee, Wis.	.75	.75	.75	.75	.75	.75	.75	.75	.90	.90	.90	.90	.90	.98
Minneapolis, Minn.	.85	.80	.80	.77	.77	.77	.95	.95	1.28	1.11	1.11	1.02	1.02	.99
Mobile, Ala.	1.10	1.10	1.10	1.10	1.10	1.10	1.35	1.35	1.80	1.80	1.80	1.80	1.80	1.80
Newark, N. J.	1.00	.90	.90	.90	.90	.97	.97	1.15	1.40	1.40	1.40	1.40	1.25	1.25
New Haven, Conn.	.90	.90	.90	.90	.90	1.00	1.10	1.10	[1] 1.10	[1] 1.10	[1] 1.10	[1] 1.10	1.45	1.45
New Orleans, La.	1.10	1.00	1.00	1.00	1.00	1.00	1.30	1.30	1.30	1.45	1.45	1.45	1.45	1.30
New York, N. Y.	.84	.84	.83	.83	.83	.83	.85	.87	[4] 1.36	[4] 1.28	[4] 1.28	[4] 1.28	[4] 1.27	[5] 1.27
Norfolk, Va.	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.60	1.40	1.35	1.35	1.45	1.40	1.40
Omaha, Nebr.	1.15	1.15	1.15	1.00	1.00	1.15	1.15	1.15	1.53	1.45	1.45	1.40	1.35	1.35
Peoria, Ill.	.90	.90	.90	.90	.85	.85	.85	.85	1.20	1.20	1.20	1.20	1.20	1.20
Philadelphia, Pa.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pittsburgh, Pa.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	[6]	[6]	[6]	[6]	[6]	[6]	[6]
Portland, Me.	1.10	1.00	1.00	1.00	1.00	1.00	1.40	1.40	1.85	1.85	1.75	1.75	1.65	1.65
Portland, Oreg.	.95	.95	.95	.95	.95	.95	.95	.95	1.67	1.50	1.50	1.50	1.50	1.43
Providence, R. I.	.85	.85	.85	.85	.85	1.00	1.30	1.30	[1] 1.25	[1] 1.25	[1] 1.25	[1] 1.25	[1] 1.25	[1] 1.15
Richmond, Va.	.90	.90	.90	.80	.80	.80	1.00	1.00	1.30	1.30	1.30	1.30	1.30	1.30
Rochester, N. Y.	.95	.95	.95	.95	.95	.95	.95	.95	[7] 1.05	[7] 1.05	1.10	1.10	1.10	1.10
St. Louis, Mo.	.80	.80	.80	.80	.75	.75	.75	.85	1.05	1.05	1.05	1.05	1.05	1.05
St. Paul, Minn.	.95	.90	.90	.85	.85	.85	.85	.85	1.00	1.00	1.00	1.00	1.00	.85
Salt Lake City, Utah.	.90	.90	.90	.90	.90	.90	1.10	[3] 1.30	[3] 1.52	[3] 1.52	[3] 1.52	[3] 1.52	[3] 1.52	[3] 1.52
San Francisco, Calif.	.75	.85	.85	.85	.85	.85	.95	.95	1.05	1.04	1.04	1.04	1.02	.92
Savannah, Ga.	.....	.....	.....	.....	.....	.....	.....	1.25	1.60	1.60	1.60	1.60	1.45	1.45
Scranton, Pa.	.95	.95	.95	.95	.95	1.15	1.30	1.30	1.70	1.70	1.70	1.70	1.60	1.60
Seattle, Wash.	1.00	1.00	1.00	1.00	1.00	1.25	1.25	1.55	1.55	1.55	1.55	1.50	1.50	1.50
Springfield, Ill.	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.10	1.40	1.40	1.40	1.40	1.40	1.40
Washington, D. C.	.93	.93	.93	.93	.80	.90	.95	.95	1.25	1.25	1.10	1.10	1.05	1.05

[1] Plus 50 cents per month service charge.
[2] The rate was increased from 90 cents by order of the Federal court, and is subject to final decision by the same court. Pending the decision this increase has been impounded.
[3] Plus 25 cents per month service charge.
[4] The prices of two companies included in this average have an additional service charge of 2½ cents per day.
[5] The price of one company included in this average has an additional service charge of 2½ cents per day.
[6] Sale of manufactured gas discontinued.
[7] Plus 40 cents per month service charge.

NET PRICE FOR THE FIRST 1,000 CUBIC FEET OF GAS, FOR HOUSEHOLD USE, ON APRIL 15 OF EACH YEAR 1913 TO 1920, AND ON MAY 15, SEPTEMBER 15, AND DECEMBER 15, 1921, AND MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922, BY CITIES—Concluded.

Natural gas.

City.	Apr. 15, 1913.	Apr. 15, 1914.	Apr. 15, 1915.	Apr. 15, 1916.	Apr. 15, 1917.	Apr. 15, 1918.	Apr. 15, 1919.	Apr. 15, 1920.	May 15, 1921.	Sept. 15, 1921.	Dec. 15, 1921.	Mar. 15, 1922.	June 15, 1922.	Sept. 15, 1922.
Buffalo, N. Y.	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30	$0.35	$0.35	$0.35	$0.40	$0.40	$0.42	$0.42	$0.65 [8]
Cincinnati, Ohio	.30	.30	.30	.30	.30	.35	.35	.35	.35	.35	.50	.50	.50	.50
Cleveland, Ohio	.30	.30	.30	.30	.30	.30	.35	.35	.35	.35	.45	.40	.40	.40
Columbus, Ohio	.....	.....	.....	.....	.30	.30	.30	.30	.30	.45	.45	.45	.45	.45
Dallas, Tex	.45	.45	.45	.45	.45	.45	.45	.45	.67½	.67½	.67½	.67½	.67½	.67½
Kansas City, Mo	.27	.27	.27	.27	.30	.60	.80	.80	1.80	1.80	1.80	1.80	1.80	1.85
Little Rock, Ark	.40	.40	.40	.40	.40	.40	.45	.45	.45	.45	.45	.45	.45	.45
Louisville, Ky	.....	.62	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65
Pittsburgh, Pa	.28	.28	.28	.28	.28	.28	.35	.35	.45	.45	.50	.50	.50	.50

Manufactured and natural gas, mixed.

Los Angeles, Calif.	.....	.....	$0.68	$0.68	$0.68	$0.68	$0.75	$0.75	$0.75	$0.76	$0.76	$0.76	$0.73	$0.70

[1] Plus 50 cents per month service charge. [8] Natural and coke-oven gas mixed.

From the prices quoted on manufactured gas in 43 cities average prices have been computed for the 43 cities combined and are shown in the next table for April 15 of each year from 1913 to 1920 and for May 15, September 15, and December 15, 1921, March 15, June 15, and September 15, 1922. Relative prices have been computed by dividing the price of each year by the price in April, 1913.

As may be seen in the table, the price of manufactured gas changed but little until 1921. The price in September, 1922, showed an increase of 34 per cent since April, 1913. From June, 1922, to September, 1922, there was a decrease of 2 per cent.

AVERAGE[1] AND RELATIVE PRICES OF MANUFACTERED GAS, FOR HOUSEHOLD USE, PER 1,000 CUBIC FEET, ON APRIL 15 OF EACH YEAR, 1913 TO 1920, AND ON MAY 15, SEPTEMBER 15, AND DECEMBER 15, 1921, AND MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922, FOR ALL CITIES COMBINED.

[Average prices in April, 1913=100.]

Date.	Average price.	Relative price.	Date.	Average price.	Relative price.
April 15, 1913	$0.95	100	April 15, 1920	$1.09	115
April 15, 1914	.94	99	May 15, 1921	1.32	139
April 15, 1915	.93	98	September 15, 1921	1.31	138
April 15, 1916	.92	97	December 15, 1921	1.30	137
April 15, 1917	.92	97	March 15, 1922	1.29	136
April 15, 1918	.95	100	June 15, 1922	1.29	136
April 15, 1919	1.04	109	September 15, 1922	1.27	134

[1] Net price.

Retail Prices of Electricity in the United States.

THE following table shows for 32 cities the net price per kilowatt hour of electricity used for household purposes. Rates for these cities are shown for certain specified months; for 19 cities from December, 1914, to September, 1922, and for 13 cities from December, 1917, to September, 1922.

The consumption per month is expressed in hours of demand for several of the cities from which prices for electricity have been obtained. Since the demand is determined by a different method in each city, the explanation of these methods is given following the table.

NET PRICE PER KILOWATT HOUR FOR ELECTRICITY, FOR HOUSEHOLD USE, IN SPECIFIED MONTHS, 1914 TO 1922, FOR 32 CITIES.

City.	Measure of consumption, per month.	December, 1914.	December, 1915.	December, 1916.	December, 1917.	1918		1919		1920		1921			1922		
						June.	December.	June.	December.	June.	December.	May.	September.	December.	March.	June.	September.
		Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Atlanta	First 100 kilowatt hours				7.0	7.0	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Baltimore	First 50 kilowatt hours	8.5	8.5	8.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Birmingham	First 100 kilowatt hours				8.1	8.1	8.1	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Boston:																	
Company A	All current	10.0	10.0	10.0	10.0	10.0	[1] 11.2	[1] 11.5	[1] 11.4	[1] 11.8	[1] 11.8	[1] 11.3	[1] 11.2	[1] 11.0	10.0	10.0	9.5
Company B	do	10.0	10.0	10.0	10.0	10.0	[1] 11.5	[1] 11.5	[1] 11.4	[1] 11.8	[1] 11.8	[1] 11.3	[1] 11.3	[1] 11.0	10.0	10.0	9.5
Buffalo[2]	First 60 hours' use of demand	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
	Next 120 hours' use of demand	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	Excess	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Chicago[2]	First 30 hours' use of demand	10.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	Next 30 hours' use of demand	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	Excess	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Cincinnati[2]	First 30 hours' use of demand				8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	Next 30 hours' use of demand				6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
	Excess				3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Cleveland:																	
Company A[2]	All current	[3] 10.0	[3] 10.0	[3] 10.0	[4] 10.0	[4] 10.0	[4] 10.0	[4] 10.0	[4] 10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	Excess	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0								
Company B	All current	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Denver	do				8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Detroit	First 3 kilowatt hours per active room.	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	[5] 12.6	12.6	12.6	12.6	12.6	12.6	12.6	10.8
	Excess	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Houston[2]	First 30 hours' use of demand	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.2	7.2	7.2
	Excess	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Indianapolis:[6]																	
Company A	First block of demand				6.5	6.5	6.5	6.5	6.5	6.5	7.5	7.5	7.5	7.5	7.5	7.0	7.5
	Excess				5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0	6.5	7.0
Company B	First 50 kilowatt hours				6.5	6.5	6.5	6.5	6.5	6.5	7.5	7.5	7.5	7.5	7.5	7.0	7.0
	Next 150 kilowatt hours				5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0	6.0	7.0
Jacksonville	All current	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Kansas City	First 3 kilowatt hours per room (minimum, 3 rooms).				7.6	7.6	8.4	8.4	9.0	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	Excess				4.8	4.8	5.2	5.2	5.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4

[1] Price includes a coal charge, and a surcharge of 10 per cent from December, 1918, to June, 1920, and 5 per cent from December, 1920, to December, 1921.

[2] For determination of demand see explanation following table.

[3] First 36 hours' use of demand. For determination of demand see explanation following table.

[4] First 1,000 kilowatt hours.

[5] First 2 kilowatt hours' per active room.

[6] The block of demand was changed Apr. 1, 1922. For determination of demand in effect from December, 1917, to March, 1922, and in June and September, 1922, see explanation following table.

NET PRICE PER KILOWATT HOUR FOR ELECTRICITY, FOR HOUSEHOLD USE, IN SPECIFIED MONTHS, 1914 TO 1922, FOR 32 CITIES—Con.

City.	Measure of consumption, per month.	December, 1914.	December, 1915.	December, 1916.	December, 1917.	1918		1919		1920		1921			1922		
						June.	December.	June.	December.	June.	December.	May.	September.	December.	March.	June.	September.
Los Angeles:		*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Company A	First 100 kilowatt hours	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	6.2	6.2	6.2	6.2	6.2	5.6	5.6
Company B	do	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	6.2	6.2	6.2	6.2	6.2	5.6	.....
Memphis	First 50 kilowatt hours	.....	.....	.....	[7] 6.0	[7] 6.0	[7] 6.0	[7] 6.0	[7] 6.0	[7] 6.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Minneapolis	First 3 kilowatt hours per active room.	.....	.....	.....	7.6	7.6	9.5	9.5	9.5	9.5	[8] 10.5	9.5	9.5	9.5	9.5	9.5	9.5
	Next 3 kilowatt hours per active room.	.....	.....	.....	5.7	5.7	7.1	7.1	7.1	7.1	[8] 7.8	7.1	7.1	7.1	7.1	7.1	7.1
Mobile	First 50 kilowatt hours	7.0	7.0	7.0	8.0	8.0	[9] 11.7	[9] 11.7	[9] 10.8	8.0	8.0	9.0	9.0	9.0	9.0	9.0	9.0
New Orleans [10]	First 20 kilowatt hours	.....	.....	.....	7.0	7.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
	Next 30 kilowatt hours	.....	.....	.....	6.0	6.0	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
New York:																	
Company A	First 1,000 kilowatt hours	[11] 10.0	[12] 8.0	8.0	7.0	7.0	7.0	7.0	7.0	7.0	[13] 7.9	[13] 7.9	[13] 7.7	[13] 7.7	[13] 7.5	[13] 7.4	[13] 7.5
Company B [14]	All current	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Company C [2]	First 60 hours' use of demand	11.0	11.0	11.0	8.0	8.0	8.0	8.0	8.0	8.0	[13] 9.0	[13] 8.8	[13] 8.8	[13] 8.7	[13] 8.4	[13] 8.4	8.5
Norfolk	First 100 kilowatt hours	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Philadelphia:																	
Company A	First 12 kilowatt hours	[15] 10.0	[15] 10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.0	8.0
	Next 75 kilowatt hours	.....	.....	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Company B	First 500 kilowatt hours	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Pittsburgh [2]	First 30 hours' use of demand	.....	.....	.....	[15] 8.0	[15] 8.0	[15] 8.0	[15] 8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	Next 60 hours' use of demand	.....	.....	.....	.....	.....	.....	.....	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Portland, Me	All current	9.0	8.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Portland, Oreg.:																	
Company A	First 9 kilowatt hours	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
	Next kilowatt hours [16]	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt hours	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Company B	First 13 kilowatt hours	[17] 9.0	[17] 9.0	[17] 9.0	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	Next kilowatt hours [18]	[19] 7.0	[19] 7.0	[19] 7.0	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt hours	[20] 4.0	[20] 4.0	[20] 4.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Richmond, Va	First 100 kilowatt hours	.....	.....	.....	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
St. Louis:																	
Company A [21]	First block of demand	.....	.....	.....	7.6	7.6	7.6	8.1	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
	Next block of demand	.....	.....	.....	5.7	5.7	5.7	6.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
	Excess	.....	.....	.....	2.9	2.9	2.9	3.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Company B [22]	First block of demand	.....	.....	.....	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
	Next block of demand	.....	.....	.....	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
	Excess	.....	.....	.....	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9

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San Francisco:																	
Company A	First 50 kilowatt hours	7.0	7.0	7.0	7.0	7.0	8.0	[23] 8.0	[23] 8.0	[23] 8.0	[23] 9.2	8.5	8.5	8.5	8.5	8.5	8.5
Company B	First 50 kilowatt hours	7.0	7.0	7.0	7.0	7.0	8.0	[23] 8.0	[23] 8.0	[23] 8.0	9.2	8.5	8.5	8.5	8.5	8.5	8.5
Savannah:																	
Company A	First 50 kilowatt hours	[24] 10.8	[24] 10.8	[24] 10.8	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	Excess	5.4	5.4	5.4													
Company B	First 100 kilowatt hours	[15] 6.0	[15] 6.0	[15] 6.0	[25] 7.2	[25] 7.2	[25] 7.2	[25] 7.2	[25] 7.2	[25] 7.2	[25] 9.0	9.0	9.0	9.0	9.0	9.0	9.0
Scranton	First 150 kilowatt hours	.....	.....	.....	8.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Seattle:																	
Company A	First 45 kilowatt hours	[26] 6.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Company B	First 45 kilowatt hours	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Washington, D. C.[2]	First 120 hours' use of demand	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

[2] For determination of demand see explanation following table.
[7] Plus an additional charge of 30 cents per month. At the end of the year there is a refund of any amount paid in excess of 7½ cents per kilowatt hour.
[8] Price includes a 10 per cent surcharge.
[9] First 100 kilowatt hours.
[10] There is an additional service charge of 25 cents per month in New Orleans.
[11] First 250 kilowatt hours.
[12] First 900 kilowatt hours.
[13] Price includes a coal charge.
[14] A discount of 5 per cent is allowed on all bills over $2 when payment is made within 10 days.
[15] All current.
[16] The number of kilowatt hours paid for at this rate is that in excess of the first 9 kilowatt hours until 100 hours' use of the demand is reached. After 100 hours of demand has been consumed the lower rate can be applied. For determination of demand see explanation following table.
[17] First 6 per cent of demand. For determination of demand see explanation following table.
[18] For an installation of 600 watts or less 7 kilowatt hours will apply. For each 30 watts of installation in excess of 60 watts one additional kilowatt hour will apply.
[19] Next 6 per cent of demand. For determination of demand see explanation following table.
[20] Excess.
[21] For determination of demand in effect from December, 1917, to October, 1919, and that in effect since Oct. 31, 1919, see explanation following table.
[22] For determination of demand in effect from December, 1917, to July 31, 1922, and that in effect since July 31, 1922, see explanation following table.
[23] First 30 kilowatt hours
[24] First 10 kilowatt hours
[25] First 50 kilowatt hours.
[26] First 60 kilowatt hours.

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Determination of Demand.

IN BUFFALO, from December, 1914, to September, 1922, there has been no change in the method of determining the number of kilowatt hours to be paid for at each rate. The demand consists of two parts—lighting, 25 per cent of the total installation, but never less than 250 watts; and power, 2½ per cent of the capacity of any electric range, water heater, or other appliance of 1,000 watts or over and 25 per cent of the rated capacity of motors exceeding one-half horsepower but less than 1 horsepower. The installation is determined by inspection of premises.

In Chicago, from December, 1914, to September, 1922, the equivalent in kilowatt hours to 30 hours' use of demand has been estimated as follows: For a rated capacity of 475 to 574 watts, 11 kilowatt hours; 575 to 674 watts, 12 kilowatt hours; 675 to 774 watts, 13 kilowatt hours; and 775 to 874 watts, 14 kilowatt hours. Although the equivalent in kilowatt hours to 30 hours' use of demand of from 1 to 1,500 watts is given on the printed tariff, the equivalent is here shown only for installations of from 475 to 874 watts; the connected load of the average workingman's home being, as a rule, within this range.

In Cincinnati, from December, 1917, to September, 1922, the demand has been estimated as being 70 per cent of the connected load, excluding appliances.

In Cleveland, from December, 1914, to December, 1916, inclusive, Company A determined the demand by inspection as being 40 per cent of the connected load. From December, 1917, to December, 1919, there was a fixed number of kilowatt hours to be paid for at the primary rate by all customers, after which there was a flat rate for all current consumed.

In Houston, from December, 1914, to September, 1922, the demand has been estimated as 50 per cent of the connected load, each socket opening being rated at 50 watts.

In Indianapolis the schedule of rates has been the same for both companies from December, 1917, to July 1, 1922. From April 1, 1922, to September 1, 1922, for Company A, and from April 1, 1922, to July 1, 1922, for Company B, the first block of demand consisted of the first 5 kilowatt hours for each of the first 5 active rooms plus the first 3 kilowatt hours for each additional room, but not less than 15 kilowatt hours per month. Beginning July 1, 1922, Company B's schedule gives a fixed number of kilowatt hours to be paid for at each rate.

From December, 1917, to March, 1922, the first block of demand for these companies was for 1.5 kilowatt hours per socket for not less than 10 sockets, 1 kilowatt hour per socket for the next 10 sockets, and 0.5 kilowatt hour per socket for excess sockets.

In New York the demand for Company C from December, 1914, to September, 1922, when not determined by meter, has been computed at 50 per cent of total installation in residences, each standard socket being rated at 50 watts and all other outlets being rated at their actual kilowatt capacity.

In Pittsburgh from December, 1919, to September, 1922, the demand has been determined by inspection. The first 10 outlets

have been rated at 30 watts each, the next 20 outlets at 20 watts each, and each additional outlet at 10 watts. Household utensils and appliances of not over 660 watts each have been excluded.

In Portland, Oreg., from June 16, 1917, to September, 1922, the demand for Company A has been estimated as one-third of the connected lighting load. Ranges, heating devices, and small power up to rated capacity of 2 kilowatts are not included.

From December, 1914, to December, 1916, inclusive, the demand for Company B, when not based on actual measurement, was estimated at one-third of the connected load. No demand was established at less than 233 watts. Since December, 1917, the present schedule has been in effect.

In St. Louis the first block of demand for Company A from December, 1917, to October, 1919, consisted of the first 4 kilowatt hours per month for each of the first 4 active rooms and the first 2½ kilowatt hours for each additional active room. The second block consisted of additional energy until a total of 7 kilowatt hours per month per active room had been consumed, after which the third rate became effective. Since October 31, 1919, the first block has consisted of the first 5 kilowatt hours per month for each of the first 5 active rooms, and the first 2½ kilowatt hours for each additional active room. The second block has been for additional energy until a total of 9 kilowatt hours per active room shall have been consumed. The third rate then becomes effective.

From December, 1917, to July 31, 1922, the number of kilowatt hours paid for at the primary and secondary rates for Company B was as follows: For homes of 4 rooms or less, 8 kilowatt hours at the primary rate and 6 at the secondary rate; 5 or 6 rooms, 12 kilowatt hours at the primary rate and 9 at the secondary rate; 7 or 8 rooms, 16 kilowatt hours at the primary rate and 12 at the secondary rate; 9 or 10 rooms, 20 kilowatt hours at the primary rate and 15 at the secondary rate. Beginning with August 1, 1922, the following number of kilowatt hours have been paid for at the primary and the secondary rates: For homes of 4 rooms or less, 10 kilowatt hours at the primary rate and 8 at the secondary rate; 5 or 6 rooms, 15 kilowatt hours at the primary rate and 12 at the secondary rate; 7 or 8 room, 20 kilowatt hours at the primary rate and 16 at the secondary rate; 9 or 10 rooms, 25 kilowatt hours at the primary rate and 20 at the secondary rate.

In Washington, D. C., from December, 1914, to September, 1922, the demand as determined by inspection consists of 100 per cent of the connected load, excluding small fans and heating and cooking appliances.

Retail Prices of Dry Goods in the United States.[1]

THE following table gives the average retail prices of 10 articles of dry goods on the 15th of February, May, and August, 1921, and on the 15th of March, June, and September, 1922, by cities. The averages given are based on the retail prices of standard brands only.

[1] Retail prices of dry goods are secured from each of 51 cities and are published at quarterly intervals in the MONTHLY LABOR REVIEW.

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON FEBRUARY 15, MAY 15, AND AUGUST 15, 1921, AND ON MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922.

Article.	Unit.	Atlanta, Ga.						Baltimore, Md.						Birmingham, Ala.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	$0.125	$0.100	$0.100	$0.100
Percale	do	$0.275	$0.250	$0.251	$0.263	$0.257	$0.268	$0.243	$0.238	$0.238	$0.235	$0.244	$0.243	$0.258	$0.250	.250	.261	.245	.245
Gingham, apron, 27 to 28 inch	do	.161	.158	.183	.171	.178	.175	.161	.161	.147	.158	.156	.158	.175	.148	.140	.161	.170	.163
Gingham, dress, 27-inch	do	.238	.245	.246	.254	.253	.259	.234	.238	.241	.243	.236	.233	.251	.249	.242	.246	.257	.265
Gingham, dress, 32-inch	do	.464	.483	.453	.459	.471	.452	.349	.368	.365	.376	.361	.366	.413	.419	.454	.490	.463	.473
Muslin, bleached	do	.222	.214	.187	.204	.212	.217	.211	.216	.208	.226	.212	.218	.194	.175	.166	.177	.177	.191
Sheeting, bleached, 9-4	do	.662	.668	.647	.735	.728	.718	.673	.673	.649	.739	.695	.689	.604	.591	.558	.639	.648	.643
Sheets, bleached, 81 by 90	Each	1.599	1.591	1.583	1.646	1.652	1.655	1.754	1.736	1.707	1.718	1.655	1.673	1.517	1.469	1.395	1.469	1.482	1.491
Outing flannel, 27 to 28 inch	Yard	.265	.248	.212	.218	.210	.216	.252	.223	.219	.223	.216	.231	.245	.205	.210	.202	.205	.215
Flannel, white, wool, 27-inch	do	1.250	1.117	1.000	.950	.....	.990	1.077	1.080	1.140	1.000	.952	.993	1.096	.974	.980	.868	.923	1.004
Blankets, cotton, 66 by 80	Pair	3.240	4.740	3.937	3.913	3.868	3.695	6.113	5.894	4.711	4.131	4.479	4.427	4.804	4.154	4.066	4.183	4.183	4.036

Article.	Unit.	Boston, Mass.						Bridgeport, Conn.						Buffalo, N. Y.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	$0.150	$0.150	$0.150	$0.142	$0.142	$0.161	.....	.....	.....	.....	.....	.....	$0.113	$0.119	$0.106	$0.106	$0.113	$0.141
Percale	do	.266	.246	.241	.257	.261	.246	$0.278	$0.255	$0.245	$0.246	$0.245	$0.255	.285	.259	.262	.263	.263	.281
Gingham, apron, 27 to 28 inch	do	.178	.206	.162	.173	.170	.174	.185	.182	.170	.170	.174	.174	.196	.160	.158	.181	.179	.201
Gingham, dress, 27-inch	do	.240	.248	.245	.239	.238	.228	.253	.237	.230	.260	.227	.244	.242	.257	.280	.266	.261	.255
Gingham, dress, 32-inch	do	.504	.499	.521	.490	.462	.440	.488	.488	.474	.496	.450	.423	.491	.522	.506	.533	.482	.510
Muslin, bleached	do	.262	.238	.244	.249	.252	.244	.241	.208	.200	.223	.227	.232	.258	.226	.216	.229	.216	.219
Sheeting, bleached, 9-4	do	.666	.659	.661	.681	.669	.672	.660	.677	.677	.709	.678	.680	.681	.689	.676	.708	.674	.667
Sheets, bleached, 81 by 90	Each	1.663	1.698	1.619	1.659	1.685	1.636	1.855	1.855	1.741	1.786	1.773	1.710	1.789	1.718	1.702	1.739	1.674	1.648
Outing flannel, 27 to 28 inch	Yard	.251	.259	.249	.211	.212	.215	.300	.252	.225	.238	.274	.246	.297	.231	.228	.212	.240	.218
Flannel, white, wool, 27-inch	do	.998	.891	.891	.880	.880	.896	1.250	.....	.700	.750	.670	.897	.865	.....	.850	.865	.865	.913
Blankets, cotton, 66 by 80	Pair	4.735	4.368	4.483	4.000	3.995	3.675	6.050	5.850	5.000	5.042	5.150	4.388	5.530	5.416	5.384	4.796	4.474	4.160

		Butte, Mont.						Charleston, S. C.						Chicago, Ill.					
Calico, 24 to 25 inch	Yard	$0.150	$0.150	$0.150	$0.133	$0.133	$0.100	$0.133	$0.131	$0.113	$0.119	$0.119	$0.125	$0.132	$0.126	$0.129	$0.117	$0.119	$0.122
Percale	do	.334	.310	.258	.263	.335	.305	.265	.244	.239	.238	.241	.241	.284	.279	.250	.231	.226	.237
Gingham, apron, 27 to 28 inch	do	.214	.188	.180	.170	.178	.182	.164	.153	.153	.153	.163	.161	.159	.142	.143	.157	.154	.155
Gingham, dress, 27-inch	do	.300	.270	.248	.261	.237	.235	.232	.217	.218	.247	.236	.228	.255	.245	.245	.236	.226	.228
Gingham, dress, 32-inch	do	.478	.471	.478	.438	.430	.464	.420	.373	.376	.415	.403	.424	.579	.559	.592	.537	.503	.456
Muslin, bleached	do	.244	.244	.228	.241	.239	.239	.223	.194	.193	.203	.199	.204	.228	.208	.214	.203	.205	.215
Sheeting, bleached, 9-4	do	.842	.788	.767	.803	.823	.816	.614	.602	.588	.664	.614	.607	.637	.641	.649	.672	.666	.667
Sheets, bleached, 81 by 90	Each	2.113	1.992	1.933	2.044	1.991	2.010	1.553	1.539	1.511	1.685	1.579	1.521	1.530	1.569	1.566	1.643	1.574	1.655
Outing flannel, 27 to 28 inch	Yard	.308	.286	.272	.264	.266	.267	.262	.218	.197	.208	.207	.208	.236	.200	.209	.189	.198	.210
Flannel, white, wool, 27-inch	do	.950	1.013	1.013	.890	.964	.980	1.073	.713	.725	.760	.818	.835	1.100	.950	.892	1.420	1.400	1.475
Blankets, cotton, 66 by 80	Pair	4.875	5.190	5.270	5.130	5.260	4.860	4.060	4.135	3.655	3.880	.....	4.215	5.098	4.986	4.628	4.772	4.688	4.667

		Cincinnati, Ohio.						Cleveland, Ohio.						Columbus, Ohio.					
Calico, 24 to 25 inch	Yard	$0.173	$0.150	$0.150	$0.129	$0.132	$0.150	.....	$0.125	$0.125	$0.133	$0.158	$0.160	$0.145	$0.141	$0.132	$0.148	$0.141	$0.144
Percale	do	.276	.268	.245	.246	.244	.235	$0.276	.249	.263	.259	.250	.265	.267	.251	.250	.246	.253	.258
Gingham, apron, 27 to 28 inch	do	.165	.145	.139	.149	.155	.161	.175	.174	.140	.167	.168	.176	.163	.176	.164	.169	.167	.173
Gingham, dress, 27-inch	do	.244	.242	.252	.237	.240	.250	.238	.229	.243	.242	.243	.244	.275	.279	.280	.281	.280	.293
Gingham, dress, 32-inch	do	.574	.561	.549	.511	.490	.462	.528	.508	.516	.553	.473	.489	.593	.584	.570	.581	.556	.534
Muslin, bleached	do	.213	.208	.195	.198	.196	.204	.252	.238	.229	.239	.230	.238	.222	.209	.190	.215	.210	.215
Sheeting, bleached, 9-4	do	.643	.639	.629	.625	.629	.645	.676	.696	.666	.682	.642	.656	.763	.709	.699	.750	.736	.726
Sheets, bleached, 81 by 90	Each	1.604	1.617	1.550	1.667	1.650	1.624	1.558	1.523	1.525	1.675	1.625	1.655	1.743	1.777	1.709	1.785	1.763	1.750
Outing flannel, 27 to 28 inch	Yard	.237	.215	.209	.202	.200	.201	.234	.204	.205	.229	.215	.243	.290	.250	.218	.234	.238	.247
Flannel, white, wool, 27-inch	do	1.250	.983	.873	.926	.926	.928	1.250	1.000	1.000	.983	1.017	1.017	.....	.....	.....	1.250	1.250	1.000
Blankets, cotton, 66 by 80	Pair	4.920	4.771	4.211	3.903	3.976	4.115	5.420	4.779	4.529	4.550	4.441	4.494	4.749	4.711	4.564	4.089	4.205	4.272

		Dallas, Tex.						Denver, Colo.						Detroit, Mich.					
Calico, 24 to 25 inch	Yard	$0.125	$0.125	$0.100	$0.100	$0.108	$0.108	$0.175	$0.145	$0.134	$0.167	$0.195	$0.175	$0.136	$0.136	$0.136	$0.129	$0.121	$0.120
Percale	do	.270	.246	.233	.219	.246	.238	.348	.321	.304	.298	.298	.275	.282	.282	.262	.264	.258	.258
Gingham, apron, 27 to 28 inch	do	.174	.143	.143	.162	.162	.168	.179	.170	.160	.168	.178	.176	.190	.181	.172	.172	.178	.176
Gingham, dress, 27-inch	do	.247	.225	.225	.237	.245	.249	.264	.242	.249	.258	.263	.269	.225	.219	.220	.223	.220	.216
Gingham, dress, 32-inch	do	.516	.542	.513	.497	.457	.439	.626	.565	.571	.535	.507	.479	.574	.520	.489	.510	.494	.472
Muslin, bleached	do	.209	.187	.195	.206	.204	.214	.245	.239	.234	.221	.231	.236	.225	.220	.209	.223	.228	.231
Sheeting, bleached, 9-4	do	.593	.570	.559	.627	.625	.593	.716	.754	.740	.768	.779	.739	.715	.693	.698	.733	.718	.714
Sheets, bleached, 81 by 90	Each	1.529	1.514	1.443	1.561	1.486	1.506	1.823	1.922	1.862	1.754	1.704	1.673	1.727	1.770	1.765	1.751	1.733	1.746
Outing flannel, 27 to 28 inch	Yard	.194	.184	.196	.188	.187	.191	.271	.218	.212	.218	.237	.228	.263	.247	.229	.220	.218	.226
Flannel, white, wool, 27-inch	do	.....	.....	.650	.....	.750	.850	.....	1.425	1.050	.979	.979	.973	1.233	1.233	1.233	1.233	1.317	1.067
Blankets, cotton, 66 by 80	Pair	4.156	4.350	4.706	4.522	4.500	3.960	5.396	5.646	5.542	4.854	4.725	4.842	5.013	4.708	4.623	4.270	4.144	4.280

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON FEBRUARY 15, MAY 15, AND AUGUST 15, 1921, AND ON MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922—Continued.

Article.	Unit.	Fall River, Mass.						Houston, Tex.						Indianapolis, Ind.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	.....	.....	.....	.....	.....	.....	$0.125	$0.123	$0.123	$0.122	$0.126	$0.128	$0.140	$0.128	$0.123	$0.126	$0.125	$0.125
Percale	do	$0.238	$0.246	$0.246	$0.258	$0.258	$0.246	.280	.282	.262	.268	.242	.252	.295	.285	.275	.277	.272	.270
Gingham, apron, 27 to 28 inch	do	.167	.145	.143	.158	.155	.156	.163	.158	.168	.172	.167	.167	.171	.164	.165	.168	.173	.172
Gingham, dress, 27-inch	do	.240	.238	.243	.283	.283	.280	.220	.204	.199	.210	.205	.208	.249	.242	.263	.260	.257	.278
Gingham, dress, 32-inch	do	.390	.402	.460	.443	.433	.450	.497	.523	.515	.505	.486	.485	.410	.381	.456	.532	.512	.461
Muslin, bleached	do	.230	.203	.221	.223	.227	.240	.209	.173	.176	.188	.184	.190	.238	.220	.215	.208	.213	.213
Sheeting, bleached, 9–4	do	.783	.688	.697	.720	.705	.693	.588	.518	.565	.579	.574	.582	.698	.671	.683	.693	.683	.657
Sheets, bleached, 81 by 90	Each	1.610	1.690	1.680	1.710	1.717	1.655	1.654	1.528	1.507	1.613	1.518	1.576	1.527	1.571	1.523	1.611	1.593	1.564
Outing flannel, 27 to 28 inch	Yard	.258	.254	.236	.228	.203	.170	.203	.188	.170	.182	.173	.198	.254	.226	.198	.200	.206	.210
Flannel, white, wool, 27-inch	do	.....	.....	.690	.....	.923	.910	.804	.723	.723	.762	.773	.850	.997	.997	.997	1.023	1.050	1.033
Blankets, cotton, 66 by 80	Pair	4.320	3.555	4.944	4.406	4.384	4.278	5.932	4.983	3.943	4.270	.....	4.733	4.905	4.503	4.808	4.628	4.439	4.484

Article.	Unit.	Jacksonville, Fla.						Kansas City, Mo.						Little Rock, Ark.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	$0.138	$0.144	$0.144	$0.144	$0.142	$0.142	$0.161	$0.149	$0.138	$0.144	$0.142	$0.145	$0.200	$0.133	$0.140	$0.113	$0.114	$0.118
Percale	do	.300	.270	.290	.270	.270	.270	.284	.260	.251	.270	.258	.270	.276	.261	.230	.235	.255	.249
Gingham, apron, 27 to 28 inch	do	.160	.170	.170	.170	.164	.160	.190	.181	.189	.206	.210	.210	.188	.156	.163	.150	.150	.175
Gingham, dress, 27-inch	do	.233	.243	.243	.240	.232	.228	.270	.267	.273	.270	.282	.276	.215	.208	.236	.231	.229	.233
Gingham, dress, 32-inch	do	.438	.446	.540	.465	.439	.425	.555	.534	.522	.487	.490	.470	.409	.399	.433	.451	.427	.436
Muslin, bleached	do	.229	.216	.204	.215	.217	.219	.241	.204	.225	.229	.223	.233	.221	.200	.198	.183	.184	.204
Sheeting, bleached, 9–4	do	.688	.642	.608	.670	.710	.750	.705	.699	.660	.743	.718	.718	.664	.583	.567	.687	.611	.658
Sheets, bleached, 81 by 90	Each	1.615	1.482	1.444	1.498	1.460	1.478	1.712	1.675	1.519	1.612	1.646	1.647	1.700	1.543	1.484	1.646	1.531	1.640
Outing flannel, 27 to 28 inch	Yard	.270	.210	.206	.220	.195	.195	.243	.223	.203	.222	.220	.240	.238	.197	.206	.178	.187	.228
Flannel, white, wool, 27-inch	do	.850	.850	.850	.....	.750	.750	.750	.750	.920	.850	.725	.725	.911	.771	.886	.894	.867	.915
Blankets, cotton, 66 by 80	Pair	5.317	.....	4.250	4.186	4.250	3.908	5.431	4.969	4.810	4.997	5.176	4.747	4.175	3.875	3.895	3.676	3.386	3.393

[1010]

[1011]

		Los Angeles, Calif.						Louisville, Ky.						Manchester, N. H.					
Calico, 24 to 25 inch	Yard	$0.150	$0.125	$0.125	$0.163	$0.138	$0.168	$0.134	$0.129	$0.125	$0.122	$0.125	$0.133	$0.130	$0.129	$0.128	$0.133	$0.139	$0.125
Percale	do	.353	.317	.280	.297	.274	.274	.261	.246	.257	.257	.270	.261	.261	.233	.229	.220	.215	.217
Gingham, apron, 27 to 28 inch	do	.186	.185	.178	.172	.173	.173	.156	.159	.143	.163	.156	.163	.156	.163	.163	.167	.151	.170
Gingham, dress, 27-inch	do	.274	.251	.254	.257	.255	.240	.269	.261	.260	.252	.262	.251	.233	.222	.221	.224	.211	.210
Gingham, dress, 32-inch	do	.584	.557	.518	.556	.548	.550	.532	.550	.539	.454	.461	.478	.450	.439	.427	.456	.453	.387
Muslin, bleached	do	.247	.230	.217	.226	.225	.237	.194	.189	.199	.198	.207	.210	.236	.226	.224	.225	.220	.232
Sheeting, bleached, 9–4	do	.713	.666	.688	.744	.709	.685	.635	.609	.616	.675	.658	.635	.719	.633	.627	.644	.577	.571
Sheets, bleached, 81 by 90	Each	1.623	1.586	1.596	1.662	1.632	1.695	1.932	1.604	1.608	1.620	1.579	1.566	1.625	1.636	1.634	1.656	1.505	1.520
Outing flannel, 27 to 28 inch	Yard	.269	.255	.246	.239	.241	.242	.257	.220	.228	.240	.240	.251	.230	.240	.228	.223	.231	.230
Flannel, white, wool, 27-inch	do	.950	1.317	1.317	1.250	1.125	1.125	.875	.670	.750	.807	.973	1.053	1.250	.885	.840	.864	.868	.895
Blankets, cotton, 66 by 80	Pair	5.106	4.633	4.342	4.443	4.436	4.489	5.917	5.000	4.980	3.787	4.057	4.722	4.302	4.009	4.472	4.083	3.752	3.464
		Memphis, Tenn.						**Milwaukee, Wis.**						**Minneapolis, Minn.**					
Calico, 24 to 25 inch	Yard	$0.144	$0.153	$0.121	$0.132	$0.135	$0.135	$0.155	$0.122	$0.130	$0.132	$0.123	$0.150	$0.132	$0.130	$0.111	$0.107	$0.105	$0.105
Percale	do	.301	.295	.255	.252	.238	.266	.260	.260	.258	.258	.258	.231	.242	.244	.262	.267	.259	.256
Gingham, apron, 27 to 28 inch	do	.150	.146	.146	.159	.156	.159	.176	.173	.173	.176	.176	.165	.169	.165	.165	.162	.155	.159
Gingham, dress, 27-inch	do	.266	.250	.251	.251	.249	.259	.258	.243	.242	.241	.244	.268	.264	.265	.254	.258	.260	.244
Gingham, dress, 32-inch	do	.545	.548	.524	.518	.501	.461	.519	.502	.514	.473	.465	.415	.618	.671	.551	.543	.494	.520
Muslin, bleached	do	.204	.203	.201	.203	.206	.237	.263	.219	.219	.232	.225	.238	.233	.228	.229	.226	.228	.230
Sheeting, bleached, 9–4	do	.552	.659	.651	.672	.632	.691	.664	.681	.650	.708	.682	.707	.624	.622	.614	.666	.659	.656
Sheets, bleached, 81 by 90	Each	1.627	1.635	1.611	1.740	1.661	1.723	1.734	1.760	1.744	1.763	1.530	1.736	1.639	1.682	1.639	1.741	1.670	1.709
Outing flannel, 27 to 28 inch	Yard	.209	.191	.190	.190	.185	.240	.280	.201	.193	.224	.234	.221	.220	.198	.203	.206	.215	.221
Flannel, white, wool, 27-inch	do	.875	.875	.875	.870	.870	.990	.....	.850	.850	1.000	.750	.750	.....	.720	1.115	.948	.990	.990
Blankets, cotton, 66 by 80	Pair	4.857	4.945	4.900	4.506	4.459	4.326	5.032	4.368	4.533	4.411	4.353	4.184	5.098	4.992	4.634	4.509	4.542	4.703
		Mobile, Ala.						**Newark, N. J.**						**New Haven, Conn.**					
Calico, 24 to 25 inch	Yard	$0.150	$0.150	$0.144	$0.148	$0.146	$0.153	$0.125	$0.100	$0.104	$0.100	$0.102	$0.107	$0.144	$0.136	$0.125	$0.125	$0.125	$0.125
Percale	do	.244	.256	.239	.239	.239	.260	.303	.277	.283	.277	.293	.283	.255	.236	.239	.248	.254	.260
Gingham, apron, 27 to 28 inch	do	.158	.150	.145	.150	.150	.150	.183	.163	.150	.150	.158	.164	.177	.168	.154	.159	.159	.164
Gingham, dress, 27-inch	do	.221	.220	.209	.212	.212	.221	.243	.236	.234	.241	.236	.236	.263	.240	.235	.239	.233	.232
Gingham, dress, 32-inch	do	.398	.476	.415	.421	.397	.440	.508	.504	.500	.554	.502	.456	.459	.439	.499	.498	.454	.424
Muslin, bleached	do	.219	.213	.197	.198	.202	.198	.219	.218	.203	.231	.234	.231	.221	.210	.211	.222	.220	.226
Sheeting, bleached, 9–4	do	.590	.620	.620	.568	.593	.624	.670	.670	.665	.745	.745	.745	.675	.647	.634	.671	.648	.628
Sheets, bleached, 81 by 90	Each	1.570	1.570	1.461	1.517	1.493	1.556	1.809	1.769	1.769	1.824	1.841	1.768	1.552	1.512	1.518	1.608	1.563	1.572
Outing flannel, 27 to 28 inch	Yard	.226	.225	.193	.188	.188	.201	.245	.228	.218	.222	.225	.237	.263	.213	.211	.219	.218	.219
Flannel, white, wool, 27-inch	do	.590	.763	.857	.890	.785	.910	1.140	1.068	1.053	1.020	1.062	1.083	.810	.838	.800	.875	.857	.837
Blankets, cotton, 66 by 80	Pair	4.979	4.858	4.841	4.428	4.464	4.281	4.760	4.521	4.558	5.125	4.536	4.042	4.634	4.496	4.365	4.457	4.643	4.583

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON FEBRUARY 15, MAY 15, AND AUGUST 15, 1921, AND ON MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922—Continued.

Article.	Unit.	New Orleans, La.						New York, N. Y.						Norfolk, Va.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	$0.150	$0.131	$0.131	$0.117	$0.134	$0.125	$0.173	$0.125	$0.132	$0.140	$0.144	$0.136	$0.150	.....	$0.150	$0.139	$0.144	$0.138
Percale	do	.226	.226	.215	.213	.200	.220	.284	.254	.253	.261	.265	.264	.273	$0.258	.240	.246	.256	.260
Gingham, apron, 27 to 28 inch	do	.180	.170	.150	.150	.150	.167	.181	.152	.155	.166	.176	.179	.183	.175	.175	.182	.178	.176
Gingham, dress, 27-inch	do	.220	.224	.216	.215	.215	.223	.262	.262	.249	.257	.242	.241	.243	.244	.241	.242	.243	.243
Gingham, dress, 32-inch	do	.637	.598	.499	.466	.437	.405	.628	.588	.541	.515	.492	.473	.455	.455	.461	.455	.461	.442
Muslin, bleached	do	.192	.178	.174	.170	.172	.188	.230	.213	.210	.220	.216	.224	.245	.216	.205	.216	.218	.222
Sheeting, bleached, 9–4	do	.557	.508	.482	513	.523	.535	.682	.644	.650	.697	.685	.700	.701	.677	.664	.691	.676	.679
Sheets, bleached, 81 by 90	Each	1.695	1.407	1.319	1.434	1.409	1.461	1.626	1.593	1.611	1.711	1.715	1.636	1.699	1.685	1.647	1.686	1.603	1.676
Outing flannel, 27 to 28 inch	Yard	.184	.184	.182	.179	.179	.175	.263	.223	.227	.218	.204	.219	.249	.231	.190	.196	.196	.215
Flannel, white, wool, 27-inch	do	.....	.....	.750	.750	.750	.750	.979	.991	1.008	.930	.915	.976	1.035	1.025	1.035	1.058	1.078	1.108
Blankets, cotton, 66 by 80	Pair	5.130	.....	4.415	.....	.....	4.085	5.462	4.517	4.483	4.130	4.146	4.075	5.143	.....	3.317	3.500	.....	4.317

Article.	Unit.	Omaha, Nebr.						Peoria, Ill.						Philadelphia, Pa.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	$0.142	$0.127	$0.141	$0.149	$0.151	$0.141	.....	$0.125	$0.125	$0.108	$0.113	$0.100	$0.176	$0.119	$0.119	$0.121	$0.119	.....
Percale	do	.286	.276	.259	.290	.283	.264	$0.250	.240	.292	.251	.245	.266	.253	.251	.251	.263	.257	$0.251
Gingham, apron, 27 to 28 inch	do	.185	.182	.173	.189	.183	.180	.167	.156	.164	.176	.176	.178	.169	.161	.164	.168	.168	.170
Gingham, dress, 27-inch	do	.268	.252	.259	.263	.259	.259	.241	.249	.262	.250	.246	.258	.216	.221	.236	.243	.237	.225
Gingham, dress, 32-inch	do	.581	.529	.509	.533	.485	.466	.565	.522	.544	.548	.473	.450	.499	.526	.531	.530	.455	.453
Muslin, bleached	do	.232	.204	.212	.219	.226	.234	.221	.213	.203	.225	.227	.241	.238	.231	.226	.232	.231	.237
Sheeting, bleached, 9–4	do	.741	.720	.722	.744	.726	.727	.630	.687	.680	.734	.762	.760	.676	.657	.654	.714	.682	.664
Sheets, bleached, 81 by 90	Each	1.725	1.696	1.713	1.864	1.747	1.776	1.673	1.619	1.658	1.741	1.837	1.782	1.623	1.581	1.555	1.625	1.583	1.554
Outing flannel, 27 to 28 inch	Yard	.256	.215	.207	.218	.220	.228	.246	.226	.240	.213	.217	.227	.223	.203	.193	.216	.214	.216
Flannel, white, wool, 27-inch	do	1.250	1.210	1.070	1.130	1.214	1.192	.....	.....	.950	1.250	.....	1.250	1.101	1.068	1.020	1.052	1.028	1.124
Blankets, cotton, 66 by 80	Pair	4.707	4.382	4.663	4.705	4.264	3.984	5.313	4.626	4.152	4.353	4.292	4.456	4.664	3.737	4.174	4.328	4.271	4.601

		Pittsburgh, Pa.						Portland, Me.						Portland, Oreg.					
Calico, 24 to 25 inch	Yard	$0.156	$0.144	$0.148	$0.133	$0.135	$0.138	.....	.....	.....	$0.125	.....	$0.125	$0.138	$0.135	$0.135	$0.135	$0.135	$0.129
Percale	do	.279	.265	.255	.251	.233	.233	$0.235	$0.250	$0.258	.246	$0.242	.273	.336	.329	.293	.286	.286	.307
Gingham, apron, 27 to 28 inch	do	.178	.172	.149	.162	.166	.171	.190	.190	.190	.190	.190	.210	.183	.178	.178	.161	.167	.167
Gingham, dress, 27-inch	do	.239	.229	.236	.238	.240	.244	.245	.250	.250	.250	.253	.248	.243	.245	.243	.238	.239	.242
Gingham, dress, 32-inch	do	.551	.563	.528	.498	.447	.433	.493	.521	.507	.494	.446	.464	.527	.561	.567	.558	.553	.541
Muslin, bleached	do	.219	.201	.203	.221	.205	.221	.224	.206	.218	.218	.212	.210	.238	.239	.228	.235	.238	.235
Sheeting, bleached, 9-4	do	.674	.640	.632	.664	.670	.704	.651	.674	.639	.680	.651	.660	.646	.633	.650	.652	.669	.666
Sheets, bleached, 81 by 90	Each	1,692	1,703	1,623	1,623	1,538	1,436	1,602	1,649	1,671	1,688	1,594	1,551	1,760	1,753	1,769	1,756	1,821	1,812
Outing flannel, 27 to 28 inch	Yard	.257	.205	.193	.194	.208	.214	.270	.247	.239	.217	.212	.236	.244	.222	.207	.218	.215	.231
Flannel, white, wool, 27-inch	do	1,000	.813	.865	.772	.791	.950	1,445	.935	.865	.985	.985	1,088	1,133	1,217	1,133	1,100	.925	1.033
Blankets, cotton, 66 by 80	Pair	3.450	4.350	3.897	3.600	.....	4.183	4.347	4.058	4.060	4.273	3.886	4.200	5.144	4.748	4.748	4.495	4.271	4.521

		Providence, R. I.						Richmond, Va.						Rochester, N. Y.					
Calico, 24 to 25 inch	Yard	$0.135	$0.125	$0.129	$0.143	.....	.....	$0.145	$0.162	$0.159	$0.127	$0.133	$0.133	$0.138	$0.125	$0.143	$0.143	$0.134	$0.140
Percale	do	.250	.241	.229	.232	$0.245	$0.248	.257	.252	.234	.243	.246	.246	.280	.260	.246	.257	.258	.239
Gingham, apron, 27 to 28 inch	do	.178	.160	.194	.174	.173	.174	.156	.157	.150	.178	.175	.175	.164	.156	.154	.163	.163	.165
Gingham, dress, 27-inch	do	.252	.217	.228	.240	.235	.226	.244	.236	.230	.239	.243	.246	.251	.242	.234	.230	.221	.221
Gingham, dress, 32-inch	do	.456	.457	.474	.453	.408	.407	.409	.468	.469	.482	.447	.413	.562	.589	.579	.531	.514	.472
Muslin, bleached	do	.193	.200	.204	.212	.217	.218	.225	.222	.228	.210	.210	.220	.214	.201	.198	.209	.205	.211
Sheeting, bleached, 9-4	do	.633	.613	.607	.666	.643	.637	.652	.647	.639	.703	.663	.635	.621	.637	.634	.647	.631	.626
Sheets, bleached, 81 by 90	Each	1,528	1,593	1,621	1,717	1,537	1,545	1,615	1,594	1,528	1,675	1,625	1,632	1,773	1,748	1.795	1,815	1,659	1,710
Outing flannel, 27 to 28 inch	Yard	.245	.241	.236	.235	.233	.219	.251	.219	.200	.200	.201	.207	.253	.233	.221	.203	.205	.203
Flannel, white, wool, 27-inch	do	.980	.940	.893	.888	.980	1.020	.913	.906	.897	.876	.864	.923	1.173	1.125	1.115	1.115	1.016	.935
Blankets, cotton, 66 by 80	Pair	4.550	4.613	4.519	4.717	4.516	4.433	5.229	5.274	4.264	4.398	3.788	4.137	5.920	4.566	5.050	4.432	4.450	4.243

		St. Louis, Mo.						St. Paul, Minn.						Salt Lake City, Utah.					
Calico, 24 to 25 inch	Yard	$0.131	$0.144	$0.120	$0.150	$0.150	$0.142	$0.156	$0.128	$0.131	$0.128	$0.128	$0.125	$0.144	$0.132	$0.134	$0.144	$0.144	$0.150
Percale	do	.262	.273	.248	.269	.241	.254	.251	.262	.256	.261	.253	.255	.299	.285	.289	.300	.305	.315
Gingham, apron, 27 to 28 inch	do	.154	.149	.149	.169	.166	.164	.163	.158	.164	.163	.166	.168	.154	.150	.161	.169	.154	.172
Gingham, dress, 27-inch	do	.238	.243	.238	.256	.262	.248	.242	.244	.240	.243	.251	.251	.238	.247	.257	.275	.275	.275
Gingham, dress, 32-inch	do	.593	.508	.502	.517	.503	.519	.503	.530	.502	.463	.489	.506	.494	.558	.550	.517	.521	.519
Muslin, bleached	do	.208	.203	.197	.201	.195	.205	.217	.227	.212	.225	.215	.217	.240	.218	.232	.230	.220	.233
Sheeting, bleached, 9-4	do	.670	.652	.650	.711	.668	.659	.632	.643	.636	.699	.648	.650	.833	.741	.730	.749	.756	.744
Sheets, bleached, 81 by 90	Each	1.729	1.627	1.607	1.601	1.629	1.601	1.631	1.686	1.629	1.712	1.683	1.697	1.844	1.864	1.771	1.834	1.816	1.787
Outing flannel, 27 to 28 inch	Yard	.238	.220	.215	.198	.190	.177	.242	.201	.201	.202	.201	.206	.291	.241	.240	.234	.232	.239
Flannel, white, wool, 27-inch	do	.985	.960	.848	.....	.....	.....	.980	.....	.....	.975	.975	.750	.....	1.217	.820	.717	.900	1.021
Blankets, cotton, 66 by 80	Pair	4.916	4.628	4.511	4.385	4.365	4.511	5.346	5.393	4.838	4.501	4.758	4.598	4.984	4.987	5.490	4.774	4.631	4.916

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON FEBRUARY 15, MAY 15, AND AUGUST 15, 1921, AND ON MARCH 15, JUNE 15, AND SEPTEMBER 15, 1922—Concluded.

Article.	Unit.	San Francisco, Calif.						Savannah, Ga.						Scranton, Pa.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	.....	$0.100	$0.100	.....	.....	.....	.....	.....	.....	.....	.....	.....	$0.150	$0.125	$0.125	$0.121	$0.122	$0.125
Percale	do	$0.372	.337	.322	$0.329	$0.301	$0.287	$0.257	$0.257	$0.230	$0.263	$0.245	$0.260	.290	.250	.247	.247	.241	.244
Gingham, apron, 27 to 28 inch	do	.175	.175	.150	.165	.190	.250	.158	.150	.150	.175	.172	.167	.161	.159	.158	.169	.175	.167
Gingham, dress, 27-inch	do	.254	.259	.258	.261	.247	.264	.247	.243	.248	.252	.268	.264	.250	.246	.242	.248	.255	.246
Gingham, dress, 32-inch	do	.581	.600	.578	.571	.527	.518	.460	.503	.538	.494	.486	.464	.470	.548	.492	.484	.490	.467
Muslin, bleached	do	.235	.240	.225	.222	.225	.225	.243	.199	.209	.223	.222	.229	.252	.229	.219	.220	.236	.231
Sheeting, bleached, 9–4	do	.725	.687	.687	.775	.735	.725	.620	.608	.520	.699	.713	.697	.695	.705	.679	.758	.745	.689
Sheets, bleached, 81 by 90	Each	1.957	1.782	1.768	1.846	1.693	1.675	1.630	1.370	1.401	1.671	1.723	1.662	1.856	1.756	1.783	1.809	1.828	1.760
Outing flannel, 27 to 28 inch	Yard	.323	.269	.254	.243	.249	.249	.246	.209	.211	.201	.206	.205	.236	.211	.191	.215	.215	.214
Flannel, white, wool, 27-inch	do	1.625	1.250	1.750	1.125	1.125	1.125	.....	.....	.890	.785	.785	.785	.990	.865	.845	.903	.928	.938
Blankets, cotton, 66 by 80	Pair	5.920	5.104	5.073	4.955	.....	4.383	4.500	.....	3.750	.....	.....	.....	4.707	3.990	4.559	4.671	4.238	4.301

Article.	Unit.	Seattle, Wash.						Springfield, Ill.						Washington, D. C.					
		1921			1922			1921			1922			1921			1922		
		Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.	Feb. 15.	May 15.	Aug. 15.	Mar. 15.	June 15.	Sept. 15.
Calico, 24 to 25 inch	Yard	$1.150	$0.145	$0.130	$0.117	$0.117	$0.140	$0.136	$0.134	$0.126	$0.124	$0.115	$0.127	$0.170	$0.160	$0.160	$0.160	.....	.....
Percale	do	.317	.283	.275	.279	.279	.295	.264	.258	.249	.244	.245	.251	.267	.277	.267	.270	$0.255	$0.271
Gingham, apron, 27 to 28 inch	do	.192	.192	.196	.183	.190	.180	.173	.168	.168	.171	.166	.165	.179	.170	.168	.165	.173	.169
Gingham, dress, 27-inch	do	.259	.244	.242	.245	.239	.239	.228	.253	.259	.248	.244	.248	.263	.255	.261	.275	.268	.249
Gingham, dress, 32-inch	do	.543	.537	.555	.540	.533	.564	.435	.411	.399	.411	.396	.413	.511	.498	.498	.498	.465	.458
Muslin, bleached	do	.251	.235	.237	.245	.235	.242	.228	.199	.206	.200	.196	.205	.213	.214	.204	.201	.203	.203
Sheeting, bleached, 9–4	do	.708	.708	.704	.753	.710	.714	.605	.653	.646	.659	.672	.615	.683	.669	.675	.702	.662	.693
Sheets, bleached, 81 by 90	Each	1.800	1.785	1.840	1.883	1.800	1.810	1.752	1.617	1.589	1.706	1.594	1.611	1.652	1.598	1.624	1.625	1.630	1.672
Outing flannel, 27 to 28 inch	Yard	.263	.237	.236	.241	.235	.247	.233	.221	.211	.227	.215	.188	.246	.198	.192	.202	.202	.198
Flannel, white, wool, 27-inch	do	1.225	1.288	1.138	1.138	1.075	1.050	.750	.750	.575	.750	.725	.783	.875	.826	.796	.980	.997	1.054
Blankets, cotton, 66 by 80	Pair	4.700	4.479	4.700	4.707	4.707	4.450	4.917	4.203	4.069	4.108	4.085	3.958	5.592	5.403	5.065	4.562	4.296	3.955

Index Numbers of Wholesale Prices in September.

THE September level of wholesale prices was slightly below that of August, according to information gathered in leading markets of the country by the U. S. Department of Labor through the Bureau of Labor Statistics. Measured by the bureau's weighted index number, which includes 404 commodities or price series, there was a decrease from August to September of 1⅓ per cent, or from 155 to 153.

Farm products, owing to advances in grain, cattle, hogs, lambs, poultry, eggs, and wool, showed an increase of 1½ per cent over the August level. Cloths and clothing increased 1 per cent, chemicals and drugs 1½ per cent, building materials 4½ per cent, and metals and metal products 6¼ per cent in average price in the period stated. In the group of miscellaneous commodities there was an increase of less than 1 per cent.

On the other hand, a decrease of approximately 10 per cent took place in the important group of fuel and lighting materials, due to decreases in bituminous coal and coke. No change in the general price level was reported for foods and for house-furnishing goods.

The considerable increase shown for building materials and for metals and metal products is due largely to advances in structural steel and other articles included in both groups of commodities. Similarly, the inclusion of eggs in the group of farm products as well as in that of foodstuffs, with the recent steep increases in the price of eggs, accounts in large measure for the rise in the former group and the failure of the latter group to decline in the face of falling price of flour and potatoes. However, such instances of duplication do not affect the general index number of all commodities since, in computing the final result, no commodity is counted more than once.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES

(1913=100.)

Commodity group.	1921	1922	
	September.	August.	September.
Farm products	124	131	133
Foods	142	138	138
Cloths and clothing	178	181	183
Fuel and lighting	181	271	244
Metals and metal products	116	126	134
Building materials	156	172	180
Chemicals and drugs	131	122	124
House-furnishing goods	179	173	173
Miscellaneous	118	115	116
All commodities	141	155	153

Comparing prices in September with those of a year ago, as measured by changes in the index numbers, it is seen that the general level rose 8½ per cent. Fuel and lighting materials showed by far the largest increase, 34¾ per cent. Building materials and metals and metal products increased approximately 15½ per cent, farm products 7¼ per cent, and cloths and clothing 2¾ per cent in price in the year. Food items, chemicals and drugs, house-furnishing goods, and miscellaneous commodities all showed decreases compared with prices in the corresponding month of last year.

Wholesale Prices of Commodities, July to September, 1922.

IN CONTINUATION of information first published in the MONTHLY LABOR REVIEW for May, 1922, there are presented herewith the average prices in July, August, and September of the commodities included in the revised series of index numbers of wholesale prices constructed by the Bureau of Labor Statistics. For convenience of comparison with pre-war prices, index numbers based on average prices in the year 1913 as 100 are shown in addition to the statement of absolute money prices.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922.

Commodity.	Average prices.			Index numbers. (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Farm products.						
(*a*) Grains:						
Barley, malting, per bushel, Chicago	$0.641	$0.568	$0.590	102.6	90.8	94.4
Corn, per bushel, Chicago—						
Contract grades	.643	.622	.635	102.8	99.5	101.6
No. 3 mixed	.637	.617	.627	103.4	100.3	101.9
Oats, contract grades, per bushel, Chicago	.371	.335	.384	98.6	89.0	102.1
Rye, No. 2, per bushel, Chicago	.858	.723	.715	134.9	113.6	112.3
Wheat, per bushel—						
No. 1, northern spring, Chicago	1.292	1.178	1.129	141.5	129.0	123.7
No. 2, red winter, Chicago	1.152	1.057	1.071	116.8	107.1	108.5
No. 2, hard winter, Kansas City	1.196	1.055	1.056	136.4	120.3	120.5
No. 1, northern spring, Minneapolis	1.423	1.186	1.085	162.8	135.8	124.2
No. 1, hard white, Portland, Oreg	1.245	1.126	1.165	134.0	121.2	125.4
(*b*) Live stock and poultry:						
Cattle, steers, per 100 pounds, Chicago—						
Choice to prime	10.310	10.650	11.275	115.5	119.3	126.3
Good to choice	9.700	10.375	10.713	114.0	122.0	125.9
Hogs, per 100 pounds, Chicago—						
Heavy	10.090	8.688	9.169	120.6	103.9	109.6
Light	10.695	9.656	9.694	126.5	114.2	114.7
Sheep, per 100 pounds, Chicago—						
Ewes, native, all grades	5.475	5.344	4.938	116.8	114.0	105.3
Lambs, western, good to choice	12.735	12.438	13.031	163.4	159.6	167.2
Wethers, fed, good to choice	6.150	6.500	6.281	115.0	121.6	117.5
Poultry, live fowls, per pound—						
Chicago	.230	.180	.185	149.3	116.8	120.1
New York	.268	.250	.288	159.8	149.3	172.0
(*c*) Other farm products:						
Beans, medium, choice, per 100 pounds, New York	10.313	9.750	(1)	258.5	244.4	.....
Clover seed, contract grades, per 100 pounds, Chicago	18.000	16.220	16.420	109.0	98.2	99.4
Cotton, middling, per pound—						
New Orleans	.221	.216	.209	173.7	170.3	164.4
New York	.223	.219	.215	174.6	171.1	167.9
Cotton seed, per ton, average price at gin	36.920	32.440	25.370	169.4	148.9	116.4
Eggs, fresh, per dozen—						
Firsts, western, Boston	.238	.252	.375	94.4	100.0	149.1
Firsts, Chicago	.213	.220	.292	94.1	97.4	129.3
Extra firsts, Cincinnati	.236	.256	.360	105.3	114.4	160.9
Candled, New Orleans	.205	.273	.293	87.5	116.5	124.8
Firsts, New York	.252	.255	.381	101.2	102.2	153.1
Extra firsts, western, Philadelphia	.261	.266	.391	99.1	101.0	148.3
Extra pullets, San Francisco	.241	.267	.361	90.1	99.7	134.9
Flaxseed, No. 1, per bushel, Minneapolis	2.596	2.341	2.251	192.5	173.5	166.8
Hay, per ton—						
Alfalfa, No. 1, Kansas City	15.700	16.000	18.400	110.7	112.8	129.7
Clover, mixed, No. 1, Cincinnati	15.625	14.900	13.938	100.3	95.6	89.4
Timothy, No. 1, Chicago	24.200	21.500	20.375	151.0	134.1	127.1
Hides and skins, per pound—						
Calfskins, No. 1, country, Chicago	.186	.182	.183	98.8	96.5	97.1
Goatskins, Brazilian, New York	.825	.875	.961	116.1	123.0	135.2
Hides, heavy, country cows, No. 1, Chicago	.124	.134	.139	82.4	88.8	92.4
Hides, packers, heavy, native steers, Chicago	.182	.201	.213	98.9	109.0	115.6
Hides, packers, heavy, Texas steers, Chicago	.168	.185	.194	92.6	102.3	107.1
Hops, prime to choice, per pound—						
New York State, New York	.225	.213	.224	84.5	80.0	84.0
Pacifics, Portland, Oreg	.133	.135	.110	77.1	78.5	64.0

[1] No quotation.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Farm products—Concluded.						
(c) Other farm products—Concluded.						
Milk, fresh, per quart—						
Chicago (vicinity)	$0.043	$0.044	$0.043	114.3	117.2	114.3
New York (vicinity)	.054	.064	.069	153.0	181.3	194.1
San Francisco (vicinity)	.061	.061	.061	155.4	155.4	155.4
Onions, yellow, per 100 pounds, Chicago	3.605	2.458	1.391	229.2	156.3	88.4
Peanuts, No. 1, per pound, Norfolk, Va	.036	.036	.036	100.3	100.3	100.3
Potatoes—						
White, good to choice, per 100 pounds, Chicago	2.094	1.465	1.225	204.5	143.1	119.7
Sweet, No. 1, per five-eighths bushel, Philadelphia	(2)	.938	.550	.....	194.3	114.0
Rice, per pound, New Orleans—						
Blue Rose, head, clean	.048	.047	.047	(3)	(3)	(3)
Honduras, head, clean	.062	.063	.063	122.1	123.9	124.5
Tobacco, Burley, good leaf, dark red, per 100 pounds, Louisville, Ky	27.500	27.500	27.500	208.3	208.3	208.3
Wool, Ohio, per pound, Boston—						
Fine clothing, scoured	1.297	1.270	1.297	210.1	205.8	210.1
Fine delaine, scoured	1.357	1.310	1.310	247.0	238.4	238.4
Half blood, scoured	1.130	1.109	1.130	227.3	222.9	227.3
One-fourth and three-eighths grades, scoured	.818	.818	.836	170.9	170.9	174.8
Foods.						
(a) Meats:						
Beef, fresh, per pound—						
Carcass, good native steers, Chicago	.148	.155	.155	113.9	119.7	119.7
Sides, native, New York	.146.	.136	.145.	116.3	108.6	115.8
Beef, salt, extra mess, per barrel (200 pounds), New York	13.688	12.200	12.000	72.3	64.5	63.4
Hams, smoked, per pound, Chicago	.301	.264	.235	181.0	158.8	141.4
Lamb, dressed, per pound, Chicago	.248	.235	.233	166.4	158.0	156.7
Mutton, dressed, per pound, New York	.116	.113	.114	113.5	110.2	111.0
Pork, fresh, per pound—						
Loins, Chicago	.238	.256	.284	159.8	172.5	191.1
Loins, western, New York	.233	.243	.279	152.7	159.2	183.2
Pork, cured—						
Mess, salt, per barrel (200 pounds), New York	29.813	27.700	27.063	132.7	123.3	120.4
Sides, rough, per pound, Chicago	.144	.132	.126	116.6	106.6	102.2
Sides, short, clear, per pound, Chicago	.149	.139	.135	116.8	108.9	105.7
Poultry, dressed, per pound—						
Hens, heavy, Chicago	.240	.238	.244	166.0	164.6	168.6
Fowls, 48–56 pounds to dozen, New York	.258	.265	.280	141.2	145.3	153.5
Veal, dressed, good to prime, per pound, New York	.300	.300	.300	165.9	165.9	165.9
(b) Butter, cheese, and milk:						
Butter, creamery, extra, per pound—						
Boston	.365	.360	.405	115.1	113.5	127.7
Chicago	.343	.339	.388	110.5	109.3	124.8
Cincinnati[4]	.388	.328	.353	111.7	(3)	(3)
New Orleans	.408	.388	.403	121.2	115.4	119.8
New York	.361	.352	.408	112.0	109.1	126.4
Philadelphia	.371	.364	.421	113.9	111.6	129.2
St. Louis	353	.341	.394	114.1	110.4	127.5
San Francisco	.428	.431	.491	134.8	135.9	154.9
Cheese, whole milk, per pound—						
American twins, Chicago	.188	.186	.208	132.8	131.1	146.3
State, fresh flats, colored, average, New York	.205	.201	.224	133.2	130.4	145.2
California flats, fancy, San Francisco	.214	.223	.258	134.1	139.9	161.5
Milk, fresh. (See Farm products.)						
Milk, condensed, case of 48 14-ounce tins, New York	4.925	5.150	5.288	104.8	109.6	112.5
Milk, evaporated, case of 48 16-ounce tins, New York	3.906	3.990	4.088	110.5	112.9	115.6
(c) Other foods:						
Beans, medium, choice. (See Farm products.)						
Bread, per pound—						
Chicago	.076	.076	.076	177.0	177.0	177.0
Cincinnati	.062	.062	.062	174.7	174.7	174.7
New Orleans	.058	.058	.058	190.8	190.8	190.8
New York	.074	.074	.074	174.1	174.1	174.1
San Francisco	.061	.064	.069	151.3	159.0	173.0
Cocoa, beans, Arriba, per pound, New York	.119	.122	.119	77.8	79.4	77.9
Coffee, Rio, No. 7, per pound, New York	.104	.100	.102	93.5	89.8	91.6
Copra, South Sea, sun dried, per pound, New York	.045	.045	.444	43.2	43.2	42.2
Eggs, fresh, dozen. (See Farm products.)						

[2] No comparable quotation. [3] No 1913 base price. [4] As to score.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers. (1913 =100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Foods—Concluded.						
(c) Other foods—Concluded:						
Fish—						
Cod, large, shore, pickled cured, per 100 pounds, Gloucester, Mass	$06.500	$06.500	$07.000	96.9	96.9	104.4
Herring, large, split, per barrel (180–190 pounds), New York	7.500	7.500	7.500	113.2	113.2	113.2
Mackerel, salt, large, 3s, per barrel, Boston	13.860	12.870	12.870	124.9	116.0	116.0
Salmon, canned, Alaska, red, per dozen, factory	2.400	2.325	(1)	164.3	159.2	.....
Flour, rye, white, per barrel, Minneapolis	5.088	4.535	4.481	162.9	145.2	143.5
Flour, wheat, per barrel—						
Winter patents, Kansas City	6.985	6.219	6.110	174.1	155.0	152.3
Winter straights, Kansas City	6.235	5.525	5.360	162.1	143.6	139.3
Standard patents, Minneapolis	7.788	6.995	6.344	169.9	152.6	138.4
Second patents, Minneapolis	7.438	6.710	6.160	168.2	151.7	137.9
Patents, Portland, Oreg	7.960	7.447	7.164	177.1	165.6	159.4
Patents, soft, winter, St. Louis	6.270	5.581	5.545	137.3	122.2	121.4
Straights, soft, winter, St. Louis	5.470	5.025	4.990	128.6	118.2	117.3
Patents, Toledo	5.565	5.388	5.355	117.8	114.0	113.3
Fruit, canned, per case, New York—						
Peaches, California, standard 2½s	1.975	1.975	1.975	130.2	130.2	130.2
Pineapple, Hawaiian, sliced, standard 2½s	3.800	3.620	3.500	185.1	176.3	170.5
Fruit, dried, per pound, New York—						
Apples, evaporated, State, choice	.181	.181	.180	252.5	252.1	250.7
Currants, uncleaned, barrels	.130	.130	.133	190.1	190.1	193.7
Prunes, California, 60–70s	.123	.129	.124	187.2	196.3	188.7
Raisins, coast, seeded, bulk	.122	.122	.118	167.9	168.1	161.9
Fruit, fresh—						
Apples, Baldwins, per barrel, Chicago	(1)	(1)	(1)	.....	.....	.....
Bananas, Jamaica, 9s, per bunch, New York	2.335	1.595	2.035	151.8	103.7	132.4
Lemons, California, (300–360 count), per box, Chicago	4.813	4.300	6.500	83.4	74.5	112.6
Oranges, California, choice, per box, Chicago	10.125	10.450	10.438	229.1	236.4	236.2
Glucose, 42°, mixing, per 100 pounds, New York	2.833	2.820	2.820	132.5	131.9	131.9
Hominy grits, bulk, car lots, per 100 pounds, f. o. b. mill	1.320	1.280	1.260	80.0	77.5	76.3
Lard, prime, contract, per pound, New York	.117	.113	.113	106.4	102.7	102.5
Meal, corn, per 100 pounds—						
White, f. o. b. Decatur, Ill	1.270	1.230	1.210	79.3	76.8	75.6
Yellow, Philadelphia	1.750	1.850	1.850	122.1	129.1	129.1
Molasses, New Orleans, fancy, per gallon, New York	.410	.457	.475	107.6	119.9	124.8
Oatmeal, car lots, in barrels (180 pounds), per hundredweight, New York	3.177	3.012	3.070	128.4	121.7	124.0
Oleomargarine, standard, uncolored, per pound, Chicago	.182	.185	.185	112.1	113.8	113.8
Oleo oil, extra, per pound, Chicago	.107	.114	.108	92.6	98.6	93.8
Pepper, black, Singapore, per pound, New York	.100	.099	.099	92.4	91.1	91.1
Rice. (See Farm products.)						
Salt, American, medium, per barrel (280 pounds), Chicago	2.390	2.390	2.390	234.3	234.3	234.3
Sugar, per pound, New York—						
Granulated, in barrels	.067	.067	.063	153.9	157.6	146.4
Raw, 96° centrifugal	.052	.052	.048	147.1	147.7	137.7
Tallow, edible, per pound, Chicago	.078	.080	.076	97.4	100.5	94.9
Tea, Formosa, fine, per pound, New York	.300	.300	.305	120.8	120.8	122.8
Vegetables, canned—						
Corn, Maryland style, per dozen, New York	.850	.800	.788	134.0	126.1	124.1
Peas, State and western, No. 5, per dozen, New York	1.425	1.425	1.363	164.4	164.4	157.3
Tomatoes, New Jersey, standard, No. 3, per dozen, New York	1.400	1.350	1.500	107.7	103.8	115.4
Vegetables, fresh. (See Farm products.)						
Vegetable oil—						
Coconut, crude, per pound, Pacific coast	.083	.083	.081	68.8	68.8	67.1
Corn, crude, in barrels, per pound, New York	.105	.097	.092	172.5	159.3	151.9
Cottonseed, prime, summer, yellow, per pound, New York	.107	.099	.085	147.4	136.3	117.2
Olive, edible, in barrels, per gallon, New York	1.800	1.800	1.800	106.6	106.6	106.6
Peanut, crude, per pound, f. o. b. mill	.099	.090	.087	(3)	(3)	(3)
Soya bean, crude, in barrels, per pound, New York	.122	.125	.119	199.2	204.3	194.1
Vinegar, cider, 40 grain, in barrels, per gallon, New York	.280	.280	.280	250.8	250.8	250.8

[1] No quotation.

[3] No 1913 base price.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Cloths and clothing.						
(a) Boots and shoes, per pair, factory:						
Children's—						
Little boys', gun metal, blucher	$1.615	$1.615	$1.615	166.5	166.5	166.5
Child's, gun metal, polish, high cut	1.568	1.568	1.568	181.7	181.7	181.7
Misses', black, vici, polish, high cut	1.853	1.853	1.853	173.2	173.2	173.2
Youths', gun metal, blucher	1.473	1.473	1.473	143.4	143.4	143.4
Men's—						
Black, calf, blucher	6.500	6.500	6.395	208.8	208.8	205.4
Black, calf, Goodyear welt, bal	4.500	4.500	4.792	142.1	142.1	151.3
Black, dress, Goodyear welt, side leather	2.900	2.900	3.108	129.6	129.6	138.9
Gun metal, Goodyear welt, blucher	4.500	4.513	4.600	230.2	230.8	235.3
Mahogany, chrome, side, Goodyear welt, bal	3.476	3.500	3.500	215.5	217.1	217.1
Tan, dress, Goodyear welt, calf	4.600	4.600	4.808	145.3	145.3	151.8
Tan, dress, Goodyear welt, side leather	3.250	3.250	3.333	145.3	145.3	149.0
Tan, grain, blucher	1.645	1.645	1.645	122.2	122.2	122.2
Vici kid, black, Goodyear welt	5.750	5.750	5.750	200.6	200.6	200.6
Women's—						
Black, kid, Goodyear welt, 8½-inch, lace	4.150	4.150	4.233	138.3	138.3	141.1
Colored, calf, Goodyear welt, lace, oxford	4.000	4.000	4.000	183.9	183.9	183.9
Kid, black, McKay sewed, lace, oxford	3.350	3.350	3.350	224.9	224.9	224.9
Patent leather pump, McKay sewed	3.600	3.600	3.600	261.8	261.8	261.8
(b) Cotton goods:						
Denims, Massachusetts, 2.20 yards to the pound, per yard, New York	.196	.198	.206	152.4	154.3	160.1
Drillings, brown, per yard, New York—						
Massachusetts D standard, 30-inch	.135	.139	.146	163.0	168.3	176.4
Pepperell, 29-inch, 2.85 yards to the pound	.130	.135	.145	158.0	163.7	176.6
Flannels, per yard, New York—						
Colored, 2.75 yards to the pound	.163	.163	.168	160.4	161.0	165.4
Unbleached, 3.80 yards to the pound	.128	.135	.139	173.0	181.9	187.1
Ginghams, per yard—						
Amoskeag, 27-inch, 6.37 yards to the pound, New York	.126	.126	.126	193.9	193.9	193.9
Lancaster, 26½-inch, 6.50 yards to the pound, Boston	.135	.135	.135	218.4	218.4	218.4
Hosiery, per dozen pairs—						
Men's half hose, combed yarn, New York	1.650	1.650	1.650	205.1	205.1	205.1
Women's, cotton, silk mercerized, mock seam, New York	2.720	2.720	2.720	153.7	153.7	153.7
Women's combed yarn, 16-ounce, New York	1.725	1.725	1.725	178.8	178.8	178.8
Muslin, bleached, 4/4, per yard—						
Fruit of the Loom, New York	.166	.166	.176	195.0	195.0	206.1
Lonsdale, factory	.147	.157	.157	182.3	194.1	194.1
Rough Rider, New York	.141	.142	.145	175.4	176.4	180.3
Wamsutta, factory	.265	.265	.265	236.9	236.9	236.9
Print cloth, 27-inch, 7.60 yards to the pound, per yard, Boston	.066	.065	.066	190.7	187.5	190.7
Sheeting, brown, 4/4, per yard—						
Indian Head, 2.85 yards to the pound, Boston	.130	.130	.140	154.4	154.4	166.3
Pepperell, 3.75 yards to the pound, New York	.128	.130	.130	174.8	177.4	177.4
Ware Shoals, 4 yards to the pound, New York	.106	.107	.108	172.0	174.1	175.6
Thread, 6-cord, J. & P. Coats, per spool, New York	.058	.058	.058	148.7	148.7	148.7
Underwear—						
Men's shirts and drawers, per dozen garments, New York	7.500	7.500	7.500	176.5	176.5	176.5
Women's union suits, combed yarn, per dozen, New York	14.000	14.000	14.000	169.7	169.7	169.7
Yarn, per pound, Boston—						
Carded, white, mulespun, northern, 10/1 cones	.378	.387	.373	170.7	174.7	168.4
Carded, white, mulespun, northern, 22/1 cones	.412	.420	.412	166.4	169.5	166.5
Twisted, ordinary, weaving, 20/2	.377	.384	.369	162.2	165.2	158.6
Twisted, ordinary, weaving, 40/2	.568	.578	.566	148.2	150.8	147.8
(c) Woolen goods:						
Flannel, white, 4/4, Ballard Vale, No. 3, per yard, factory	1.000	1.000	1.000	215.8	215.8	215.8
Overcoating, soft faced, black, per yard, Boston	(1)	(1)	(1)	.....	.....	.....
Suitings, per yard—						
Clay worsted, diagonal, 12-ounce, factory	(1)	(1)	(1)	.....	.....	.....
Clay worsted, diagonal, 16-ounce, factory	2.828	2.700	2.700	204.6	195.4	195.4
Middlesex, wool-dyed, blue, 16-ounce, New York	3.060	3.285	3.285	198.1	212.6	212.6
Serge, 11-ounce, factory	2.331	2.250	2.250	206.2	199.0	199.0
Trousering, cotton warp, 11/11½ ounce, per yard, New York	1.600	1.500	1.500	141.4	132.6	132.6

[1] No quotations.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Cloths and clothing—Concluded.						
(c) Woolen goods—Concluded.						
Underwear—						
Merino, shirts and drawers, per dozen garments, factory	$30.500	$30.500	$30.500	155.8	155.8	155.8
Men's union suits, 33 per cent worsted, per dozen, New York	29.400	29.400	29.400	299.5	299.5	299.5
Women's dress goods, per yard—						
Broadcloth, 9½-ounce, 54-56-inch, New York	1.976	1.976	1.976	150.2	150.2	150.2
French serge, 35-inch, factory	.650	.650	.650	197.0	197.0	197.0
Poplar cloth, cotton warp, factory	.325	.325	.325	171.1	171.1	171.1
Silician cloth, cotton warp, 50-inch, New York	.515	.515	.515	159.2	159.2	159.2
Storm serge, double warp, 50-inch, factory	.815	.815	.815	144.9	144.9	144.9
Yarn, per pound—						
Crossbred stock, 2/32s, Boston	1.400	1.400	1.450	180.3	180.3	186.7
Half blood, 2/40s, Philadelphia	2.000	1.950	1.968	179.1	174.7	176.4
Fine domestic, 2/50s, Philadelphia	2.300	2.300	2.318	218.2	218.2	219.9
(d) Silk, etc.:						
Linen shoe thread, 10s, Barbour, per pound, New York	2.077	2.077	2.077	232.6	232.6	232.6
Silk, raw, per pound—						
China, Canton filature, extra extra, New York	7.546	7.487	7.536	215.7	214.0	215.4
Japan, Kansai, No. 1, New York	7.056	7.105	7.644	193.9	195.2	210.0
Japan, special extra extra, New York	7.546	7.595	8.036	185.2	186.5	197.2
Silk yarn, per pound, New York—						
Domestic, gray spun, 60/1	4.361	4.361	4.312	149.5	149.5	147.8
Domestic, gray spun, 60/2, No. 1	5.292	5.292	5.292	152.7	152.7	152.7
Fuel and lighting.						
(a) Anthracite coal, per gross ton, New York, tidewater:						
Broken	(1)	(1)	(1)	.....	.....	.....
Chestnut	(1)	(1)	10.528	.....	.....	198.1
Egg	(1)	(1)	10.440	.....	.....	206.2
Stove	(1)	(1)	10.532	.....	.....	208.1
(b) Bituminous coal:						
Mine run, per net ton, Chicago	(1)	(1)	6.775	.....	.....	(3)
Prepared sizes, per net ton, Chicago	(1)	(1)	7.375	.....	.....	(3)
Screenings, per net ton, Chicago	(1)	(1)	5.775	.....	.....	(3)
Mine run, Kanawha, per net ton, Cincinnati	5.390	6.640	7.390	245.0	301.8	335.9
Mine run, smokeless, New River, per net ton, Cincinnati	5.490	6.490	7.490	227.6	269.0	310.5
Mine run, Pocahontas, per gross ton, Norfolk, Va	6.440	8.000	8.000	214.7	266.7	266.7
Prepared sizes, per net ton, Pittsburgh	6.750	6.500	5.625	(3)	(3)	(3)
(c) Other fuel and lighting:						
Coke, Connellsville, furnace, per net ton, at ovens	10.750	12.800	11.125	440.6	524.7	456.0
Gasoline, motor, per gallon, New York	.270	.250	.250	160.4	148.5	148.5
Matches, average of several brands, per gross, New York	1.540	1.540	1.540	189.7	189.7	189.7
Crude petroleum, at wells, per barrel—						
California, 20°	.998	.630	.630	285.1	180.0	180.0
Kansas-Oklahoma	1.925	1.250	1.250	206.1	133.8	133.8
Pennsylvania	3.313	3.000	3.000	135.2	122.4	122.4
Refined petroleum, per gallon, New York—						
Standard white, 110° fire test	.120	.115	.120	139.0	133.3	139.0
Water white, 150° fire test	.200	.200	.202	162.2	162.2	163.8
Metals and metal products.						
(a) Iron and steel:						
Iron ore, per ton, lower lake ports—						
Mesabi, Bessemer, 55 per cent	5.700	5.700	5.700	137.3	137.3	137.3
Non-Bessemer, 51½ per cent	5.050	5.050	5.050	148.5	148.5	148.5
Pig iron, per gross ton—						
Basic, valley furnace	24.250	26.600	32.625	164.9	180.9	221.9
Bessemer, Pittsburgh	26.770	29.960	35.270	156.3	174.9	205.9
Foundry, No. 2, northern, Pittsburgh	26.020	32.370	36.645	162.5	202.2	228.9
Foundry, No. 2, Birmingham, Ala	18.250	20.100	26.000	156.1	171.9	222.4
Ferromanganese, per gross ton, seaboard	67.500	67.500	67.500	115.8	115.8	115.8
Spiegeleisen, 18 and 22 per cent, per gross ton, furnace	35.500	37.600	38.313	142.0	150.4	153.3
Bariron, per pound—						
Best refined, Philadelphia	.025	.027	.029	133.5	145.2	153.2
Common, f. o. b. Pittsburgh	.022	.023	.025	133.3	138.8	150.3

[1] No quotation.

[3] No 1913 base price.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers. (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Metals and metal products—Concluded.						
(*a*) Iron and steel—Concluded.						
Bars, reinforcing, per 100 pounds, Pittsburgh	$1.650	$1.650	$2.075	119.9	119.9	150.8
Nails, wire, per 100 pounds, Pittsburgh	2.500	2.580	2.725	137.5	141.9	149.8
Pipe, cast-iron, 6-inch, per net ton, New York	53.450	54.100	54.500	228.7	231.5	233.2
Skelp, grooved, per 100 pounds, Pittsburgh	1.700	1.900	2.000	122.3	136.7	143.9
Steel billets, per gross ton, Pittsburgh—						
Bessemer	35.000	36.100	39.500	135.7	140.0	153.2
Open hearth	35.000	36.100	39.500	134.1	138.3	151.4
Steel, merchant bars, per 100 pounds, Pittsburgh	1.700	1.880	2.000	109.8	121.4	129.2
Steel plates, tank, per pound, Pittsburgh	.017	.019	.021	114.9	127.0	143.9
Steel rails, per gross ton, Pittsburgh—						
Bessemer, standard	40.000	40.000	40.000	142.9	142.9	142.9
Open hearth, standard	40.000	40.000	40.000	133.3	133.3	133.3
Steel sheets, black, per pound, f. o. b. Pittsburgh	.032	.033	.035	147.5	150.2	158.4
Steel, structural shapes, per 100 pounds, Pittsburgh	1.650	1.750	2.075	109.2	115.9	137.4
Terneplate, 8 pounds I. C., per base box (200 pounds), Pittsburgh	9.600	9.600	9.600	138.4	138.4	138.4
Tin plate, domestic, coke, per 100 pounds, Pittsburgh	4.750	4.750	4.750	133.5	133.5	133.5
Wire, per 100 pounds—						
Barbed, galvanized, Chicago	3.390	3.430	3.540	146.8	148.5	153.3
Plain, fence, annealed, Pittsburgh	2.250	2.290	2.375	148.8	151.4	157.0
(*b*) Nonferrous metals:						
Aluminum, per pound, New York	.180	.180	.183	76.1	76.1	77.2
Copper, ingot, electrolytic, per pound, refinery	.137	.138	.138	87.2	87.4	87.4
Copper, sheet, per pound, New York	.201	.203	.208	94.8	95.6	97.9
Copper wire, bare, per pound, mill	.158	.158	.160	94.1	94.3	95.6
Lead, pig, per pound, New York	.058	.059	.062	130.7	133.4	139.8
Lead, pipe, per 100 pounds, New York	7.110	7.110	7.288	139.9	139.9	143.4
Quicksilver, per pound, New York	.733	.770	.893	129.8	136.3	158.1
Silver, bar, fine, per ounce, New York	.707	.698	.699	115.4	114.0	114.1
Tin, pig, per pound, New York	.315	.325	.323	70.3	72.3	72.0
Zinc, sheet, per 100 pounds, factory	6.922	7.130	7.329	95.5	98.4	101.2
Zinc, slab, per pound, New York	.060	.066	.069	103.1	113.0	118.2
Building materials.						
(*a*) Lumber:						
Douglas fir, per 1,000 feet, mill—						
No. 1 common, boards	14.500	16.500	19.500	157.5	179.2	211.8
No. 2 and better, drop siding	38.000	38.000	41.000	219.2	219.2	236.5
Gum, sap, firsts and seconds, per 1,000 feet, St. Louis	46.600	46.000	46.000	225.3	222.3	222.3
Hemlock, northern, No. 1, per 1,000 feet, Chicago	35.500	36.400	37.625	168.3	172.7	178.4
Maple, hard, No. 1 common, 4/4, per 1,000 feet, Chicago	51.750	53.500	53.500	171.7	177.5	177.5
Oak, white, plain, No. 1 common, 4/4, per 1,000 feet, Cincinnati	73.900	72.625	70.000	199.8	196.3	189.2
Pine, white, No. 2 barn, per 1,000 feet, Buffalo, N. Y.	62.000	62.000	63.250	212.1	212.1	216.3
Pine, yellow, southern, mill, per 1,000 feet—						
Flooring, B and better	45.220	46.120	49.450	196.3	200.2	214.7
Timbers, square edge and sound	24.400	25.110	26.450	166.7	171.6	180.7
Poplar, No. 1 common, 4/4, per 1,000 feet, Cincinnati	57.500	57.500	57.500	174.2	174.2	174.2
Spruce, eastern, random, per 1,000 feet, Boston	32.500	32.500	32.500	149.9	149.9	149.9
Lath, yellow pine, No. 1, per 1,000, f. o. b. mill	5.120	5.180	5.430	168.4	170.4	178.7
Shingles—						
Cypress, 16 inches long, per 1,000, mill	5.000	5.000	5.000	141.2	141.2	141.2
Red cedar, 16 inches long, per 1,000, mill	3.520	3.890	3.630	179.0	197.0	184.6
(*b*) Brick, common building, per 1,000:						
Simple average of 82 yard prices	13.657	13.555	13.742	200.9	199.5	202.4
Run of kiln, f. o. b. plant, Chicago	9.160	8.720	8.800	185.5	176.6	178.2
(*c*) Structural steel. (See Metals and metal products.)						
(*d*) Other building materials:						
Cement, Portland, per barrel, f. o. b. plant—						
Simple average of 6 plant prices in Pa., Ind., Minn., Tex., and Calif	1.796	1.845	1.928	172.8	177.6	185.6
Buffington, Ind. (representative of eastern prices)	1.600	1.643	1.750	158.3	162.6	173.1
Crushed stone, 1½", per cubic yard, New York	1.650	1.650	1.650	183.3	183.3	183.3
Gravel, per ton, f. o. b. pit, average of 22 plant prices	.865	.865	.884	175.0	175.0	178.8
Hollow tile, building, per block, Chicago	.071	.074	.081	110.5	115.8	126.3
Lime, common, lump, per ton, f. o. b. plant, average of 15 plant prices	8.761	8.807	8.889	212.3	213.4	215.5
Sand, building, per ton, f. o. b. pit, average of 26 plant prices	.584	.580	.600	153.4	152.3	157.4
Slate roofing, per 100 square feet, f. o. b. quarry	9.500	9.500	9.500	205.4	205.4	205.4
Glass, plate—						
3 to 5 square feet, per square foot, New York	.400	.400	.440	169.0	169.0	185.9
5 to 10 square feet, per square foot, New York	.500	.500	.610	157.1	157.1	191.6

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers. (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Building materials—Concluded.						
(*d*) Other building materials—Concluded.						
Glass, window, American, f. o. b. works—						
Single, A, per 50 square feet	$3.900	$3.900	$3.900	171.5	171.5	171.5
Single, B, per 50 square feet	3.420	3.420	3.420	154.0	154.0	154.0
Linseed oil, raw, per gallon, New York	.878	.865	.876	190.0	187.2	189.6
Putty, commercial, per pound, New York	.048	.048	.048	179.2	179.2	179.2
Rosin, common to good (B), per barrel, New York	5.538	5.990	6.356	115.0	124.4	132.0
Turpentine, southern, barrels, per gallon, New York	1.207	1.194	1.298	282.1	279.0	303.4
White lead, American, in oil, per pound, New York	.125	.125	.122	184.9	184.9	179.7
Zinc oxide (white zinc), per pound, New York	.073	.063	.063	134.8	116.2	116.2
Pipe, cast-iron. (See Metals and metal products.)						
Copper, sheet. (See Metals and metal products.)						
Copper wire. (See Metals and metal products.)						
Lead pipe. (See Metals and metal products.)						
Nails. (See Metals and metal products.)						
Reinforcing bars. (See Metals and metal products.)						
Roofing tin (terneplate). (See Metals and metal products.)						
Zinc, sheet. (See Metals and metal products.)						
Chemicals and drugs.						
(*a*) Chemicals:						
Acids, per pound, New York—						
Acetic, 28 per cent	.025	.027	.027	127.8	137.6	140.7
Muriatic, 20°	.011	.011	.011	84.6	84.6	84.6
Nitric, 42°	.057	.055	.055	116.8	112.7	112.7
Stearic, triple pressed	.105	.105	.105	79.2	79.2	79.2
Sulphuric, 66°	.007	.007	.007	71.0	70.0	74.0
Alcohol, per gallon, New York—						
Denatured, No. 5, 188 proof	.310	.315	.344	84.7	86.1	94.0
Wood, refined, 95 per cent	.520	.520	.572	108.7	108.7	119.6
Alum, lump, per pound, New York	.033	.033	.034	185.7	185.7	194.3
Ammonia, anhydrous, per pound, New York	.300	.300	.300	120.0	120.0	120.0
Bleaching powder, per 100 pounds, New York	1.600	1.675	1.890	135.5	142.0	160.0
Borax, crystals and granulated, per pound, New York	.055	.055	.055	146.7	146.7	146.7
Copper, sulphate, 99 per cent, crystals, per pound, New York	.063	.060	.059	120.0	115.2	113.2
Copra, South Sea. (See Foods.)						
Formaldehyde, per pound, New York	.080	.080	.094	94.7	94.7	111.5
Oil, vegetable—						
Coconut, crude. (See Foods.)						
Corn, crude. (See Foods.)						
Palm kernel, crude, per pound, New York	.089	.088	.086	88.1	86.6	84.7
Soya bean, crude. (See Foods.)						
Potash, caustic, 88–92 per cent, per pound, New York	.057	.057	.058	160.6	158.4	160.6
Sal soda, per 100 pounds, New York	1.200	1.200	1.200	200.0	200.0	200.0
Soda ash, 58 per cent, light, per 100 pounds, New York	1.960	1.950	1.950	336.0	334.3	334.3
Soda, bicarbonate, American, per pound, f. o. b. works	.018	.018	.018	175.0	175.0	175.0
Soda, caustic, 76 per cent, solid, per pound, New York	.036	.036	.036	247.3	249.3	245.9
Soda, silicate of, 40°, per 100 pounds, New York	.775	.775	.775	121.9	121.9	121.9
Sulphur, crude, per gross ton, New York	14.000	14.000	14.000	63.6	63.6	63.6
Tallow, inedible, packers' prime, per pound, Chicago	.066	.068	.069	93.8	96.3	98.0
(*b*) Fertilizer materials:						
Acid phosphate, 16 per cent basis, bulk, per ton, New York	8.700	8.750	8.650	113.2	113.7	112.5
Ammonia, sulphate, double bags, per 100 pounds, New York	3.425	3.550	3.710	109.6	113.6	118.8
Ground bone, steamed, per ton, Chicago	27.100	27.500	29.500	134.8	136.6	146.6
Muriate of potash, 80–85 per cent, K. C. L. bags, per ton, New York	32.950	32.950	32.950	86.8	86.8	86.8
Phosphate rock, 68 per cent, per ton, f. o. b. mines	3.250	3.250	2.750	95.4	95.4	80.7
Soda nitrate, 95 per cent, per 100 pounds, New York	2.490	2.381	2.390	100.9	96.5	96.8
Tankage, 9 and 20 per cent, crushed, per ton, f. o. b. Chicago	40.700	42.500	40.250	174.2	181.9	172.3
(*c*) Drugs and pharmaceuticals:						
Acid, citric, domestic, crystals, per pound, New York	.450	.450	.472	103.5	103.5	108.4
Acid, tatarie, crystal, U. S. P., per pound, New York	.300	.300	.308	98.3	98.3	101.0
Alcohol, grain, 190 proof, U. S. P., per gallon, New York	4.700	4.700	4.704	188.1	188.1	188.2
Cream of tartar, powdered, per pound, New York	.265	.265	.265	111.2	111.2	111.2
Epsom salts, U. S. P., in barrels, per 100 pounds, New York	2.475	2.460	2.500	225.0	223.6	227.3
Glycerine, refined, per pound, New York	.154	.167	.177	78.1	84.7	89.8

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Continued.

Commodity.	Average prices.			Index numbers. (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Chemicals and drugs—Concluded.						
(c) Drugs and pharmaceuticals—Concluded.						
Opium, natural, U. S. P., per pound, New York	$6.000	$6.000	$6.450	99.7	99.7	107.2
Peroxide of hydrogen, 4-ounce bottles, per gross, New York	7.500	7.500	7.500	187.5	187.5	187.5
Phenol, U. S. P. (carbolic acid), per pound, New York	.120	.160	.192	109.4	145.7	174.8
Quinine, sulphate, manufacturers' quotations, per ounce, New York	.500	.500	.500	227.7	227.7	227.7
House-furnishing goods.						
(a) Furniture:						
Bedroom—						
Bed, combination, per bed, factory	35.000	35.000	35.000	155.6	155.6	155.6
Chair, all gum, cane seat, per chair, factory	5.250	5.250	5.250	233.3	233.3	233.3
Chiffonette, combination, per chiffonette, factory	40.000	40.000	40.000	123.1	123.1	123.1
Dresser, combination, per dresser, factory	54.000	54.000	54.000	150.0	150.0	150.0
Rocker, quartered oak, per chair, Chicago	4.410	4.410	4.410	215.3	215.3	215.3
Set, 3 pieces, per set, Chicago	35.819	35.819	35.819	188.7	188.7	188.7
Dining room—						
Buffet, combination, per buffet, factory	54.000	54.000	54.000	125.6	125.6	125.6
Chair, all gum, leather slip seat, per 6, factory	31.500	31.500	31.500	210.0	210.0	210.0
Table, extension, combination, per table, factory	33.500	33.500	33.500	181.1	181.1	181.1
Living room—						
Davenport, standard pattern, per davenport, factory	61.500	61.500	61.500	178.3	178.3	178.3
Table, library, combination, per table, factory	34.000	34.000	34.000	170.0	170.0	170.0
Kitchen—						
Chair, hardwood, per dozen, Chicago	14.700	14.700	14.700	230.8	230.8	230.8
Refrigerator, lift top type, each, factory	16.200	16.200	16.200	156.8	156.8	156.8
Table, with drawer, per table, Chicago	3.626	3.626	3.626	255.2	255.2	255.2
(b) Furnishings:						
Blankets—						
Cotton, colored, 2 pounds to the pair, per pair, New York	1.235	1.235	1.235	204.1	204.1	204.1
Wool, 4 to 5 pounds to the pair, per pound, factory	1.176	1.176	1.201	153.8	153.8	156.9
Carpets, per yard, factory—						
Axminster, Bigelow	2.880	2.880	2.880	215.0	215.0	215.0
Brussels, Bigelow	2.736	2.736	2.736	211.8	211.8	211.8
Wilton, Bigelow	4.608	4.608	4.608	191.4	191.4	191.4
Cutlery—						
Carvers, 8-inch, per pair, factory	1.200	1.200	1.200	160.0	160.0	160.0
Knives and forks, per gross, factory	12.000	12.000	12.000	208.7	208.7	208.7
Pails, galvanized-iron, 10-quart, per gross, factory	20.000	20.184	20.867	136.4	137.6	142.2
Sheeting, bleached, 10/4—						
Pepperell, per yard, New York	.436	.439	(1)	182.3	183.4	.....
Wamsutta, per yard, factory	.888	.888	.888	272.7	272.7	272.7
Tableware—						
Glass nappies, 4-inch, per dozen, factory	.250	.250	.250	227.3	227.3	227.3
Glass pitchers, ½-gallon, per dozen, factory	1.820	1.820	1.820	227.5	227.5	227.5
Glass tumblers, ½-pint, per dozen, factory	.200	.200	.200	166.7	166.7	166.7
Plates, white granite, 7-inch, per dozen, factory	.980	.980	.980	211.5	211.5	211.5
Tea cups and saucers, white granite, per dozen, factory	1.260	1.260	1.260	221.0	221.0	221.0
Ticking, Amoskeag, A. C. A., 2.05 yards to the pound, per yard, New York	.250	.250	.250	185.7	185.7	185.7
Tubs, galvanized-iron, No. 3, per dozen, factory	5.750	6.307	6.482	140.0	153.6	157.8
Miscellaneous.						
(a) Cattle feed:						
Bran, per ton, Minneapolis	15.188	14.025	16.750	82.7	76.4	91.2
Cottonseed meal, prime, per ton, New York	50.750	48.750	40.750	160.6	154.2	128.9
Linseed meal, per ton, New York	46.800	45.000	43.000	164.7	158.4	151.3
Mill feed, middlings, standard, per ton, Minneapolis	17.125	16.400	17.938	88.0	84.3	92.2
(b) Leather:						
Calf, chrome, B grade, per square foot, Boston	.435	.435	.465	161.4	161.4	172.5
Glazed kid, black, top grade, per square foot, Boston	.675	.700	.700	269.6	279.6	279.6
Harness, Cal. oak, No. 1, per pound, Chicago	.431	.441	.480	107.5	109.9	119.7
Side, black, chrome, B grade, per square foot, Boston	.230	.260	.265	89.9	101.6	103.6
Sole, per pound—						
Hemlock, middle, No. 1, Boston	.350	.350	.350	124.1	124.1	124.1
Oak, scoured backs, heavy, Boston	.515	.515	.525	114.8	114.8	117.0
Union, middle weight, New York	.465	.493	.508	115.9	122.9	126.5

[1] No quotation.

WHOLESALE PRICES OF COMMODITIES, JULY TO SEPTEMBER, 1922—Concluded.

Commodity.	Average prices.			Index numbers. (1913=100.)		
	July, 1922.	Aug., 1922.	Sept., 1922.	July, 1922.	Aug., 1922.	Sept., 1922.
Miscellaneous—Concluded.						
(c) Paper and pulp:						
Paper—						
Newsprint, rolls, per pound, f. o. b. mill	$0.036	$0.038	$0.039	175.5	182.7	187.6
Wrapping, manila, No. 1, jute, per pound, New York	.088	.088	.088	179.3	179.3	179.3
Wood pulp, sulphite, domestic, unbleached, per 100 pounds, New York	2.525	2.525	2.525	113.5	113.5	113.5
(d) Other miscellaneous:						
Hemp, manila, fair, current shipment, per pound, New York	.070	.070	.069	75.1	75.8	74.5
Jute, raw, medium grades, per pound, New York	.075	.075	.070	112.1	112.1	104.6
Lubricating oil, parafin, 903 gravity, per gallon, New York	.230	.230	.230	161.4	161.4	161.4
Rope, pure manila, best grade, per pound, New York	.188	.188	.188	127.8	127.8	127.8
Rubber, Para, island, fine, per pound, New York	.172	.176	.171	21.3	21.7	21.1
Sisal, Mexican, current shipment, per pound, New York	.064	.064	.065	147.7	147.7	150.5
Soap—						
Laundry, per 100 cakes, Cincinnati	3.960	3.960	3.960	128.4	128.4	128.4
Laundry, per 100 cakes, Philadelphia	4.900	4.900	4.900	138.9	138.9	138.9
Starch, laundry, bulk, per pound, New York	.051	.051	.051	140.5	140.5	140.5
Tobacco—						
Plug, per pound, New York	.701	.701	.701	180.2	180.2	180.2
Smoking, per gross 1-ounce bags, New York	9.920	9.920	9.920	175.9	175.9	175.9

Changes in Cost of Living in the United States.

THE Bureau of Labor Statistics has secured data on cost of living for September, 1922, the results of which are shown in the following tables. The information is based on actual prices secured from merchants and dealers for each of the periods named. The prices of food and fuel and light in each city are furnished the bureau in accordance with arrangements made with establishments through personal visits of the bureau's agents. In each city food prices are secured from 15 to 25 merchants and dealers, and fuel and light prices from 10 to 15 firms, including public utilities. All other data are secured by special agents of the bureau who visit the various merchants, dealers, and agents, and secure the figures directly from their records. Four quotations are secured in each city (except in Greater New York, where five are obtained), on each of a large number of articles of clothing, furniture, and miscellaneous items. Rental figures are secured for from 375 to 2,000 houses and apartments in each city, according to its population

Table 1 shows the changes in the total cost of living from June, 1920, and June, 1922, respectively, to September, 1922, in 32 cities, and in the United States, as determined by a consolidation of the figures for the 32 cities.

TABLE 1.—CHANGES IN TOTAL COST OF LIVING IN SPECIFIED CITIES FROM JUNE, 1920, AND FROM JUNE, 1922, TO SEPTEMBER, 1922.

City	Per cent of decrease June, 1920, to September, 1922.	Per cent of increase (+) or decrease (−) June, 1922, to September, 1922.	City.	Per cent of decrease June, 1920, to September, 1922.	Per cent of increase (+) or decrease (−) June, 1922, to September, 1922.
Atlanta, Ga	22.4	+0.2	New Orleans, La	17.0	−0.9
Baltimore, Md	22.0	−.2	New York, N. Y	22.6	−.6
Birmingham, Ala	21.5	+.6	Norfolk, Va	24.3	−.8
Boston, Mass	23.6	+.8	Philadelphia, Pa	22.5	−1.6
Buffalo, N. Y	22.8	+1.4	Pittsburgh, Pa	21.1	−.2
Chicago, Ill	22.8	+.4	Portland, Me	22.2	+1.1
Cincinnati, Ohio	23.5	−.2	Portland, Oreg	23.1	+1.4
Cleveland, Ohio	23.6	−.5	Richmond, Va	22.0	−1.0
Denver, Colo	21.4	−.6	St. Louis, Mo	22.8	−.1
Detroit, Mich	25.6	+.2	San Francisco and Oakland, Calif	19.8	+.2
Houston, Tex	22.1	−.3	Savannah, Ga	26.0	−1.1
Indianapolis, Ind	22.0	+.6	Scranton, Pa	21.2	−1.2
Jacksonville, Fla	23.8	−.4	Seattle, Wash	20.9	−.3
Kansas City, Mo	24.4	−.7	Washington, D. C	22.1	−.4
Los Angeles, Calif	14.5	−.1			
Memphis, Tenn	19.5	−.3	United States	23.2	−.2
Minneapolis, Minn	19.2	−1.2			
Mobile, Ala	25.1	+.1			

Table 2 shows the changes from December, 1914, to September, 1922, by specified periods, in 19 cities.

In studying this and the following tables it should be borne in mind that the figures for the 19 cities in Table 2 are based on the prices prevailing in December, 1914, the figures for the 13 cities in Table 3 are based on the prices prevailing in December, 1917, while the figures for the United States, shown in Table 4, are a summarization of the figures in Tables 2 and 3, computed on a 1913 base.

It will be noted that from the beginning of the studies to June, 1920, there was, with an occasional exception, a steady increase in prices, becoming much more decided during the latter part of that period. From June to December, 1920, however, there was an appreciable drop in the figures representing the combined expenditures. While rents and fuel and light continued to advance considerably and miscellaneous items to a less extent, the large decrease in food and clothing and the somewhat smaller decrease in furniture and house furnishings had the effect of reducing the totals for December by from 2.5 to 10 per cent in the several cities below the price for June. The figures for the period from December, 1920, to May, 1921, show a larger decrease than the previous six-month period, ranging from 7.2 to 11.9 per cent. The small decrease in furniture and furnishings and the increase in fuel and light shown in the period from June to December, 1920, were changed to decided decreases in the period from December, 1920, to May, 1921, while the rapid decrease in food and clothing shown in the former period continued. However, housing made an appreciable advance while miscellaneous items increased only slightly.

In the period from May to September, 1921, the downward movement was not so rapid as during the two previous periods, the decreases ranging from nothing to 3.8 per cent, while the average for the United States was 1.7 per cent.

The decrease from September to December, 1921, was also slight, ranging from nothing to 3 per cent, the average for the United States again being 1.7 per cent.

The decrease from December, 1921, to March, 1922, was more decided, ranging from 2.3 per cent to 5.9 per cent, the average for the United States being 4.2.

The changes from March to June, 1922, were very small, ranging from a decrease of 1.4 per cent to an increase of 1 per cent, the average based upon the figures for the 32 cities being a decrease of 0.2 per cent. In nearly all of the cities there was a small increase in the cost of food and a slight decrease in clothing, fuel and light, furniture and miscellaneous. Housing showed a small increase in several cities and a decrease in others.

The changes from June to September, 1922, ranged from a decrease of 1.6 per cent to an increase of 1.4 per cent, the average for the 32 cities being a decrease of 0.2 per cent. In many of the cities the change was less than half of 1 per cent.

In nearly all the cities there was a small decrease in the cost of food, clothing, and miscellaneous items. The cost of furniture and house furnishings and of rents increased in some cities and decreased in others. As a result of the recent miners' strike the coal situation is more or less unsettled and as a consequence the figures in fuel and light are somewhat irregular. In a few instances the prices given are apparently those that were in effect before the scarcity of coal caused a rise in price. In other cities coal is such a small factor in the cost of fuel and light that the strike had no appreciable effect on this item.

TABLE 2.—CHANGES IN COST OF LIVING IN 19 CITIES FROM DECEMBER, 1914, TO SEPTEMBER, 1922.

Baltimore, Md.

Item of expenditure.	Per cent of increase from December, 1914, to—													
	Dec., 1915.	Dec., 1916.	Dec., 1917.	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept, 1922.
Food	[1] 4.1	20.9	64.4	96.4	91.1	92.5	110.9	75.6	43.4	48.6	46.9	38.3	39.9	39.4
Clothing	2.7	24.0	52.1	107.7	128.9	177.4	191.3	159.5	123.2	101.5	88.6	82.0	78.9	77.8
Housing	[1] .2	.9	3.0	13.8	16.8	25.8	41.6	49.5	63.0	64.0	64.7	65.2	65.4	65.6
Fuel and light	.5	9.1	25.5	46.0	37.1	48.1	57.6	79.0	70.9	84.9	85.5	85.5	84.8	90.9
Furniture and furnishings	5.6	26.4	60.8	122.3	134.6	167.0	191.8	181.9	147.5	128.7	123.7	115.0	113.3	114.2
Miscellaneous	[1] 1.4	18.5	51.3	78.7	82.8	99.4	111.4	112.9	111.8	112.2	108.6	106.9	104.4	103.8
Total	[1] 1.4	18.5	51.3	84.7	84.0	98.4	114.3	96.8	77.4	76.5	73.2	67.9	67.6	67.2

Boston, Mass.

Food	[1] 0.3	18.0	45.8	74.9	67.9	80.8	105.0	74.4	41.9	52.1	50.4	34.3	32.5	37.4
Clothing	6.6	21.9	47.5	117.5	137.9	192.4	211.1	192.7	150.3	118.8	106.3	98.9	96.7	92.4
Housing	[1] .1	.1	[1] .1	2.8	5.1	12.2	16.2	25.8	29.8	31.6	33.8	33.9	34.4	34.9
Fuel and light	1.1	10.5	29.2	56.6	55.0	63.2	83.6	106.0	97.8	94.4	98.5	93.9	92.5	91.7
Furniture and furnishings	8.4	26.3	58.4	137.6	153.7	198.7	233.7	226.4	171.2	139.5	136.9	128.1	124.2	124.0
Miscellaneous	1.6	15.7	38.1	62.0	64.8	81.1	91.8	96.6	96.2	94.6	93.0	91.6	89.5	89.3
Total	1.6	15.7	38.1	70.6	72.8	92.3	110.7	97.4	74.4	72.8	70.2	61.2	59.6	60.9

[1] Decrease.

TABLE 2.—CHANGES IN COST OF LIVING IN 19 CITIES FROM DECEMBER, 1914, TO SEPTEMBER, 1922—Continued.

Buffalo, N. Y.

Item of expenditure.	Per cent of increase from December, 1914, to—													
	Dec., 1915.	Dec., 1916.	Dec., 1917.	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	2.4	30.1	64.1	87.8	82.9	94.7	115.7	78.5	37.7	49.9	50.8	39.4	38.5	41.2
Clothing	8.9	29.6	58.5	123.1	140.7	190.8	210.6	168.7	131.6	102.4	96.5	87.7	83.6	79.4
Housing	1.2	4.7	9.4	20.7	28.0	29.0	46.6	48.5	61.1	61.7	61.7	61.9	64.7	64.7
Fuel and light	1.3	9.3	23.5	49.3	51.9	55.7	69.8	74.9	73.9	79.5	79.7	78.8	78.8	122.1
Furniture and furnishings	7.1	24.1	50.2	106.3	118.1	165.4	199.7	189.2	151.3	130.9	124.7	115.5	108.0	107.8
Miscellaneous	3.5	24.4	51.1	76.0	78.7	90.3	101.9	107.4	107.8	105.7	103.0	99.5	97.9	97.9
Total	3.5	24.4	51.1	80.9	84.2	102.7	121.5	101.7	80.3	78.4	76.8	69.9	68.6	71.0

Chicago, Ill.

Food	2.7	25.2	53.4	78.7	73.3	93.1	120.0	70.5	41.9	51.3	48.3	38.3	41.6	40.7
Clothing	7.5	24.2	50.6	138.9	157.1	224.0	205.3	158.6	122.7	86.0	74.3	66.8	63.0	65.8
Housing	[1].1	.7	1.4	2.6	8.0	14.0	35.1	48.9	78.2	79.8	83.9	84.1	87.4	87.6
Fuel and light	[1].9	6.6	19.3	37.1	35.7	40.1	62.4	83.5	65.3	67.1	69.4	54.8	55.4	64.3
Furniture and furnishings	5.9	20.0	47.5	108.9	126.9	176.0	215.9	205.8	162.4	138.0	133.7	114.5	108.5	107.5
Miscellaneous	3.0	19.5	41.8	58.7	61.7	84.3	87.5	96.5	98.5	97.5	94.5	92.7	87.9	87.3
Total	3.0	19.5	41.8	72.2	74.5	100.6	114.6	93.3	78.4	75.3	72.3	65.1	65.0	65.6

Cleveland, Ohio.

Food	1.4	26.4	54.3	79.4	79.7	92.9	118.7	71.7	37.4	47.7	40.9	29.8	34.6	32.3
Clothing	2.0	18.0	43.7	102.6	125.2	171.2	185.1	156.0	124.0	90.8	85.8	77.4	72.4	69.5
Housing	.1	.9	11.3	16.5	21.8	39.9	47.3	80.0	88.1	82.8	81.2	72.0	69.6	70.1
Fuel and light	.3	10.0	26.8	51.9	47.9	62.9	90.3	94.5	89.6	91.9	103.8	102.2	102.2	113.1
Furniture and furnishings	4.7	19.7	47.8	102.4	117.0	112.3	129.1	121.3	86.8	67.9	60.5	50.5	50.0	53.6
Miscellaneous	1.4	19.1	42.9	67.1	74.7	85.9	117.9	134.0	129.6	123.4	123.2	111.1	110.7	109.4
Total	1.4	19.1	42.9	71.4	77.2	95.1	116.8	104.0	84.7	79.9	76.4	66.2	66.6	65.7

Detroit, Mich.

Food	4.1	26.5	59.7	82.5	86.4	99.5	132.0	75.6	41.1	54.3	47.3	36.5	43.1	39.8
Clothing	2.3	18.9	46.7	113.8	125.2	181.8	208.8	176.1	134.1	99.9	92.5	82.7	81.4	81.2
Housing	2.1	17.5	32.6	39.0	45.2	60.2	68.8	108.1	101.4	96.6	91.1	88.0	86.9	87.6
Fuel and light	1.6	9.9	30.2	47.6	47.6	57.9	74.9	104.5	83.6	81.9	77.5	74.0	75.2	90.3
Furniture and furnishings	8.7	24.5	50.4	107.3	129.3	172.6	206.7	184.0	134.0	102.9	96.8	82.6	76.0	80.0
Miscellaneous	3.5	22.3	49.9	72.6	80.3	100.1	141.3	144.0	140.1	131.9	130.7	126.3	121.3	122.2
Total	3.5	22.3	49.9	78.0	84.4	107.9	136.0	118.6	93.3	88.0	82.4	74.6	75.3	75.6

Houston, Tex.

Food	[1] 1.0	19.9	57.3	86.1	85.7	97.5	107.5	83.2	45.6	49.7	50.1	40.2	38.9	38.5
Clothing	2.7	25.0	51.5	117.3	134.8	192.0	211.3	187.0	143.4	111.5	104.9	98.8	98.4	97.8
Housing	[1] 2.3	[1] 7.3	[1] 7.7	[1] 1.7	1.9	13.4	25.3	35.1	39.4	39.4	39.8	39.5	38.5	38.1
Fuel and light	[1].9	8.3	22.7	47.5	37.6	60.0	55.1	74.2	46.0	39.0	39.4	34.4	32.9	35.7
Furniture and furnishings	6.1	29.6	62.3	119.9	144.5	181.8	213.9	208.2	173.7	156.7	148.2	137.5	133.7	131.8
Miscellaneous	[1].3	16.4	44.9	67.6	72.3	88.2	90.4	103.9	100.8	100.0	99.0	96.0	94.0	93.0
Total	[1].3	16.4	44.9	75.7	80.2	101.7	112.2	104.0	79.7	75.0	73.6	67.2	65.9	65.4

[1] Decrease.

TABLE 2.—CHANGES IN COST OF LIVING IN 19 CITIES FROM DECEMBER, 1914, TO SEPTEMBER, 1922—Continued.

Jacksonville, Fla.

Item of expenditure.	Pet cent of increase from Decemder, 1914, to—													
	Dec., 1915.	Dec., 1916.	Dec., 1917.	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	[1] 0.3	17.6	50.8	76.2	74.2	80.9	90.1	65.6	32.6	43.1	40.6	30.0	30.6	28.9
Clothing	10.5	33.7	71.9	130.5	139.8	217.2	234.0	209.3	167.5	131.1	117.9	104.8	99.9	99.1
Housing	[1] 6.9	[1] 18.2	[1] 18.7	5.9	9.7	22.0	28.9	34.1	36.5	37.7	38.3	37.6	35.3	34.2
Fuel and light	[2]	2.3	15.1	55.2	49.2	64.1	72.6	92.6	80.7	68.1	68.9	61.6	58.9	58.9
Furniture and furnishings	15.1	43.4	73.7	126.5	140.0	186.2	224.2	222.3	182.7	140.9	134.9	122.0	115.3	117.7
Miscellaneous	1.3	14.7	41.6	60.5	65.9	80.9	102.8	105.6	107.5	100.9	99.3	98.7	95.5	95.5
Total	1.3	14.7	41.6	71.5	77.5	101.5	116.5	106.2	85.8	78.7	75.1	68.0	65.7	65.0

Los Angeles, Calif.

Food	[1] 4.1	0.4	33.4	61.8	60.7	71.0	90.8	62.7	33.2	39.3	38.4	27.5	30.6	34.0
Clothing	2.8	14.3	45.0	109.1	123.3	167.6	184.5	166.6	127.4	98.3	94.3	84.4	81.3	78.2
Housing	[1] 2.7	[1] 2.5	[1].6	4.4	8.7	26.8	42.6	71.4	85.3	86.0	90.1	96.0	95.6	94.4
Fuel and light	.4	2.3	10.4	18.3	18.6	35.3	53.5	53.5	52.7	52.7	52.7	48.4	39.1	35.9
Furniture and furnishings	6.3	23.1	56.4	118.5	134.2	175.5	202.2	202.2	156.6	148.4	143.2	133.7	128.8	128.1
Miscellaneous	[1] 1.9	7.7	28.9	52.0	59.1	76.9	86.6	100.6	96.8	98.8	99.6	104.0	103.8	102.2
Total	[1] 1.9	7.7	28.9	58.0	65.1	85.3	101.7	96.7	78.7	76.8	76.4	72.4	72.5	72.4

Mobile, Ala.

Food	[1] 1.0	19.9	57.3	80.6	83.6	98.4	110.5	73.5	39.1	43.7	42.4	32.3	33.2	32.9
Clothing	2.0	9.0	38.8	86.0	94.0	123.7	137.4	122.2	90.6	68.1	57.7	50.3	49.7	51.0
Housing	[1] 1.9	[1] 4.3	[1] 3.6	11.2	11.9	29.6	34.6	53.6	53.3	53.1	49.9	48.4	47.7	47.3
Fuel and light	[2]	8.8	27.1	57.1	66.6	75.6	86.3	122.3	102.1	97.2	98.2	86.1	84.4	90.9
Furniture and furnishings	4.1	15.3	42.8	108.3	113.9	163.3	177.9	175.4	140.7	124.3	116.9	98.2	97.8	93.1
Miscellaneous	[1].4	13.8	43.2	72.4	75.3	87.0	100.3	100.7	96.9	96.1	94.3	89.6	87.5	87.3
Total	[1].4	13.8	43.2	71.4	76.6	94.5	107.0	93.3	70.8	67.2	63.6	55.8	55.3	55.5

New York, N. Y.

Food	1.3	16.3	55.3	82.6	75.3	91.0	105.3	73.5	42.5	50.3	51.8	36.5	40.0	38.8
Clothing	4.8	22.3	54.2	131.3	151.6	219.7	241.4	201.8	159.5	131.5	117.8	107.1	103.0	98.1
Housing	[1].1	[1].1	2.6	6.5	13.4	23.4	32.4	38.1	42.2	44.0	53.7	54.5	55.7	56.2
Fuel and light	[1].1	11.0	19.9	45.5	45.4	50.6	60.1	87.5	95.9	92.4	90.7	89.4	89.0	97.7
Furniture and furnishings	8.4	27.6	56.5	126.5	136.6	172.9	205.1	185.9	156.5	136.7	132.0	122.3	118.3	117.9
Miscellaneous	2.0	14.9	44.7	70.0	75.1	95.8	111.9	116.3	117.6	117.8	116.9	113.2	112.8	112.4
Total	2.0	14.9	44.7	77.3	79.2	103.8	119.2	101.4	81.7	79.7	79.3	69.9	70.7	69.7

Norfolk, Va.

Food	0.8	22.4	63.9	86.2	89.8	91.5	107.6	76.3	45.4	50.2	43.4	31.9	33.5	32.4
Clothing	.8	6.0	31.6	94.6	104.8	158.4	176.5	153.6	121.6	93.9	90.2	81.8	77.6	74.6
Housing	.1	[1] 1.7	[1] 1.7	39.0	46.5	63.3	70.8	90.8	94.6	94.6	93.4	91.7	88.1	82.5
Fuel and light	[2]	17.0	33.3	74.6	69.7	89.9	110.6	128.9	97.3	98.1	91.6	93.5	87.7	97.8
Furniture and furnishings	.6	8.7	39.0	105.5	110.7	143.6	165.0	160.5	129.0	110.5	106.1	95.0	88.4	86.7
Miscellaneous	.6	14.7	45.2	76.8	83.7	97.5	108.4	106.3	106.3	112.5	109.3	102.6	100.8	100.6
Total	.6	14.7	45.2	80.7	87.1	107.0	122.2	109.0	88.1	83.9	79.2	71.3	69.5	68.1

[1] Decrease. [2] No change.

TABLE 2.—CHANGES IN COST OF LIVING IN 19 CITIES FROM DECEMBER, 1914, TO SEPTEMBER, 1922—Continued.

Philadelphia, Pa.

Item of expenditure.	Per cent of increase from December, 1914, to—													
	Dec., 1915.	Dec., 1916.	Dec., 1917.	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	0.3	18.9	54.4	80.7	75.5	87.2	101.7	68.1	37.8	44.6	43.9	34.4	38.1	32.7
Clothing	3.6	16.0	51.3	111.2	135.9	190.3	219.6	183.5	144.7	112.2	104.6	96.2	89.5	87.4
Housing	[1].3	[1].7	2.6	8.0	11.3	16.7	28.6	38.0	44.2	47.1	48.1	48.7	49.6	51.1
Fuel and light	[1].8	5.4	21.5	47.9	43.3	51.3	66.8	96.0	85.6	89.3	92.0	89.7	85.7	86.3
Furniture and furnishings	6.9	19.9	49.8	107.7	117.8	162.8	187.4	183.4	135.5	109.1	101.6	91.7	90.0	89.1
Miscellaneous	1.2	14.7	43.8	67.5	71.2	88.6	102.8	122.3	119.2	116.4	116.2	113.8	112.3	111.5
Total	1.2	14.7	43.8	73.9	76.2	96.5	113.5	100.7	79.8	76.0	74.3	68.2	68.2	65.5

Portland, Me.

Food	[1]2.0	18.6	49.8	86.8	80.6	91.9	114.5	78.7	46.7	56.8	54.8	39.2	39.9	44.5
Clothing	2.1	9.7	32.8	85.8	103.8	148.5	165.9	147.8	116.3	96.6	88.1	81.0	76.7	74.8
Housing	.2	.6	2.4	2.5	5.7	10.7	14.5	20.0	23.1	23.3	26.6	27.0	24.8	26.3
Fuel and light	.4	11.4	28.9	67.7	58.4	69.8	83.9	113.5	96.8	90.9	94.0	93.8	96.1	96.7
Furniture and furnishings	6.2	20.9	43.5	110.8	126.4	163.7	190.3	191.2	152.2	139.1	123.6	110.6	108.1	106.4
Miscellaneous	[1].4	13.8	38.0	65.6	72.1	83.2	89.4	94.3	94.1	94.1	91.2	89.5	88.2	88.0
Total	[1].4	13.8	38.0	72.2	74.3	91.6	107.6	93.1	72.1	72.0	69.2	60.7	59.7	61.5

Portland, Oreg.

Food	[1]3.8	9.8	42.2	70.6	67.1	81.6	107.1	60.9	26.0	35.9	33.1	24.6	26.5	30.1
Clothing	3.0	15.8	44.4	96.6	115.5	142.1	158.6	122.1	91.2	70.4	65.3	56.5	53.2	53.4
Housing	[1]10.9	[1]19.6	[1]22.2	12.3	20.2	27.7	33.2	36.9	42.9	43.3	43.3	43.2	43.3	43.7
Fuel and light	[1]1.0	3.4	20.2	30.9	31.3	42.3	46.9	65.9	67.1	58.9	59.4	56.2	50.3	59.0
Furniture and furnishings	2.9	18.0	54.5	109.0	122.1	145.1	183.9	179.9	148.0	126.9	121.9	104.6	101.9	100.3
Miscellaneous	[1]3.1	6.1	31.2	57.9	62.3	71.6	79.7	81.1	81.1	80.9	80.0	78.9	78.5	80.5
Total	[1]3.1	6.1	31.2	64.2	69.2	83.7	100.4	80.3	62.2	60.5	58.3	52.3	52.1	54.2

San Francisco and Oakland, Calif.

Food	[1]4.3	9.6	35.9	66.2	63.3	74.2	93.9	64.9	33.3	40.6	40.4	29.6	31.1	34.6
Clothing	2.5	14.5	43.6	109.0	134.6	170.4	191.0	175.9	140.9	110.1	106.3	97.8	90.7	86.1
Housing	[1].7	[1]2.5	[1]4.0	[1]3.9	[1]3.5	4.7	9.4	15.0	21.7	23.6	25.8	27.7	29.4	30.3
Fuel and light	[1].1	4.6	14.4	30.1	28.9	41.3	47.2	66.3	63.3	65.3	65.3	65.3	59.5	52.0
Furniture and furnishings	6.0	21.7	48.2	103.4	116.6	143.8	180.1	175.6	143.9	121.7	113.9	105.6	104.4	103.8
Miscellaneous	[1]1.7	8.3	28.6	50.5	61.0	74.7	79.6	84.8	84.4	87.4	86.8	84.4	83.7	83.5
Total	[1]1.7	8.3	28.6	57.8	65.6	87.8	96.0	85.1	66.7	64.6	63.6	57.5	56.8	57.1

Savannah, Ga.

Food	[1]0.3	17.6	50.8	76.2	74.2	80.9	91.7	63.5	28.7	36.8	33.7	16.7	22.7	13.4
Clothing	.8	24.1	56.6	133.6	146.3	195.9	212.1	171.5	133.2	101.3	84.2	74.1	71.7	77.4
Housing	[1]1.4	[1]3.0	[1]4.3	5.9	10.2	22.0	33.5	58.6	61.9	60.6	60.9	58.8	57.8	56.5
Fuel and light	[1]1.3	[1]1.7	[1]21.1	37.5	35.5	52.2	65.3	94.4	74.2	66.4	66.1	65.3	55.2	60.6
Furniture and furnishings	1.8	12.8	50.7	128.6	136.5	182.1	207.2	206.6	175.9	150.2	133.7	126.0	120.1	121.6
Miscellaneous	[1].2	14.5	42.5	67.3	71.2	82.0	83.8	91.5	93.0	88.0	87.4	84.6	81.1	80.9
Total	[1].2	14.6	42.5	75.0	79.8	98.7	109.4	98.7	77.6	71.3	66.2	56.9	56.8	55.0

[1] Decrease.

TABLE 2.—CHANGES IN COST OF LIVING IN 19 CITIES FROM DECEMBER, 1914, TO SEPTEMBER, 1922—Concluded.

Seattle, Wash.

Item of expenditure.	Per cent of increase from December, 1914, to—													
	Dec., 1915.	Dec., 1916.	Dec., 1917.	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	[1] 2.8	8.5	38.7	72.5	69.3	80.9	102.3	54.1	27.1	34.9	30.5	27.1	30.0	31.6
Clothing	1.2	11.3	36.4	88.0	110.2	154.5	173.9	160.5	128.7	93.5	88.7	79.8	78.0	73.9
Housing	[1] 2.4	[1] 5.4	[1] .6	44.3	51.5	71.5	74.8	76.7	74.8	71.3	69.2	67.0	64.7	63.4
Fuel and light	[1] .2	2.9	23.9	51.8	51.8	63.8	65.8	78.7	78.7	77.3	69.0	66.8	64.3	63.0
Furniture and furnishings	8.5	27.4	52.3	141.5	154.4	201.0	221.2	216.4	177.2	151.7	149.9	142.4	137.3	134.7
Miscellaneous	[1] 1.0	7.4	31.1	58.5	71.4	86.8	90.4	95.5	105.5	105.5	102.6	99.2	97.6	97.4
Total	[1] 1.0	7.4	31.1	69.9	76.9	97.7	110.5	94.1	80.2	75.5	71.5	67.4	67.0	66.5

Washington, D. C.

					[4]	[5]								
Food	0.6	15.7	61.1	90.9	84.6	93.3	108.4	79.0	47.4	59.1	51.1	40.8	44.3	42.5
Clothing	3.7	23.2	60.1	112.6	109.5	165.9	184.0	151.1	115.9	89.8	87.1	79.8	77.5	75.5
Housing	[1] 1.5	[1] 3.7	[1] 3.4	[1] 1.5	[1] 1.4	5.4	15.6	24.7	28.8	29.1	30.4	31.3	31.4	32.1
Fuel and light	[2]	7.3	24.9	40.9	41.8	42.8	53.7	68.0	57.1	57.6	49.9	47.1	44.5	49.0
Furniture and furnishings	6.3	30.5	72.1	127.4	126.0	159.3	196.4	194.0	149.0	132.1	122.4	110.4	108 1	109.3
Miscellaneous	.4	15.3	44.3	55.9	57.4	62.7	68.2	73.9	72.0	70.5	75.8	73.7	73.7	73.7
Total	1.0	14.6	47.3	73.8	71.2	87.6	101.3	87.8	67.1	66.2	63.0	56.8	57.6	56.9

[1] Decrease.
[2] No change.
[4] Figures in this column are for April, 1919.
[5] Figures in this column are for November, 1919.

Table 3 shows the changes in the cost of living from December, 1917, to September, 1922, in 13 cities. The table is constructed in the same manner as the preceding one and differs from it only in the base period, and in the length of time covered.

TABLE 3.—CHANGES IN COST OF LIVING IN 13 CITIES FROM DECEMBER, 1917, TO SEPTEMBER, 1922.

Atlanta, Ga.

Item of expenditure.	Per cent of increase from December, 1917, to—										
	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	19.0	18.0	27.9	34.0	12.8	[1] 8.9	[1] 5.8	[1] 7.2	[1] 11.9	[1] 10.5	[1] 12.3
Clothing	29.1	40.7	66.9	80.5	56.5	35.2	13.6	8.3	1.9	.4	3.1
Housing	14.0	14.5	32.6	40.4	73.1	78.8	77.0	75.4	72.2	68.1	63.2
Fuel and light	17.0	17.9	30.8	61.0	66.8	56.1	46.6	43.7	34.8	39.1	58.7
Furniture and furnishings	24.9	30.1	49.9	65.0	58.4	38.0	25.3	23.0	16.1	15.2	13.9
Miscellaneous	14.8	21.5	31.7	34.6	39.7	40.5	39.4	39.7	36.1	34.5	34.2
Total	19.7	23.3	37.9	46.7	38.5	25.2	20.7	18.7	13.8	13.7	13.9

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 13 CITIES FROM DECEMBER, 1917, TO SEPTEMBER, 1922—Continued.

Birmingham, Ala.

Item of expenditure.	Per cent of increase from December, 1917, to—										
	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	17.7	18.3	26.5	36.4	11.9	[1] 9.1	[1] 6.2	[1] 8.5	[1] 14.0	[1] 13.1	[1] 14.5
Clothing	23.9	29.8	57.6	66.4	45.1	24.8	6.7	[1] .4	[1] 5.2	[1] 6.1	[1] 1.2
Housing	8.1	12.8	34.9	40.3	68.5	77.4	76.5	70.9	67.5	67.0	66.0
Fuel and light	22.8	31.9	39.8	55.3	74.2	54.3	53.1	44.1	29.8	25.0	40.0
Furniture and furnishings	19.4	20.2	45.1	55.6	48.1	32.0	15.0	12.0	3.0	3.3	5.4
Miscellaneous	13.8	16.3	26.8	28.7	30.4	33.8	35.9	35.5	31.8	30.4	29.6
Total	17.0	19.8	34.3	41.9	33.3	22.1	19.6	16.2	11.0	10.7	11.4

Cincinnati, Ohio.

Food	15.3	18.1	22.9	38.7	10.3	[1] 7.4	[1] 2.2	[1] 8.3	[1] 12.4	[1] 8.9	[1] 12.7
Clothing	33.8	48.3	84.2	96.7	73.5	49.0	22.6	13.9	6.7	4.9	5.5
Housing	.2	.8	12.8	13.6	25.0	27.6	28.2	28.5	30.3	31.0	33.6
Fuel and light	10.0	5.6	11.0	26.9	34.1	15.7	15.6	42.4	35.6	35.2	58.2
Furniture and furnishings	25.7	30.5	51.1	75.5	66.7	39.7	25.2	22.3	16.7	15.8	15.7
Miscellaneous	20.4	21.8	40.3	47.6	53.4	52.3	48.2	47.3	44.4	44.0	43.6
Total	17.3	21.1	35.2	47.1	34.7	21.7	18.3	15.3	11.8	12.7	12.5

Denver, Colo.

Food	20.0	20.7	26.0	41.5	7.9	[1] 13.1	[1] 7.8	18.8	[1] 17.6	[1] 14.2	[1] 17.2
Clothing	40.1	53.2	82.1	96.8	78.3	53.9	33.7	27.7	18.3	15.3	15.9
Housing	12.8	21.8	33.5	51.9	69.8	76.9	80.1	82.6	84.4	84.8	85.0
Fuel and light	8.1	8.4	19.6	22.3	47.1	37.5	40.0	39.7	33.1	32.8	41.4
Furniture and furnishings	22.6	31.3	46.3	60.2	58.9	42.5	32.5	27.9	21.1	20.4	20.0
Miscellaneous	14.8	17.7	32.3	35.4	38.8	42.8	44.1	43.1	40.2	38.1	37.7
Total	20.7	25.3	38.2	50.3	38.7	26.9	26.1	24.5	18.5	18.8	18.1

Indianapolis, Ind.

Food	17.8	16.4	28.2	49.0	11.0	[1] 10.1	[1] 2.1	[1] 8.4	[1] 13.4	[1] 9.9	[1] 13.2
Clothing	32.4	40.1	73.8	87.9	72.3	45.8	21.5	16.2	10.9	7.9	8.3
Housing	1.6	2.6	11.6	18.9	32.9	37.4	41.4	43.8	42.2	41.3	41.7
Fuel and light	19.8	16.7	27.3	45.6	60.3	49.4	47.5	42.5	34.8	44.9	71.3
Furniture and furnishings	18.9	24.8	48.4	67.5	63.0	35.3	25.0	22.5	13.9	13.7	14.2
Miscellaneous	21.9	26.8	38.2	40.5	47.5	47.4	46.5	46.2	45.8	45.4	46.0
Total	19.1	21.1	36.5	50.2	37.6	23.9	22.6	19.3	15.3	16.4	17.1

Kansas City, Mo.

Food	17.3	15.1	24.5	44.9	10.2	[1] 8.3	[1] 4.3	[1] 6.6	[1] 15.7	[1] 13.5	[1] 16.1
Clothing	40.7	44.7	89.9	104.5	76.3	52.3	27.9	24.1	17.4	15.9	14.7
Housing	5.4	6.7	26.0	29.4	63.9	65.0	66.2	69.7	64.8	59.4	57.8
Fuel and light	18.0	9.6	27.5	35.2	55.1	43.3	43.7	42.6	36.0	36.3	47.1
Furniture and furnishings	31.1	37.9	61.8	73.0	68.7	50.0	32.8	26.2	15.2	11.6	10.3
Miscellaneous	15.6	20.8	31.5	37.1	40.3	40.4	38.2	37.6	33.1	32.3	32.4
Total	19.6	20.6	38.2	51.0	39.5	27.3	23.9	22.5	15.3	15.0	14.2

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 13 CITIES FROM DECEMBER, 1917, TO SEPTEMBER, 1922—Continued.

Memphis, Tenn.

Item of expenditure.	Per cent of increase from December, 1917, to—										
	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	20.3	22.7	28.4	38.8	7.0	[1] 14.2	[1] 9.2	[1] 11.2	[1] 16.1	[1] 15.1	[1] 17.7
Clothing	27.7	38.3	66.2	77.5	59.0	36.1	20.2	15.3	9.3	7.3	7.0
Housing	[2]	8.2	23.1	35.9	66.2	79.7	77.7	77.3	75.5	74.8	73.9
Fuel and light	26.8	23.4	34.1	49.7	105.4	64.5	66.1	67.1	61.8	56.3	70.4
Furniture and furnishings	25.4	30.7	53.2	67.1	53.9	29.9	19.2	14.7	8.9	6.8	7.8
Miscellaneous	16.1	20.9	28.3	38.8	43.2	42.9	42.2	42.3	39.9	37.8	37.8
Total	18.3	23.3	35.2	46.4	39.3	26.7	25.1	23.2	19.2	18.2	17.9

Minneapolis, Minn.

Food	17.7	21.4	34.1	50.0	13.0	[1] 7.9	[1] 3.5	[1] 4.9	[1] 10.0	[1] 6.0	[1] 9.9
Clothing	33.5	40.1	67.0	76.7	63.6	41.0	18.4	14.3	9.7	7.9	6.0
Housing	[1] .1	[1] 2.0	8.0	10.7	36.8	39.0	44.0	46.7	46.7	44.6	46.2
Fuel and light	14.7	13.4	22.4	36.9	60.3	52.8	50.5	50.2	43.7	43.7	44.8
Furniture and furnishings	18.1	23.6	45.6	65.5	65.8	43.3	30.5	27.9	21.9	21.4	21.3
Miscellaneous	12.3	15.9	25.4	31.3	37.6	37.9	37.3	37.4	34.5	32.6	32.5
Total	15.8	18.8	32.7	43.4	35.7	23.7	21.6	20.7	17.0	17.3	15.9

New Orleans, La.

Food	16.6	17.4	21.1	28.6	10.7	[1] 10.7	[1] 6.4	[1] 9.3	[1] 12.0	[1] 12.8	[1] 13.7
Clothing	36.8	48.8	83.2	94.9	69.4	45.0	29.2	24.9	18.9	15.6	15.4
Housing	[2]	.1	10.8	12.9	39.7	46.7	49.5	57.9	58.2	58.5	58.7
Fuel and light	19.7	20.8	24.7	36.3	41.5	29.2	36.2	40.4	31.8	33.4	30.7
Furniture and furnishings	23.8	30.0	57.7	75.9	63.9	47.7	30.7	28.5	20.8	17.9	17.7
Miscellaneous	15.9	17.5	35.1	42.8	57.1	58.2	61.0	60.2	59.1	58.6	55.6
Total	17.9	20.7	33.9	41.9	36.7	23.8	23.8	22.7	19.9	18.9	17.8

Pittsburgh, Pa.

Food	18.8	16.2	25.1	36.5	14.3	[1] 8.8	[1] 3.0	[1] 5.6	[1] 14.4	[1] 12.2	[1] 11.7
Clothing	35.9	45.3	82.8	91.3	75.4	50.7	27.2	23.6	19.3	17.3	14.0
Housing	7.6	13.5	15.5	34.9	35.0	55.5	55.5	55.3	55.3	56.7	56.7
Fuel and light	9.2	9.4	9.8	31.7	64.4	59.8	55.6	66.2	66.0	66.0	73.0
Furniture and furnishings	26.3	34.1	63.1	77.4	78.1	58.2	36.2	31.6	23.7	20.1	22.0
Miscellaneous	16.3	16.7	28.3	41.2	46.3	48.6	47.6	48.0	44.4	43.4	42.8
Total	19.8	21.8	36.2	49.1	39.3	27.7	24.4	22.8	17.4	17.8	17.6

Richmond, Va.

Food	20.5	20.6	23.1	36.1	11.9	[1] 7.4	[1] 1.0	[1] 2.9	[1] 10.2	[1] 7.8	[1] 10.8
Clothing	33.8	42.3	78.6	93.6	69.0	43.8	24.2	21.2	15.9	12.9	10.6
Housing	1.0	3.6	9.8	12.5	25.9	29.4	33.0	34.1	34.2	34.5	35.4
Fuel and light	11.8	11.4	18.7	36.1	62.2	47.1	46.7	46.8	36.7	33.4	44.5
Furniture and furnishings	26.3	28.6	55.9	75.4	70.0	48.8	36.0	33.0	28.1	27.6	27.5
Miscellaneous	9.0	13.5	24.0	32.4	36.0	38.7	38.4	38.4	35.5	34.7	34.6
Total	17.9	20.6	32.0	43.8	33.3	20.2	19.5	18.3	12.9	13.2	12.1

[1] Decrease. [2] No change.

TABLE 3.—CHANGES IN COST OF LIVING IN 13 CITIES FROM DECEMBER, 1917, TO SEPTEMBER, 1922—Concluded.

St. Louis, Mo.

Item of expenditure.	Per cent of increase from December, 1917, to—										
	Dec., 1918.	June, 1919.	Dec., 1919.	June, 1920.	Dec., 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	18.0	16.1	26.2	46.2	8.8	[1] 10.1	[1] 4.5	[1] 11.6	[1] 14.0	[1] 12.1	[1] 13.8
Clothing	32.4	39.3	78.1	89.7	70.0	43.8	21.2	17.2	9.1	7.9	6.2
Housing	2.7	3.8	16.8	29.8	42.4	52.5	61.2	63.8	64.1	65.7	67.0
Fuel and light	4.8	3.7	8.2	19.6	42.6	30.9	29.5	33.4	30.9	32.3	44.3
Furniture and furnishings	21.8	32.5	52.9	73.1	70.2	43.5	25.1	19.2	14.3	12.8	12.3
Miscellaneous	14.5	15.7	30.3	37.6	43.2	42.1	42.0	40.6	34.7	33.2	33.1
Total	16.7	17.9	34.2	48.9	35.4	23.1	22.0	18.5	14.7	15.1	15.0

Scranton, Pa.

Food	21.3	18.1	26.9	41.4	17.8	[1] 4.0	2.8	4.1	[1] 6.8	[1] 6.7	[1] 9.0
Clothing	34.4	49.6	82.1	97.7	76.5	54.3	31.3	29.1	25.2	24.2	21.1
Housing	.5	6.2	2.4	17.2	18.5	41.5	42.2	44.6	46.6	52.8	53.1
Fuel and light	24.7	25.7	31.5	43.5	67.3	62.8	64.8	67.1	65.8	68.0	69.3
Furniture and furnishings	27.0	35.6	48.9	62.8	62.0	48.6	34.6	30.7	25.7	24.2	25.4
Miscellaneous	21.4	24.9	34.7	47.9	50.4	54.6	53.8	52.4	50.1	49.9	49.3
Total	21.9	25.0	37.1	51.5	39.1	28.2	26.3	26.3	20.4	20.9	19.4

[1] Decrease.

The following table shows the changes in the cost of living in the United States from 1913 to September, 1922. These figures are a summarization of the figures for the 32 cities which appear in the preceding tables, computed on a 1913 base.

TABLE 4.—CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913 TO SEPTEMBER, 1922.

Item of expenditure.	Per cent of increase from 1913 (average) to—														
	Dec. 1914.	Dec. 1915.	Dec. 1916.	Dec. 1917.	Dec. 1918.	June, 1919.	Dec. 1919.	June, 1920.	Dec. 1920.	May, 1921.	Sept., 1921.	Dec., 1921.	Mar., 1922.	June, 1922.	Sept., 1922.
Food	5.0	5.0	26.0	57.0	87.0	84.0	97.0	119.0	78.0	44.7	53.1	49.9	38.7	41.0	39.8
Clothing	1.0	4.7	20.0	49.1	105.3	114.5	168.7	187.5	158.5	122.6	92.1	84.4	75.5	72.3	71.3
Housing	[1]	1.5	2.3	.1	9.2	14.2	25.3	34.9	51.1	59.0	60.0	61.4	60.9	60.9	61.1
Fuel and light	1.0	1.0	8.4	24.1	47.9	45.6	56.8	71.9	94.9	81.6	80.7	81.1	75.8	74.4	83.8
Furniture and furnishings	4.0	10.6	27.8	50.6	113.6	125.1	163.5	192.7	185.4	147.7	124.7	118.0	106.2	102.9	102.9
Miscellaneous	3.0	7.4	13.3	40.5	65.8	73.2	90.2	101.4	108.2	108.8	107.8	106.8	103.3	101.5	101.1
Total	3.0	5.1	18.3	42.4	74.4	77.3	99.3	116.5	100.4	80.4	77.3	74.3	66.9	66.6	66.3

[1] No change.

List of Articles on Cost of Living in the United States Published in Monthly Labor Review.

FROM time to time articles on the cost of living have been published in the various issues of the MONTHLY LABOR REVIEW, and in order that the information contained in these articles may be readily accessible for reference the following list has been compiled:

ARTICLES ON COST OF LIVING IN THE UNITED STATES PUBLISHED IN MONTHLY LABOR REVIEW.

Subject.	Issue of Review.	Page.
Analysis of some effects of increased cost of living on family budgets, by Royal Meeker and Dorothea D. Kittredge.	July, 1920	1
Changes in cost of living (prices):		
District of Columbia—		
December, 1916, to April, 1919	June, 1919	117
1913 to November, 1919	January, 1920	98
December, 1914, to June, 1920	October, 1920	65
Shipbuilding centers—		
Philadelphia, 1914 to 1917	March, 1918	112
New York, 1914 to 1917	April, 1918	151
Gulf and South Atlantic cities, 1914 to 1917	June, 1918	99
North Atlantic cities, December, 1914, to March, 1918	August, 1918	132
Pacific coast cities, December, 1914, to June, 1918	September, 1918	115
Great Lakes cities, December, 1914, to August, 1918	October, 1918	112
Norfolk, Baltimore, Boston, Portsmouth, N. H., and Portland and Bath, Me., December, 1914, to August, 1918.	do	117
18 cities, December, 1914, to December, 1918	May, 1919	166
18 cities, December, 1914, to June, 1919	September, 1919	107
United States—		
1913 to October, 1919	January, 1920	97
1913 to June, 1920	October, 1920	65
Various cities—		
13 cities, December, 1917, to June, 1919	September, 1917	110
14 cities, December, 1914, to December, 1919	May, 1920	84
13 cities, December, 1917, to December, 1919	June, 1920	76
4 cities, December, 1914, to December, 1919	do	78
18 cities, December, 1914, to June, 1920	September, 1920	75
13 cities, December, 1917, to June, 1920	do	80
19 cities, December, 1914, to December, 1920	February, 1921	52
13 cities, December, 1917, to December, 1920	do	57
19 cities, December, 1914, to May, 1921	July, 1921	105
13 cities, December, 1917, to May, 1921	do	110
19 cities, December, 1914, to September, 1921	November, 1921	76
13 cities, December, 1917, to September, 1921	do	81
19 cities, December, 1914, to December, 1921	February, 1922	56
13 cities, December, 1917, to December, 1921	do	61
19 cities, December, 1914, to March, 1922	May, 1922	68
13 cities, December, 1917, to March, 1922	do	74
19 cities, December, 1914, to June, 1922	August, 1922	64
13 cities, December, 1917, to June, 1922	do	69
Consumption of food by average workingmen's families	May, 1922	77
Cost of living in coal-mining towns	April, 1922	9
Cost of living in the District of Columbia:		
Families—		
Income and expenditures	October, 1917	1
Expenditures	November, 1917	1
Food	December, 1917	1
Food budgets of 88 families	September, 1918	112
Wage-earning women—		
Who they are and what they do	January, 1918	1
Clothing	February, 1918	1
Food, housing, and sundries	March, 1918	1
Expenditures, case studies of	April, 1918	41
Cost of living in shipbuilding centers:		
Philadelphia	March, 1918	112
New York	April, 1918	151
Gulf and South Atlantic cities	June, 1918	99
North Atlantic cities	August, 1918	132
Pacific Coast cities	September, 1918	115
Great Lakes cities	October, 1918	112
Food	December, 1918	115
Cost of living in the United States:		
North Atlantic Coast cities	May, 1919	147
North Central cities	June, 1919	101
Southern and Western cities	July, 1919	75
All cities	August, 1919	117
Expenditures for clothing and miscellaneous articles	November, 1919	1
Family incomes and sources of same	December, 1919	29

ARTICLES ON COST OF LIVING IN THE UNITED STATES PUBLISHED IN MONTHLY LABOR REVIEW—Concluded.

Subject.	Issue of Review.	Page.
Cost of living in the United States—Concluded.		
Expenditures for furniture, etc.	January, 1920	27
Expenditures for housing and for fuel and light	September, 1920	83
Food costs in various cities, by Prof. William F. Ogburn	August, 1919	1
Rents in various cities, by Prof. William F. Ogburn	September, 1919	9
Consumption of food by workingmen's families	May, 1922	77
Improbability of decrease in prices and cost of living, by Royal Meeker	February, 1920	95
Increased cost of living, July, 1914, to June, 1919, in the United States, by Hugh S. Hanna.	October, 1919	1
Minimum quantity budget necessary to maintain a worker's family of five in health and decency.	June, 1920	1
Possibility of compiling a cost-of-living index, by Royal Meeker	March, 1919	1
Quantity and cost of clothing purchased by the average workingman's family in one year.	September, 1922	49
Quantity and expenditures for furniture and house furnishings, and expenditures for miscellaneous items purchased by the average workingman's family in one year.	October, 1922	47
Relation of cost of living to the public health (a standard minimum of health budget).	January, 1919	1
Tentative quantity-cost budget for family of 5, Washington, D. C	December, 1919	22
Tentative quantity-cost budget for single man or woman, Washington, D. C	January, 1920	35
What is the American standard of living? By Royal Meeker	July, 1919	1
Miscellaneous.		
Changes in cost of living, July, 1914, to November, 1919 (National Industrial Conference Board report).	May, 1920	88
Cost of living:		
Cincinnati	May, 1921	45
Dallas, Tex. (Dallas Wage Commission)	July, 1917	136
Kansas, wage-earning women	June, 1922	58
Massachusetts, 1919–20	August, 1920	66
—— July to December, 1921	June, 1922	60
—— Lawrence, 1919, family of 5	March, 1920	71
New York, clothing, 100 families	September, 1918	118
—— November, 1920	February, 1921	61
—— unskilled laborers' families	July, 1917	138
—— Rochester, 1921 and 1922	June, 1922	60
Washington, Spokane (Chamber of Commerce)	February, 1919	113
Methods of determining the cost of living	May, 1922	85
Rents in the District of Columbia	January, 1921	96

Chilean Index of Commodity Prices.[1]

THE Chilean Statistical Office has recently published a series of index numbers showing the increase in the cost of living in that country since 1913. This is said to be the first attempt in Chile to form an index of living costs. The method of constructing the index is described as follows: The Statistical Office has taken an estimated unit of consumption of the principal factors of everyday life for a family of moderate circumstances and by assigning to each a value in terms of the money needed for its purchase during each of the years 1913 to 1922 has constructed an index from the total of such fundamentally necessary expenditures. The cost of house rent is based upon information furnished by one of the most reliable real estate agents, that for food upon wholesale prices paid by the public charities and other organizations to whose records the office had access, plus a surcharge of 30 per cent representing retailers' profits. The value of clothing was obtained from an importing firm, and the other items from the records of public-service corporations. No attempt is made to include medical and dental services, laundry, servant hire, and the like, but it is believed that these increased in practically the same ratio as the items scheduled.

[1] La Información, Santiago, July, 1922, pp. 299–303; and a report of the United States commercial attaché at Santiago, under date of May 9, 1922.

Conditions peculiar to Chile made it advisable to base the figures on the requirements of a family of moderate circumstances rather than on those of a laborer's family. Such a family would be able to buy the necessary food, clothing, and conveniences, but would have to use strict economy in so doing. A family consisting of father and mother, adolescent son and daughter, two younger children, and a maid would now require 15,068 pesos to defray the necessary expenses which could have been met by an expenditure of 9,111 pesos in 1913.

With respect to the relation between the rise in cost of living and the depreciation of the peso, it is said that as between 1913 and 1922 the cost of living advanced almost exactly proportionate to the fall in the exchange value of the peso, but this does not hold true for intervening years.

The group of domestic food articles consists of meat, fat, bread, flour, milk, butter, potatoes, beans, coarse corn meal, lentils, chick peas, dried peas, salt, and eggs. The imported food articles are oil, granulated sugar, Brazilian coffee, tea, India rice, red salmon, boned codfish, and whole pepper. The beverages are wine and beer.

The following table gives the actual price and index number for each group of items entering into the typical family budget, as well as for the total budget. The prices are given in paper pesos, which are nominally but not actually equivalent to the gold peso (36.5 cents, par) and are inconvertible. An exchange rate of 5 paper pesos to the dollar is ordinarily considered normal. The present rate of exchange is considerably lower. The figures for 1922 are of course only for the early months of the year.

CHANGES IN THE COST OF LIVING OF A FAMILY IN MODERATE CIRCUMSTANCES, IN CHILE, FROM 1913 TO 1922.

[The exchange rate of a paper peso is normally about 20 cents; 1 kilometer=0.62 mile.]

Actual prices.

Item.	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
	Pesos.	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*	*Pesos.*
House (rent and drinking water)	3,372	3,372	3,372	3,676	3,980	4,284	4,588	4,892	5,196	5,196
Light and heat	815	859	885	1,028	988	1,069	1,217	1,355	1,590	1,707
Food, domestic	2,247	2,584	2,734	2,432	2,523	2,615	2,994	3,584	3,279	3,098
Food, imported	378	457	481	473	415	502	767	785	771	817
Beverages	552	502	502	588	588	588	588	686	710	735
Clothing and house furnishings	1,494	1,640	2,165	2,308	2,474	2,607	2,787	3,023	3,171	3,171
Railway transportation, second class (15 trips of 100 kilometers each)	53	75	84	75	60	62	75	80	113	144
Street railway transportation, Santiago (2,000 trips)	200	200	200	200	200	200	200	200	200	200
Total	9,111	9,689	10,423	10,480	11,228	11,927	13,216	14,605	15,030	15,068

Index numbers.

House (rent and drinking water)	100	100	100	109	118	127	136	145	154	154
Light and heat	100	105	109	126	121	131	149	166	195	209
Food, domestic	100	115	122	108	112	116	133	160	146	138
Food, imported	100	121	127	125	110	133	203	208	204	216
Beverages	100	91	91	107	107	107	107	124	129	133
Clothing and house furnishings	100	110	145	154	166	174	187	202	212	212
Railway transportation, second class (15 trips of 100 kilometers each)	100	142	158	142	113	117	142	151	213	272
Street railway transportation, Santiago (2,000 trips)	100	100	100	100	100	100	100	100	100	100
Total	100	106	114	115	123	131	145	160	165	165

WAGES AND HOURS OF LABOR.

Index Numbers of Changes in Union Wage Scales, 1907 to 1922.

THE extent of the changes that have taken place from 1907 to 1922, inclusive, in union scales of wages and hours of labor, all trades combined, are shown in the following table of index numbers compiled from data assembled for a forthcoming bulletin of the United States Bureau of Labor Statistics on "Union scale of wages and hours of labor, May 15, 1922." These index numbers are simply percentages that the scale each year is of the scale in effect in 1913 which is taken as the base or 100. The figures apply to the scale in effect in May of each year, and not to yearly averages.

From 1907 to 1921 there was an increase in the index number of rates of wages per hour from 90 to 205; that is, the 1921 rate is 205 per cent of that of 1913 or, as computation shows, 228 per cent of the rate of 1907. From 1921 to 1922 the index number dropped from 205 to 193, making the rate 193 per cent of that of 1913, and 214 per cent of that of 1907. In studying the table it must be kept in mind that the figures are not actual money rates or hours of labor, but index numbers computed from such rates and hours. The detailed data for 1922 and additional figures for earlier years will appear in the bulletin.

The data included in these index numbers cover the principal organized trades paid at time rates in 66 large industrial centers, having over 800,000 members in 1922. Trades generally paid at piece rates are not included. Piece rates are so variant and the unit of payment often so technical that a compilation of piece rates has not been undertaken.

The table follows:

INDEX NUMBERS OF UNION WAGE RATES AND HOURS OF LABOR IN THE UNITED STATES AS OF MAY EACH YEAR, 1907 TO 1922.

[1913=100.]

Year.	Rates of wages per hour.	Full-time hours per week.	Rates of wages per week, full time.
1907	90	103	92
1908	91	102	93
1909	92	102	93
1910	94	101	95
1911	96	101	96
1912	98	100	98
1913	100	100	100
1914	102	100	102
1915	103	99	102
1916	107	99	106
1917	114	98	112
1918	133	97	130
1919	155	95	148
1920	199	94	189
1921	205	94	193
1922	193	94	183

Premium Wage Situation in the Closed-Shop Branch of the Printing Industry.

By G. A. Bowers, Director, Bureau of Industrial Relations, New York Employing Printers' Association.

THE object of this survey and report has been to make available to members of the closed-shop branch of the printing industry certain facts bearing on the industry, and to provide wage data which may have value in the employment of workmen.

Scope and Method.

THE 225 members of the closed-shop branch of the industry represent an annual pay roll of approximately $20,000,000. Of this amount about 42 per cent represents periodical work, 54 per cent book and job work, and 4 per cent machine-composition work.

Questionnaires were sent to all members, asking for the number of workmen in various crafts and the rates of wages paid, and containing also the following questions:

1. Why do you pay premium wages?
2. Do you think premium wages are desirable for the industry as a recognition of skill and production?
3. Would a uniform weekly wage rate produce desirable results?
4. Have you any accurate measure of the productive capacity of each man in your shop?
5. Do you use this measure in determining wages?
6. Would the development of such a measure for the industry be of value in determining premium wages.
7. Do you have any other plans for payment, voluntary or regular, to employees in addition to the wages listed on the following pages?
8. What are the essential features of your plan?

Reports were received from 115 members; 103 of these reports were usable in compiling answers to the list of questions, and 97 supplied reliable wage data. The 97 members included 29 job printing plants, 44 periodical printing plants, and 24 machine composition plants. The individual returns were confidential and have been used only in group form.

A separate study, made in a similar manner, supplied the apprenticeship data contained in this report.

Analysis of Data.

Wages Paid.

All crafts.—The number and percentage of men of the various unions classified into wage groups are shown in the following table:

NUMBER OF MEN IN EACH WAGE GROUP, BY UNIONS.

Union.	Men receiving classified wages.								Total reported.
	Union scale.		$1 to $5 over scale.		$6 to $10 over scale.		More than $10 over scale.		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Typographical Union No. 6:									
Hand compositors	781	62.5	400	32.0	55	4.4	14	1.1	1,250
Machine compositors	69	10.9	414	65.5	137	21.6	13	2.0	633
Total	850	45.2	814	43.2	192	10.2	27	1.4	1,883
Job Pressmen and Job Press Feeders' Union No. 1	107	49.7	66	30.7	30	14.0	12	5.6	215
Paper Cutters' Union No. 119	168	53.2	118	37.3	22	7.0	8	2.5	316
Pressmen's Union No. 51	475	61.2	251	32.3	40	5.1	11	1.4	777
Paper Handlers' Union No. 1	90	60.8	53	35.8	3	2.0	2	1.4	148
Press Assistants' Union No. 23	551	77.4	149	20.9	12	1.7	.....	.....	712
Mailers' Union No. 6	74	97.4	1	1.3	.....	.....	1	1.3	76
Total, all crafts	2,315	56.1	1,452	35.2	299	7.2	61	1.5	4,127

This total of 4,127 workers in the crafts named represent between 20 and 25 per cent of the total number employed in New York City. Reports received were from representative plants of the book, job, and periodical industry and therefore constitute a fair sample or cross section of the industry in New York City as to the actual rates of wages paid.

The basic weekly scales for the crafts involved in this survey are:

Typographical Union No. 6—Hand and machine compositors	$50.00
Pressmen's Union No. 51:	
Cylinder pressmen	44.00
Web pressmen	50.00
Paper Cutters' Union No. 119	38.00
Press Assistants and Feeders' Union No. 23	36.50
Job Pressmen and Job Press Feeders' Union No. 1	36.00
Mailers' Union No. 6	35.00
Paper Handlers' Union No. 1	31.00

Composing room.—The hand compositors and machine compositors form two distinct wage groups within the composing room. Of the hand compositors, 62.5 per cent are paid the scale, 32 per cent receive from $1 to $5 above the scale, and 4.4 per cent receive from $6 to $10 above the scale. On the contrary, 10.9 per cent of the machine men work at the scale, 65.5 per cent receive premium wages of $1 to $5 above the scale, and 21.6 per cent receive from $6 to $10 above the scale.

The hand compositors compare very closely with cylinder pressmen in the matter of premium wages, there being 61.2 per cent of the pressmen who work at the scale and 32.3 per cent who receive from $1 to $5 above the scale. It should be borne in mind that the basic scale at the time of this survey for compositors was $50 and for cylinder pressmen $44.

Premium wages are far more prevalent among compositors than in any other branch of the industry. There are no machine-composition offices reporting which do not pay premium wages. Three plants reporting pay no premium wages in any department; two other plants

pay premium wages in the composing room but not in the pressroom, and one other plant pays premium wages in the pressroom but not in the composing room.

Taking machine compositors as a group, less than 11 per cent are working at the scale. In the machine-composition plants, there are, in fact, only 12 men out of 145 reported, or 8 per cent, who work at the scale. In the periodical plants 11 per cent of the machine compositors work at the basic scale, while in the job plants 13.3 per cent work at the scale. Not only do more men receive premium wages in the machine-composition plants, but the general premium is higher. In the periodical and book and job plants only 15 per cent of the machine compositors receive more than $5 above the scale, while in the machine-composition plants 58 per cent get more than $5 above the scale.

Pressroom.—The difference between the amounts of premium wages for different classes of pressmen is not so great. A slightly larger number of web pressmen work at the scale than do cylinder pressmen. There is a smaller number of cylinder pressmen in the periodical plants who work at the scale than in the job plants. In the job plants 16.2 per cent of the cylinder pressmen receive premiums from $6 to $10 and 12.2 per cent premiums of over $10, whereas in the periodical plants only 4.9 per cent receive premiums of from $6 to $10 and only 1.2 per cent of more than $10. It is significant also to note that approximately 90 per cent of brakemen and tension men on web presses work at the scale.

The Job Pressmen's Union No. 1, which has been considerably disorganized through dissension within its ranks, has, nevertheless, a large portion of its membership working at premium wages. Job pressmen in this respect rank next to machine compositors.

Cylinder press assistants and feeders have a very high number (77.4 per cent) working at the scale, and practically all of the remaining workers receive less than a $5 premium wage.

Paper Handlers' Union No. 1 has 58 men, or 39.2 per cent of the 148 reported, receiving more than the basic scale.

Bindery.—In Paper Cutters' Union No. 119 an even balance exists between the basic scale workers and premium wage workers; 53.2 per cent work at the basic scale; 37.3 per cent receive from $1 to $5 above the basic scale; 7 per cent, $6 to $10 above scale, and 2.5 per cent more than $10.

As stated below, the mailers are practically all working at the basic scale.

No attempt was made to learn the actual rates paid bindery girls. It is generally understood that the same condition exists in this branch, represented by Bindery Women's Union No. 43, as in the Mailers' Union.

Basis of Premium Wages.

There are at least four factors which determine the proportion of men who work at the basic scale in the various unions.

1. Skill required.
2. Supply of workmen and facilities for training apprentices.
3. Control of union organization over its membership.
4. Scale differentials.

For example, the members of Mailers' Union No. 6 who perform a relatively unskilled task, and who for this and other reasons constitute an organization which has little control in the book and job industry over its own members in the maintenance of standard working conditions and scales, has the highest percentage (97.4) of men working at the scale. On the contrary, machine compositors in Typographical Union No. 6 who have acquired a considerable technical skill in the operation of typesetting machines, who are comparatively limited in number, and who belong to a compact group within a well-disciplined union, have only 10.9 per cent of their number working at the basic scale. Both of these organizations are locals of the International Typographical Union.

The answers from the employers included in this survey indicated that 80 per cent were favorable to premium wages, stating that "they are desirable as a recognition of skill and production." The same question asked in another form indicated that 75 per cent think that "a weekly rate would not produce desirable results."

In answer to the question "Why do you pay premium wages?" the replies indicated an evenly divided opinion. Fifty per cent gave as the reason for paying premium wages that "Some men are worth more" or "Get better cooperation from premium men," while the remaining 50 per cent stated that they "Can not get good men for the scale" or "Pay premium wages because everyone else does."

A few stated that premiums were paid in the pressroom because of the typographical scale. Some confusion seemed to exist in the minds of those answering the question "Have you any accurate measure of productive capacity of each man in your shop?" More than half of the employers stated that they have an accurate measure and that these measures are used in determining premium wages. In all probability most of the measures used are only approximations and not accurate standards. Practically all agree that the development of accurate measures for determining premium wages are desirable. A few, however, do not think that a satisfactory measure of production can be developed in the printing industry.

At present the bargaining ability of the individual workman, or the employer, considering also the supply of workmen, governs the amount of premium wages paid in all departments of the industry. In only a few plants is an accurate record kept upon which the man's premium scale can be based. There are a few large plants in this industry outside of New York which have found workable units of measure for practically all classes of printing work. There are many difficulties, however, in the average printing plant, and particularly in small printing plants, which make it practically impossible so to measure production that premium wages can be based upon the output of the workman. The judgment of the employer and the bargaining ability of the workman must in these cases continue to be the guide in determining premium wages.

Apprenticeship Situation.

The supply of competent workmen in the skilled crafts, such as those of compositors, cylinder and job pressmen, and operators of certain bindery machines, depends largely upon a systematic apprenticeship system.

The apprenticeship committee of the closed-shop branch of the printing industry recently made a study of the number of apprentices employed in the composing room and pressroom. The 80 plants employed nearly 1,500 journeyman compositors and nearly 1,000 pressroom workers, of whom less than half were skilled journeymen, the remainder being feeders and assistants.

In the pressrooms of the 80 plants where no organized training of apprentices exists there were only 25 job and cylinder press apprentices. The supply of skilled pressmen obviously comes from the ranks of feeders and assistants who through their own initiative acquire the skill and experience necessary to hold positions as journeymen. Within the pressroom, therefore, there is no intelligent control over the number of men being trained and no orderly plan for giving apprentices the kind of training needed to develop skilled journeymen.

In the composing rooms of these same plants, where a careful plan of training is being successfully operated, there were 174 apprentices registered under a five-year course of "instruction." This number constitutes nearly 90 per cent of the quota permitted under the rule of one apprentice to each seven journeymen or major fraction thereof. The training of composing-room apprentices is carried on under the direction of a joint committee from the closed-shop branch and Typographical Union No. 6.

The composing-room training program has not yet developed an adequate number of machine compositors to keep pace with the development of typesetting machines. The joint committee is working actively on this problem.

The number of apprentices who become journeymen each year has a close relation to the total supply of skilled men and therefore is an important factor in the general level of premium wages.

If, for example, the man of average skill and usefulness is entitled to earn the basic scale, and if 50 per cent or 60 per cent of all journeymen are average workers, as indicated roughly by the fact that this range of percentage represents the proportions of men working at the scale in all skilled crafts except machine compositors, then the proper proportion of premium men in a skilled craft is 40 to 50 per cent. Under these conditions the proper number of apprentices who complete their training each year should equal approximately the number leaving the industry through death, disability, and other causes.

Summary.

AN EFFORT has been made in this report merely to present in a combined form the data and information submitted by members of the closed-shop branch of the industry. The interpretation of this material, such as a statement of reasons why high premium wages are paid in some departments and practically no premium wages in other departments, has been left to the reader.

The most significant points in this survey are:

Machine compositors receive the highest premiums of all groups and have the largest proportion receiving more than the basic scale.

A higher proportion of hand compositors are paid the basic scale than any craft except mailers and cylinder feeders.

The apprenticeship training of hand compositors is well organized and is operating with success. Opportunities for training machine compositors are very limited.

Cylinder pressmen requiring primary skill have the same percentage of premium men as paper handlers, who are little more than porters.

Cylinder feeders with 77.4 per cent and mailers with 97.4 per cent working at the basic scale are least benefited by premium wages.

Thirty-four per cent of all workers receive premiums of from $1 to $5 above the basic scales, and 56 per cent work at the basic scales.

There is no organized procedure for training pressroom workers as in the case of the composing room.

Of the employers reporting, 75 to 80 per cent believe that premium wages are desirable for the industry.

Practically all agree that the development of accurate measures for determining premium wages are desirable. However, a few think that a satisfactory measure of production can not be developed in the printing industry. At present the bargaining ability of the individual workman, or of the employer considering also the supply of workmen, governs the amount of premium wages paid in all departments of the industry. In only a few plants is an accurate record kept upon which the man's premium scale can be based. There are a few large plants in this industry outside of New York which have found workable units of measure for practically all classes of printing work. There are so many difficulties, however, in the average printing plant and particularly in small printing plants, which make it practically impossible to measure production so that premium wages can be based upon the output of the workman. The judgment of the employer and the bargaining ability of the workman must in these cases continue to be the guide in determining premium wages.

Wage Changes in Various Countries, 1914 to 1921.

THE International Labor Office has recently issued a report[1] showing changes in actual wages and in "real" wages since 1914. In the preparation of the report all the available statistics relating to wages, earnings, and cost of living were examined, but the lack of uniform statistical material limited the scope of the report.

The wage data were collected, as far as possible, from official sources, and for each wage series index numbers were calculated, taking the pre-war figure as the base, or 100. The index numbers of the "real" wages (i. e., the purchasing power of the "nominal" wages just mentioned) were then obtained by dividing the index numbers of the nominal (or money) wages by those of the cost of

[1] International Labor Office. Studies and reports, wages and hours series No. 2: Wage changes in various countries. Geneva, July, 1922. 76 pp.

living and multiplying the result by 100. The cost-of-living figures used were in most instances taken from official sources.

In the report no account has been taken of "differences in the relative efficiency of workers in different countries, of changes in their efficiency as between pre-war and post-war years, or of changes in the productive efficiency of industrial organization, in the results of which the workers may claim to share." Neither has account been taken of the need for a higher standard for many groups of workers who were seriously underpaid before the war nor of increased expenditure necessary to maintain the pre-war standard of living.

The following table, compiled from the report, shows, for each of 12 countries, the actual nominal (or money) wages, index numbers of nominal wages, and index numbers of "real" wages in certain occupations before the war and in the years 1919, 1920, and 1921:

NOMINAL AND REAL WAGES, 1914 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRIES AND OCCUPATIONS.

[£ at par=$4.8665; shilling=24.3 cents; penny=2.03 cents; krone (Austria)=20.26 cents; öre=0.25 cent; franc=19.3 cents; mark=23.82 cents; lira=19.3 cents; guilder=40.2 cents; krona (Sweden)=26.8 cents.]

Country, industry, and occupation.	Pay period.	Nominal wages. Amount. 1914 (Apr. 30).	1919 (Dec. 31).	1920 (Dec. 31).	1921 (June 30).	Nominal wages. Index numbers (1914=100). 1919 (Dec. 31).	1920 (Dec. 31).	1921 (June 30).	Index numbers of real wages. 1919 (Dec. 31).	1920 (Dec. 31).	1921 (June 30).
Australia.[1]		*s. d.*	*s. d.*	*s. d.*	*s. d.*						
Mining	Week	65 1	88 4	103 10	105 8	136	159	162	99	99	107
Engineering	do	57 0	77 6	92 5	97 11	136	162	172	99	101	113
Building trades	do	65 0	79 8	95 7	101 4	123	147	156	89	91	103
Railways	do	59 8	78 6	93 1	97 8	131	156	164	95	97	108
Shipping	do	48 10	77 9	88 0	95 3	159	180	195	115	112	128
Agriculture	do	49 5	70 3	87 1	88 0	142	176	178	103	109	117
Food, drink, etc.:											
Men	do	55 0	75 6	89 3	92 7	137	162	168	99	101	111
Women	do	22 6	34 8	41 10	43 0	151	176	190	112	116	125
Clothing, shoes, etc.:											
Men	do	52 3	73 5	86 5	91 2	140	165	172	101	102	113
Women	do	24 9	37 4	43 5	47 7	154	186	193	109	109	127
General average:											
Men	do	55 1	74 11	89 10	93 3	136	163	169	99	101	111
Women	do	27 2	37 1	44 6	47 7	136	164	176	99	102	116

		1914 (Jan. 1).	1920	1921 (June).	1922 (Feb. 1).	1920	1921 (June).	1922 (Feb. 1).	1920	1921 (June).	1922 (Feb. 1).
Austria (Vienna).[2]		*Kronen.*	*Kronen.*	*Kronen.*	*Kronen.*						
Metal trades:											
Males, skilled	do	28	1,411	1,841	.....	5039	6575	.....	75	67	.....
Males, unskilled	do	21	1,301	1,677	.....	6195	7986	.....	92	80	.....
Females	do	14	662	820	.....	4730	5857	.....	71	60	.....
Building trades:											
Bricklayers, skilled	do	34	898	2,928	22,416	2641	8611	65929	39	88	89
Bricklayers, unskilled	do	21	864	2,640	19,872	4120	12570	94628	61	128	127
Carpenters	do	37	907	3,024	23,184	2450	8170	62659	36	83	84
Joiners	do	30	1,248	2,496	20,928	4160	8320	69760	62	85	94
Textiles: Weavers	do	28	825	2,400	14,620	2946	8571	52214	44	87	70

[1] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1914=100; 1919=138; 1920=161; 1921=152.
[2] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1914=100; 1920=6700; 1921=9800; 1922=74250.

NOMINAL AND REAL WAGES, 1914 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRIES AND OCCUPATIONS—Continued.

[£ at par=$4.8665; shilling=24.3 cents; penny=2.03 cents; krone (Austria)=20.26 cents; öre=0.25 cent; franc=19.3 cents; mark=23.82 cents; lira=19.3 cents; guilder=40.2 cents; krona (Sweden)=26.8 cents.]

Country, industry, and occupation.	Pay period.	Nominal wages. Amount. 1914 (Jan. 1).	1920	1921 (June).	1922 (Feb. 1).	Nominal wages. Index numbers (1914=100). 1920	1921 (June).	1922 (Feb. 1).	Index numbers of real wages. 1920	1921 (June).	1922 (Feb. 1).
Austria (Vienna)—Concluded.											
Clothing:		*Kronen.*	*Kronen.*	*Kronen.*	*Kronen.*						
Ladies'	Week	46	1,462	3,027	22,566	3177	6580	49056	47	67	66
Men's	do	40	1,436	2,847	22,075	3590	7117	55187	53	73	74
Bakers	do	38	1,572	2,827	26,574	4136	7439	69930	62	76	94
Printers	do	38	816	2,178	21,432	2147	5731	56400	32	58	76
Bookbinders	do	27	1,140	1,915	19,953	4220	7093	60081	65	72	99
State employees:											
Active—											
Upper grades	Month	1,017	.....	17,405	125,000	.....	1712	12300	.....	17	17
Intermediate grades	do	193	.....	7,577	38,500	.....	3929	19950	.....	40	27
Low grades	do	121	.....	7,257	35,000	.....	5959	28926	.....	61	39
Retired on pension—upper grades	do	900	2,317	.....	34,084	257	.....	3787	38	16	5
		1913	1919	1920	1921	Index numbers (1913=100). 1919	1920	1921	1919	1920	1921
Canada.[3]											
Coal mining:											
Contract miners—											
Nova Scotia	Week	.....	.....	.....	.....	180	198	217	101	103	132
Alberta	do	.....	.....	.....	.....	158	213	191	88	111	116
Vancouver Island	do	.....	.....	.....	.....	156	173	166	87	90	101
Surface laborers—											
Nova Scotia	do	.....	.....	.....	.....	188	204	239	105	106	145
Alberta	do	.....	.....	.....	.....	165	210	266	92	109	101
Vancouver Island	do	.....	.....	.....	.....	183	206	175	102	107	106
General average—all districts	do	.....	.....	.....	.....	170	198	208	95	103	126
Lumbering	do	.....	.....	.....	.....	170	203	153	95	106	93
Building trades (7 classes)	do	.....	.....	.....	.....	143	172	164	80	90	99
Metal trades (5 classes)	do	.....	.....	.....	.....	165	189	166	92	98	101
Printing trades (2 classes)	do	.....	.....	.....	.....	145	182	188	81	95	114

Street railways (1 class)	do					150	179	178	83	93	108
Steam railroads (6 classes)	do					154	187	165	86	97	100
Common laborers in factories	do					180	215	191	101	112	116
						Index numbers (1914=100).					
		1914				1919	1920	1921			
Denmark (Copenhagen).[4]											
Metal trades:		Öre.	Öre.	Öre.	Öre.						
Smiths and machinists	Day [5]	555.3	[6] 1,748.0	[6] 2,048.8	[6] 1,840.0	[6] 315	[6] 369	[6] 331	[6] 149	[6] 141	[6] 139
Unskilled workers	do	436.5	[6] 1,420.0	[6] 1,649.6	[6] 1,408.0	[6] 325	[6] 378	[6] 323	[6] 154	[6] 144	[6] 137
Building trades:											
Bricklayers	do	774.0	[6] 2,320.0	[6] 2,802.0	[6] 2,400.0	[6] 300	[6] 362	[6] 310	[6] 142	[6] 138	[6] 131
Carpenters	do	753.0	[6] 2,510.0	[6] 2,796.0	[6] 2,344.0	[6] 333	[6] 371	[6] 312	[6] 158	[6] 142	[6] 132
Laborers	do	554.0	[6] 1,831.0	[6] 2,290.0	[6] 1,880.0	[6] 331	[6] 413	[6] 339	[6] 157	[6] 157	[6] 143
Textiles	do	383.0	[6] 1,209.0	[6] 1,528.0	[6] 1,272.0	[6] 316	[6] 399	[6] 332	[6] 150	[6] 152	[6] 140
Chemical industry	do	390.6	[6] 1,048.0	[6] 1,569.6	[6] 1,248.0	[6] 268	[6] 402	[6] 320	[6] 127	[6] 153	[6] 135
Transportation	do	405.0	[6] 1,168.0	[6] 1,476.8	[6] 1,192.0	[6] 288	[6] 361	[6] 294	[6] 137	[6] 138	[6] 124
Brick making (Provinces)	do	375.3	[6] 1,304.0	[6] 1,424.4	[6] 1,232.0	[6] 349	[6] 381	[6] 330	[6] 165	[6] 145	[6] 139
		1911									
France.[7]											
Coal mining:		Francs.	Francs.	Francs.	Francs.						
Underground workers (whole country)	do	[8] 5.88			[9] 18.41			[9] 313			[9] 106
Underground and surface workers (whole country)	do	[8] 4.94			[9] 16.91			[9] 342			[9] 116
Average, all workers (Rive-de-Gier)	do	5.00			[10] 24.00			[10] 480			[10] 134
Average, all workers (St. Étienne)	do	5.25			[10] 21.00			[10] 400			[10] 112
Metal trades:											
Turners (Paris)	do	8.25			[10] 28.00			[10] 340			[10] 110
Turners (other towns)	do	5.39			[10] 20.67			[10] 383			[10] 106
Ordinary labor	do	[11] 4.00			[12] 15.60			[12] 390			[12] 127
Building trades:											
Bricklayers (Paris)	do	8.55			[10] 28.00			[10] 327			[10] 107
Bricklayers (other towns)	do	4.80			[10] 19.72			[10] 411			[10] 113
Carpenters (Paris)	do	9.00			[10] 28.00			[10] 311			[10] 101
Carpenters (other towns)	do	5.05			[10] 20.24			[10] 401			[10] 110

[3] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1913=100; December, 1919=179; December, 1920=192; September, 1921=165.
[4] Index numbers of real wages in this country are computed on basis of cost-of-living index as follows: 1914=100; 1919=211; 1920=262; 1921=237.
[5] Full-time earnings.
[6] Third quarter.
[7] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1911=100; 1921—March=338, July=307, September=295.
[8] 1914, first half.
[9] Second half.
[10] First half.
[11] 1913.
[12] July.

NOMINAL AND REAL WAGES, 1914 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRIES AND OCCUPATIONS—Continued.

[£ at par=$4.8665; shilling=24.3 cents; penny=2.03 cents; krone (Austria)=20.26 cents; öre=0.25 cent; franc=19.3 cents; mark=23.82 cents; lira=19.3 cents; guilder=40.2 cents; krona (Sweden)=26.8 cents.]

Country, industry, and occupation.	Pay period.	Nominal wages.							Index numbers of real wages.		
		Amount.				Index numbers (1914=100).					
		1911	1919	1920	1921	1919	1920	1921	1919	1920	1921
France—Concluded.											
Building trades—Concluded.		*Francs.*	*Francs.*	*Francs.*	*Francs.*						
Painters (Paris)	Day	7.22			[10] 28.00			[10] 388			[10] 126
Painters (other towns)	do	4.76			[10] 19.43			[10] 408			[10] 112
Laborers (Paris)	do	5.00			[10] 18.00			[10] 360			[10] 117
Laborers (other towns)	do	3.26			[10] 14.01			[10] 430			[10] 118
Textiles:											
Weavers (average, whole country)	do	3.32			[10] 14.33			[10] 432			[10] 119
Weavers (Roubaix)	do	3.60			[10] 21.20			[10] 589			[10] 131
Spinners, cotton (Roubaix)	do	4.95			[10] 25.68			[10] 519			[10] 116
Spinners, wool (Roubaix)	do	5.85			[10] 26.24			[10] 449			[10] 100
Spinners, wool (Fourmies)	do	3.50			[10] 20.80			[10] 594			[10] 133
Agriculture: Ordinary adult male laborers	do	3.35			[10] 14.25			[10] 425			[10] 117
Civil servants (Paris), receiving, in 1911—											
3,000 francs and under	Year							[10] 389			[10] 128
Over 3,000 to 6,000 francs	do							[10] 267			[10] 81
Over 6,000 to 12,000 francs	do							[10] 210			[10] 64
Over 12,000 to 25,000 francs	do							[10] 158			[10] 48
Over 25,000 francs	do							[10] 117			[10] 36
		Pre-war.				Index numbers (pre-war=100).					
						1919	1920	1921			
Germany.[a]		*Marks.*	*Marks.*	*Marks.*	*Marks.*						
Coal mining:											
Upper Silesia	Shift	[13] 3.57	14.29	36.17	[6] 48.49	400	1,013	[6] 1,358			[6] 116
Lower Silesia	do	3.45	13.87	39.01	[6] 53.20	402	1,131	[6] 1,542		141	[6] 154
Dortmund district	do	5.15	18.13	43.42	[6] 63.19	352	843	[6] 1,227		92	[6] 121
Frankfort district	do	4.49	27.00	48.60	[14] 105.35	601	1,082	[14] 2,346	77	114	[14] 154

[1048]

Metal mining:											
Average of 222 towns—											
Skilled workers	Day	[11] 5.22	21.50	43.50	[14] 77.70	412	833	[14] 1,489		91	[14] 96
Unskilled workers	do	[11] 3.60	17.30	38.10	[14] 65.30	480	1,058	[14] 1,814		116	[14] 117
Berlin—											
Skilled workers	Week	[13] 42.44		246.45	[14] 423.15		581	[14] 997		53	[14] 52
Semiskilled workers	do	[13] 39.96		227.85	[14] 397.58		570	[14] 995		52	[14] 51
Unskilled workers	do	[13] 30.62		213.90	[14] 383.63		699	[14] 1,253		64	[14] 65
Frankfort—											
Skilled workers	Day	[11] 6.70	22.96	52.80	[14] 98.40	343	788	[14] 1,469	44	83	[14] 96
Unskilled workers	do	[11] 4.80	18.40	47.20	[14] 89.20	383	983	[14] 1,858	49	104	[14] 122
Building trades:											
Average of 20 towns—											
Bricklayers	Week	[11] 39.00		[15] 172.80			[15] 442			[15] 52	
Carpenters	do	[11] 39.60		[15] 171.36			[15] 433			[15] 51	
Laborers	do	[11] 31.20		[15] 153.12			[15] 490			[15] 58	
Berlin—											
Bricklayers and carpenters	do	[13] 43.46		[12] 316.20	[14] 546.38		[12] 728	[14] 1,257		[12] 65	[14] 65
Laborers	do	[13] 29.15		[12] 306.90	[14] 516.15		[12] 1,053	[14] 1,771		[12] 94	[14] 92
Frankfort (general average)	do	39.00		326.00	[14] 624.00		836	[14] 1,600		88	[14] 105
Textiles:											
Weavers (average, 24 towns)	do	[11] 24.60		[15] 155.52	[14] 391.00		[15] 632	[14] 1,590		[15] 75	[14] 100
Spinners (average, 17 towns)	do	[11] 25.80		[15] 150.72	[16] 288.00		[15] 584	[16] 1,116		[15] 69	[16] 105
Printing industry (Berlin)	do	[13] 34.38		262.00	[14] 506.00		762	[14] 1,472		69	[14] 76
Chemical industry (Frankfort)	Day	[13] 4.80	22.00	60.00	[14] 93.50	458	1,250	[14] 1,948	58	132	[14] 128
Bank clerks, with average minimum salary in 1917 of—											
2,165 marks (males)	Year	[11] 2,165.00		16,200.00	[14] 35,184.00		748	[14] 1,626		94	[14] 98
3,525 marks (males)	do	[11] 3,525.00		18,620.00	[14] 38,088.00		528	[14] 1,540		66	[14] 66
1,670 marks (females)	do	[11] 1,670.00		12,540.00	[14] 28,088.00		751	[14] 1,682		94	[14] 102
Government employees:											
Manual workers—											
Unskilled	Week	[11] 19.08			[16] 264.00			[16] 1,384			[16] 130
Semiskilled	do	[11] 24.24			[16] 268.80			[16] 1,109			[16] 104
Skilled	do	[11] 31.02			[16] 288.00			[16] 928			[16] 87
Officials—											
Low salaried	Year	[11] 1,640.00			[16] 13,325.00			[16] 812			[16] 76
Medium salaried	do	[11] 3,820.00			[16] 18,985.00			[16] 497			[16] 47
High salaried	do	[11] 6,500.00			[16] 28,350.00			[16] 436			[16] 41

[6] Third quarter.
[10] First half.
[11] 1913.
[a] Index numbers of real wages in this country are computed on the basis of cost-of-living index, as follows: Pre-war=100; 1920—July=842, December=916; 1921—September=1062, December=1550.
[12] July.
[13] 1914.
[14] December.
[15] February.
[16] September.

NOMINAL AND REAL WAGES, 1914 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRIES AND OCCUPATIONS—Continued.

[£ at par=$4.8665; shilling=24.3 cents; penny=2.03 cents; krone (Austria)=20.26 cents; öre=0.25 cent; franc=19.3 cents; mark=23.82 cents; lira=19.3 cents; guilder=40.2 cents; krona (Sweden)=26.8 cents.]

Country, industry, and occupation.	Pay period.	Nominal wages. Amount. 1914	1919	1920	1921	Nominal wages. Index numbers (1914=100). 1919	1920	1921	Index numbers of real wages. 1919	1920	1921
Italy.[17]		*Lire.*	*Lire.*	*Lire.*	*Lire.*						
Building trades	Day	3.89	10.75	15.38	26.00	276	395	668	135	126	173
Textiles	do	2.70			16.80			622			162
Chemical industry	do	3.39	8.68	11.76	14.76	256	347	435	125	111	112
Book printing	Week	35.10	66.96	130.52	207.41	191	371	591	84	125	154
General average	Day	3.54	8.84	13.95	18.91	250	394	535	122	126	138
		1913				Index numbers (1913=100). 1919	1920	1921			
Netherlands.[18]		*Gulden.*	*Gulden.*	*Gulden.*	*Gulden.*						
Mining (Zuid Limburg):											
Underground workers	do	[13] 2.79	6.24	7.39	7.49	224	265	268	115	122	129
Surface workers	do	[13] 1.86	4.30	4.98	5.26	231	268	283	119	124	136
Metal trades	Week	[19] 13.30	[9] 28.26	[9] 35.51	[10] 36.97	[9] 212	[9] 267	[10] 278	[9] 109	[9] 120	[10] 134
Building trades:											
Bricklayers (whole country)	do	16.50		[20] 32.48	[12] 47.84		[20] 197	[12] 290		[20] 96	[12] 139
Bricklayers (The Hague)	do	18.91			[12] 48.60			[12] 257			[12] 124
Carpenters (whole country)	do	14.40		[20] 29.96	[12] 45.08		[20] 208	[12] 313		[20] 102	[12] 150
Painters (whole country)	do	13.50		[20] 27.22	[12] 40.20		[20] 202	[12] 296		[20] 99	[12] 142
Laborers (whole country)	do	12.20		[20] 29.44	[12] 40.94		[20] 241	[12] 335		[20] 118	[12] 161
Laborers (The Hague)	do	15.25			[12] 43.20			[12] 283			[12] 136
Dredger workers: Captains, engineers, and chief dredgers (North Holland).	Day	2.75			6.08			221			106
Navy workers (North Brabant)	do	1.98			[12] 5.68			[12] 287			[12] 138
Laborers and unskilled workers	do	1.87			[12] 6.49			[12] 347			[12] 167
Gas works employees	Week	[13] 14.21		[12] 33.20	[21] 34.49		[12] 234	[21] 243		[12] 108	[21] 128
Electricity works employees	do	[13] 14.78		[12] 35.03	[21] 35.95		[12] 237	[21] 243		[12] 109	[21] 128
Sweden.[22]		*Kronor.*	*Kronor.*	*Kronor.*	*Kronor.*						
Metals and mining	Day	4.20	10.66	12.43	9.32	254	296	222	99	110	96
Building trades	do	5.32	13.60	14.50	12.60	256	273	237	100	101	103
Textiles	do	2.59	6.99	8.95	6.72	270	346	259	105	128	112

Chemical industry	...do	3.12	8.81	10.06	8.05	282	322	258	110	119	112
Agriculture	...do	2.97	8.58	9.37	6.79	289	315	229	112	117	99
General average, 12 industries	...do	3.82	10.30	11.91	9.52	269	312	249	105	116	108
		1914			Index numbers (1914=100).						
					1919	1920	1921				
Switzerland.[23]		*Francs.*	*Francs.*	*Francs.*	*Francs.*						
Bakers, cooperative	Week	36.12	.....	74.36	.....	.....	[24] 206	.....	.....	85	.....
Chauffeurs	...do	33.30	.....	65.00	.....	.....	[24] 195	.....	.....	80	.....
Transport workers, cooperative	...do	34.71	.....	77.37	.....	.....	[24] 223	.....	.....	92	.....
Gardeners, highest class	...do	37.88	.....	73.44	.....	.....	[24] 194	.....	.....	80	.....
Gardeners, lowest class	...do	29.10	.....	58.13	.....	.....	[24] 200	.....	.....	82	.....
Butchers, highest class	...do	45.13	.....	85.83	.....	.....	[24] 190	.....	.....	78	.....
Butchers, lowest class	...do	28.30	.....	67.50	.....	.....	[24] 240	.....	.....	99	.....
Clerks, highest class	Month	184.20	.....	373.50	.....	.....	[24] 203	.....	.....	84	.....
United Kingdom.[25]		£. s. d.	£. s. d.	£. s. d.	£. s. d.						
Coal mining:											
Northumberland	Week [26]	34 4	[27] 63 3	[28] 82 0	[16] 69 2	[27] 184	[28] 238	[16] 202	[27] 84	[28] 95	[16] 96
Lancashire and Cheshire	...do	33 0	[27] 63 3	[28] 80 7	[16] 65 0	[27] 192	[28] 244	[16] 197	[27] 87	[28] 89	[16] 94
South Wales and Monmouthshire	...do	39 10	[27] 79 9	[28] 96 2	[16] 85 3	[27] 200	[28] 242	[16] 214	[27] 91	[28] 96	[16] 102
Scotland	...do	38 0	[27] 72 5	[28] 98 8	[16] 73 2	[27] 191	[28] 260	[16] 193	[27] 87	[28] 103	[16] 92
All districts	...do	36 2	[27] 68 9	[28] 86 11	[16] 73 3	[27] 190	[28] 240	[16] 202	[27] 86	[28] 95	[16] 96
Engineering:											
Fitters and turners	...do	38 11	[29] 76 10	[15] 82 5	[21] 72 2	[29] 197	[15] 212	[21] 185	[29] 96	[15] 92	[21] 96
Laborers	...do	22 10	[29] 58 3	[15] 63 11	[21] 55 10	[29] 255	[15] 280	[21] 245	[29] 124	[15] 122	[21] 128
Shipbuilding:											
Riveters	...do	37 9	[29] 74 9	[15] 80 5	[21] 70 3	[29] 198	[15] 213	[21] 186	[29] 97	[15] 93	[21] 97
Laborers	...do	22 10	[29] 58 0	[15] 63 7	[21] 55 8	[29] 254	[15] 278	[21] 244	[29] 124	[15] 121	[21] 127

[9] Second half.
[10] First half.
[12] July.
[13] 1914.
[15] February.
[16] September.
[17] Index numbers of real wages in this country are computed on the basis of cost-of-living index, as follows: 1914=100; 1919—March=227, July=205; 1920—March=296, July=313; 1921—March=384, July=387.
[18] Index numbers of real wages in this country are computed on the basis of cost-of-living index, as follows: 1913=100; 1919=195; 1920—January=205, June=217; 1921—June=208, December=190.
[19] 1910.
[20] January.
[21] Jan. 1, 1922.
[22] Index numbers of real wages in this country are computed on the basis of cost-of-living index, as follows: 1913=100; July, 1919=257; July, 1920=270; September, 1921=231.
[23] Index numbers of real wages in this country are computed on the basis of cost-of-living index, as follows: 1914=100; December, 1920=243.
[24] On basis of 1914=100.
[25] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1914=100; December, 1919=225; December, 1920=265; 1921—June=219, December=192.
[26] Average earnings.
[27] November, 1918.
[28] June.
[29] April.

NOMINAL AND REAL WAGES, 1914 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRIES AND OCCUPATIONS—Concluded.

[£ at par=$4.8665; shilling=24.3 cents; penny=2.03 cents; krone (Austria)=20.26 cents; öre=0.25 cent; franc=19.3 cents; mark=23.82 cents; lira=19.3 cents; guilder=40.2 cents; krona (Sweden)=26.8 cents.]

Country, industry, and occupation.	Pay period.	Nominal wages.							Index numbers of real wages.		
		Amount.				Index numbers (1914=100).					
		1914	1919	1920	1921	1919	1920	1921	1919	1920	1921
United Kingdom—Concluded.											
Building trades:		£. s. d.	£. s. d.	£. s. d.	£. s. d.						
Bricklayers	Week	40 7	[15] 83 7	100 10	88 0	[15] 206	248	217	[15] 81	94	113
Carpenters	do	39 11	[15] 83 5	100 6	87 8	[15] 209	252	220	[15] 82	95	115
Painters	do	36 3	[15] 81 5	99 3	86 5	[15] 225	274	238	[15] 88	103	124
Laborers	do	26 11	[15] 70 3	87 3	68 4	[15] 261	324	254	[15] 102	122	132
Textiles:											
Cotton	do.[26]	19 6	46 8	42 9	41 1	239	219	211	106	83	110
Wool	do	18 9	48 5	46 1	41 0	259	246	219	115	93	114
Printing trades:											
Linotype and monotype operators (London)	do	44 0	90 0	105 0	100 0	205	239	227	91	90	118
Press correctors (London)	do	44 0	89 0	104 0	99 0	202	236	225	90	89	117
Job compositors	do	38 0	81 0	97 6	92 6	213	257	243	95	97	127
Railways:											
Plate layers (London)	do	24 0	.....	74 0	[21] 62 0	.....	308	[21] 258	.....	116	[21] 134
Plate layers (industrial areas)	do	20 0	.....	71 6	[21] 59 6	.....	357	[21] 297	.....	135	[21] 155
Plate layers (rural areas)	do	18 0	.....	71 6	[21] 59 6	.....	397	[21] 331	.....	150	[21] 172
Engineers	do	30 0	.....	88 0	[21] 76 0	.....	293	[21] 253	.....	111	[21] 132
Firemen	do	18 0	.....	70 0	[21] 58 0	.....	389	[21] 322	.....	147	[21] 168
Passenger guards	do	21 0	.....	72 0	[21] 60 0	.....	343	[21] 286	.....	129	[21] 149
Road and water transport:											
Carters, 2-horse (London)	do	31 0	65 0	74 0	[28] 70 0	210	239	[28] 226	93	90	[28] 103
Carters, 2-horse (Lancashire towns)	do	28 0	64 0	73 0	66 0	229	261	236	102	98	123
Drivers, steam wagons (London)	do	40 0	74 0	83 0	[28] 79 0	185	207	[28] 197	82	78	[28] 90
Mates, steam wagons (London)	do	25 0	59 0	68 0	[28] 64 0	236	272	[28] 256	105	103	[28] 117
Dockers (London)	Day	5 3	11 8	16 0	[21] 13 0	222	305	[21] 248	99	115	[21] 129
Merchant shipping:											
Boatswains	Month	6 10 0 to 7 0 0	16 0 0	16 0 0	13 10 0	229–246	229–246	193–208	102–109	86– 93	101–108
Able seamen	do	5 10 0	14 10 0	14 10 0	12 0 0	264	264	218	117	100	114
Ordinary seamen	do	2 10 0	8 10 0 to 10 0 0	8 10 0 to 10 0 0	7 5 0 to 8 15 0	340–400	340–400	290–350	151–178	128–151	151–182

Civil-service clerks	Week	15 0		38 3	[28] 39 9		255	[28] 265		96	[28] 121
	do	60 0		132 1	[28] 136 9		220	[28] 228		83	[28] 104
	Year	226 0 0		459 3 0	[28] 474 4 0		203	[28] 210		77	[28] 96
	do	500 0 0		880 0 0	[16] 819 0 0		176	[16] 164		66	[16] 78
	do	1,000 0 0		1,649 0 0	[16] 1,381 0 0		165	[16] 138		61	[16] 66
Agriculture	Week	16 10	[30] 36 6	[31] 46 0	36 0	[30] 217	[31] 273	214	[30] 104	[31] 102	111
United States.[32]											
Coal mining:											
Bituminous (underground)—											
Machine cutters and loaders	[33]	$0.4485	$0.70	[12] $0.94	[34] $0.94	156	[12] 210	[34] 210	88	[12] 97	[34] 117
Pick or hand miners	[33]	.65	.8764	[12] 1.1164	[34] 1.1164	135	[12] 172	[34] 172	76	[12] 79	[34] 96
Cagers, drivers, motormen, timbermen, trackmen, etc.	Day	2.84	5.00	[12] 6.00	[34] 6.00	176	[12] 211	[34] 211	99	[12] 97	[34] 117
Tracklayers' helpers	do	2.62	4.75	[12] 5.75	[34] 5.75	181	[12] 219	[34] 219	102	[12] 101	[34] 122
Anthracite—Underground and surface workers	do	2.727	4.928	[12] 5.784	[34] 5.784	181	[12] 212	[34] 212	103	[12] 98	[34] 118
Metal trades:											
Iron and steel	½ month	27.60	69.63	74.41	[34] 44.09	252	270	[34] 160	127	135	[34] 90
Blast-furnace workers (common labor)	Day	1.73	3.66	3.79	[34] 2.40	212	219	[34] 139	121	111	[34] 79
Molders	Week	20.97	[30] 34.26	[30] 43.39	[34] 41.75	[30] 163	[30] 207	[34] 199	[30] 93	[30] 104	[34] 116
Building trades:											
Whole country—											
Bricklayers	do	30.57	[30] 38.82	[30] 52.88	[34] 50.61	[30] 127	[30] 173	[34] 166	[30] 72	[30] 80	[34] 95
Carpenters	do	23.63	[30] 34.03	[30] 45.37	[34] 43.87	[30] 144	[30] 192	[34] 186	[30] 81	[30] 88	[34] 107
Painters	do	22.56	[30] 33.62	[30] 44.22	[34] 44.22	[30] 149	[30] 196	[34] 196	[30] 84	[30] 90	[34] 113
Laborers	do	14.88	[30] 21.58	[30] 30.96	[34] 26.62	[30] 145	[30] 208	[34] 179	[30] 82	[30] 96	[34] 103
New York City—											
Bricklayers	Day	6.00	[25] 8.50	[29] 10.00	[34] 10.00	[25] 142	[29] 167	[34] 167	[25] 70	[29] 76	[34] 94
Laborers	do	3.00	[25] 5.50	[29] 7.00	[34] 7.00	[25] 183	[29] 233	[34] 233	[25] 90	[29] 106	[34] 133
Massachusetts—											
Bricklayers	do	4.952	[12] 6.424	[12] 8.264	[12] 7.84	[12] 130	[12] 167	[12] 158	[12] 77	[12] 82	[12] 98
Laborers	do	3.136	[12] 4.632	[12] 6.00	[12] 5.736	[12] 148	[12] 191	[12] 183	[12] 88	[12] 94	[12] 114
General average	do	4.032	[12] 5.896	[12] 7.356	[12] 7.384	[12] 146	[12] 182	[12] 183	[12] 87	[12] 89	[12] 114
Textiles:											
Cotton—											
Spinners	Week	[11] 8.137	[36] 12.57	24.083	19.266	[36] 155	296	237	[36] 89	137	134
Weavers	do	[11] 9.673	[36] 15.261	29.051	23.240	[36] 158	300	240	[36] 90	138	136
General average	do					[36] 186	304	243	[36] 101	136	134
Wool—											
Spinners	do	[11] 7.80		26.78	21.40		342	274		158	155
Weavers	do	[11] 13.10		38.98	31.18		298	238		137	134
General average	do					186	304	243	106	140	137
Agriculture	Month	30.31	56.29	64.95	42.65	186	214	141	106	108	87

[11] 1913.
[12] July.
[15] February.
[16] September.
[21] Jan. 1, 1922.
[26] Average earnings.
[27] April.
[28] June.
[30] May.
[31] August.

[32] Index numbers of real wages in this country are computed on basis of cost-of-living index, as follows: 1914=100; 1919—June=175, July=177; 1920—July=217, December=198; 1921—May=180, December=172.

[33] Gross tonnage rates.
[34] Fourth quarter.
[25] October.
[36] 1918.

In order to facilitate comparison of wage conditions in the same industries in different countries, the index numbers of real wages are shown by industries, below:

INDEX NUMBERS OF REAL WAGES, 1919 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRY.

Coal mining.

Industry, country, and occupation.	Index numbers of real wages (pre-war=100).			Industry, country, and occupation.	Index numbers of real wages (pre-war=100).		
	1919	1920	1921		1919	1920	1921
Australia [1]	99	99	[2] 107	Germany—Concluded.			
Belgium:				Lower Silesia	.....	141	[3] 154
All workers	.....	106	[3] 99.7	Frankfort	77	114	[3] 154
Hewers	.....	107	[3] 101	Netherlands:			
Underground workers, excluding hewers	.....	105	[3] 99.5	Underground workers	115	122	129
Surface workers	.....	115	[3] 125	Surface workers	119	124	136
Czechoslovakia	.....	87	.....	United Kingdom (general average):			
France:				Northumberland	[5] 84	[6] 95	[3] 96
General average (whole country)	114	109	[3] 116	Lancashire and Cheshire	[5] 87	[6] 89	[3] 94
Underground (whole country)	109	99	[3] 106	South Wales and Monmouthshire	[5] 91	[6] 96	[3] 102
St. Etienne (average)	.....	.....	[4] 112	Scotland	[5] 87	[6] 103	[3] 92
Rive-de-Gier (average)	.....	.....	[4] 134	All districts	[5] 86	[6] 95	[3] 96
Germany:				United States:			
Dortmund	.....	92	[3] 121	Anthracite	103	98	118
Upper Silesia	.....	.....	[3] 116	Bituminous, hand and machine cutters	88	97	117

Metal trades.

Australia: Engineering (general average)	99	101	113	Germany—Concluded.			
Austria:				Frankfort district—			
Skilled workers	.....	75	78	Skilled workers	44	83	96
Unskilled workers	.....	92	95	Unskilled workers	49	104	122
Belgium:				Netherlands: Skilled workers	109	120	134
Skilled workers	.....	85–95	122	South Africa: Skilled workers	106	101	.....
Unskilled workers	.....	95 to 110	89 to 127	Sweden: Mining and metals (general average)	99	110	96
Canada: Skilled machinists (Montreal)	101 to 128	107 to 12	[2] 112 to [2] 149	United Kingdom:			
Denmark:				Molders	94	89	94
Smiths and machinists	149	141	139	Fitters and turners	96	92	96
Unskilled workers	154	144	137	Pattern makers	.....	90	94
France:				Unskilled workers	124	122	128
Turners (Paris)	.....	.....	110	United States:			
Turners (other towns)	.....	.....	106	Whole country—			
Unskilled workers	113	121	127	Molders	93	104	116
Germany:				Iron and steel workers	127	135	90
Whole country—				Blast-furnace laborers	121	111	79
Skilled workers	.....	91	96	New York State—			
Unskilled workers	.....	116	117	Pig-iron and rolling-mill workers (general average)	116	119	87

Building trades.

Australia: Engineers (general average)	89	91	103	Canada:			
Austria (Vienna):				Bricklayers (Winnipeg)	.....	85	92
Bricklayers	.....	39	89	Painters (Winnipeg)	.....	89	96
Carpenters	.....	36	83	Laborers (Winnipeg)	.....	95 to 114	88 to 121
Painters	.....	36	83	General average (7 trades)	80	90	99
Laborers	.....	61	130				

[1] Mining of all kinds included.
[2] June.
[3] September.
[4] First half year.
[5] November, 1918.
[6] Quarter ending June 30.
[7] 1918.

INDEX NUMBERS OF REAL WAGES, 1919 TO 1921, IN VARIOUS COUNTRIES, BY INDUSTRY.—Concluded.

Building trades—Concluded.

Industry, country, and occupation.	Index numbers of real wages (pre-war=100).			Industry, country, and occupation.	Index numbers of real wages (pre-war=100).		
	1919	1920	1921		1919	1920	1921
Denmark (Copenhagen):				South Africa:			
Bricklayers	142	138	131	Whole country	109	102	.....
Carpenters	158	142	132	Pretoria	112	113	148
Laborers	157	157	143	Cape Town	105	97	122
France:				Sweden: General average	100	101	103
Paris—				United Kingdom:			
Bricklayers	.....	.....	107	Towns of over 10,000 population—			
Carpenters	.....	.....	101	Bricklayers	81	94	113
Painters	.....	.....	126	Carpenters	82	95	115
Laborers	.....	.....	117	Painters	88	103	124
Other towns—				Laborers	102	122	132
Bricklayers	.....	.....	113	Eight cities—			
Carpenters	.....	.....	110	Bricklayers	89	80	106
Painters	.....	.....	112	Laborers	108	100	135
Laborers	.....	.....	118	London—			
Germany:				Bricklayers	101	90	102
Bricklayers and carpenters (Berlin)	.....	65	65	Laborers	133	124	138
Laborers (Berlin)	.....	94	92	United States:			
General average (Frankfort)	.....	88	105	Whole country—			
Netherlands (Amsterdam):				Bricklayers	72	80	95
Bricklayers	[7] 82	96	139	Carpenters	81	88	107
Carpenters	[7] 89	102	150	Painters	84	90	113
Painters	[7] 83	99	142	Laborers	82	96	103
Laborers	[7] 99	118	161	New York City—			
Norway:				Bricklayers	70	76	94
Bricklayers	83	78	.....	Laborers	90	106	133
Laborers	95	88	.....	Massachusetts—			
				Bricklayers	77	82	98
				Laborers	88	94	114

Textile industry.

Austria: Weavers	.....	44	68	United Kingdom:			
Canada: Cotton spinners (Province of Quebec)	116	109	.....	Cotton	106	83	110
Denmark: General average (Copenhagen)	150	152	140	Wool	115	93	114
France:				United States:			
Spinners, cotton (Roubaix)	.....	.....	116	Whole country—			
Spinners, wool (Roubaix)	.....	.....	100	Spinners, cotton	89	137	134
Spinners, wool (Fourmies)	.....	.....	133	Weavers, cotton	90	138	136
Weavers (whole country)	.....	.....	119	General workers, cotton	101	136	134
Weavers (Roubaix)	.....	.....	131	Spinners, wool	.....	158	155
Germany:				Weavers, wool	.....	137	134
Spinners	.....	69	105	General workers, wool	106	140	137
Weavers	.....	75	100	New York State—			
Sweden: General average	105	128	112	Cotton	121	135	121
				Wool	111	117	138
				General average	110	114	120

Chemical industry.

Denmark	127	153	135	United States:			
Germany (Frankfort)	58	132	128	General	.....	105	104
Italy	125	111	112	New York State—			
Sweden	110	119	112	Chemicals, oils, paints	98	96	109
				Drugs and chemicals	91	92	98

Agriculture.

Australia	103	109	117	Sweden	112	117	99
England and Wales	104	102	111	United States	106	108	78
France	82.7	82	117				

[7] 1918.

The following are the conclusions regarding real wages arrived at in the report:

(1) It has been shown that during the war period there was a general "time-lag" in the adjustment of wage rates to the increasing cost of living, and that in consequence there was a distinct lowering of real wages, this lowering being greatest in a number of countries in 1917. In the latter part of the war period and in 1919, partly in consequence of more systematic adjustments of wage rates, an improvement in real wages took place which in many cases tended to reach the pre-war level. No figures are available for the war period for the belligerent countries of continental Europe, but such evidence as exists leads to the conclusion that the "time-lag" in adjusting wage rates to rising prices was probably greater than in the countries for which statistics have been given.

With regard to real wages based on earnings it is necessary to draw a distinction between those industries where the war demand caused abnormal activity and those relatively unessential services or occupations where work could be postponed, and in which there was a consequent diminution in the demand for labor. In the former cases, as, for example, in munition trades, earnings were very high, owing to the elimination of short time, the prevalence of overtime, or the possibility of high piecework earnings. Real wages in consequence rose in such occupations well above the level of 1914, while in other trades, and particularly in the building trades, real wages fell during the war period.

(2) The tables of real wages indicate that in general, in most countries, the real wages of those manual workers who were fully employed at the end of 1921 were a little higher than in the years immediately prior to the war. * * *

There are, however, particular industries, such as the iron and steel industry in the United States, and even whole countries, as, for example, Austria, where the real wages of manual workers are no higher in 1921 than before the war. Furthermore, it can not be too strongly emphasized that where the real wage index numbers are calculated from rates of wages no allowance is made for short time or unemployment, both of which were very extensive in a number of countries in 1921 and especially in those countries of relatively high exchange for which we have statistics. Where they are based on earnings, short time only is allowed for, while the dismissal of the least efficient workers in periods of bad trade often causes the per capita earnings of those remaining in employment to rise. It may be concluded that, generally, the burden of the industrial depression has been borne by the workers in terms of unemployment and short time rather than in low money wages. It is true that prolonged unemployment and short time generally results in a reduction of wages, but this reduction seems to have been less in the present crisis than at other periods.

(3) There has been a considerable change during the period 1914–1921 in the ratio of the wages of skilled and of unskilled workers, those of the latter having risen relatively to those of the former, and in consequence there is less inequality between the wages of these groups than in 1914. This change of ratio has taken place almost without exception in all countries and industries for which figures are available, having resulted apparently mainly from the following causes:

(*a*) Those workers who are nearest to the minimum of subsistence are not able to sustain the burden of rising prices, and wages must be raised immediately if distress is to be avoided. For this purpose, in many industries war bonuses, or cost-of-living bonuses, of equal amounts were added to the wages of skilled and unskilled workers alike, as, for example, in the case of railway employees in Great Britain. This necessarily changed the ratio of the wages of skilled to unskilled workers in favor of the latter.

(*b*) In some cases there has been a rapid development of trade-union organization among unskilled workers, which has strengthened their bargaining power considerably.

But with a stable price level, skilled workers are likely to recover some of the ground they have lost in so far as the differences are based on differences in productive efficiency.

(4) The real value of the salaries of professional workers, civil servants, and other similar groups is, in general, less than before the war, there having been a proportionately less increase in money wages than in the case of manual workers. Among the professional workers themselves the increases in the salaries of the higher-paid officials or groups has been proportionately less than in the case of the lower-paid workers.

(5) There is sufficient evidence to establish the conclusion that women have received proportionately larger increases than men. This is probably due to a large

number of causes, the discussion of which falls outside the scope of the present report. Among the factors, however, which have made their influence felt should be noted the increasing number of employments which have been thrown open to female labor, and to the reduced supply of male labor during the war period in the belligerent countries. Standardization of product and specialization of process led to women and unskilled workers being able to engage in trades formerly regarded as skilled. There was, further, the necessity of paying a living wage, as many female workers were entirely dependent on their wages. As in the case of unskilled male workers, the relatively low wages in pre-war years implied a heavy burden immediately a rise in the price level occurred, and wage adjustments were even more urgent than for skilled workers.

Another factor has been the demand for "equal pay for equal work," a principle which is far from operating generally, but which has led to a greater degree of uniformity being established between the wages of women and men. It should, however, be pointed out that in some cases the principle has received support from male workers as a means of diminishing the competition of women.

The conclusion that, in general, women have received greater proportionate increases than men serves to explain why in many countries industries like textiles, where large numbers of women are employed, show relatively greater increases than where male labor predominates.

(6) There has been a somewhat greater proportionate increase in the wages of workers in small towns and provincial districts than in the larger towns and capital cities. This may be partly the result of an attempt to prevent the competition of low-paid workers; "but it may also have relation to a definite leveling up of prices in small and semirural towns as the result of control and deficiency of supplies of commodities during the war. The local differences in wage rates were no doubt caused partly by the supply of low-paid labor from rural districts, partly by the relative cheapness of such foods as were produced locally, and especially by lowness of rents as compared with the largest towns. At the same time the higher real wages in the towns attracted the best workmen and the real efficiency rates may have been nearly equal."[2]

Average Weekly Earnings of New York State Factory Workers in August, 1922.

THE average weekly earnings of factory workers in New York State were $25.10 in August, a gain of 33 cents as compared with July, according to a statement issued by the New York State Department of Labor. This is an increase of 85 cents since the lowest average earnings in April, 1922, and is $3.83 less than average earnings at their high point in October, 1920.

The largest gain in August was due to the increased earnings in the railway repair shops, where strike conditions curtailed earnings in July but resulted in very high earnings in August. Most of the metal trades, the stone-products industries, and the wood-manufacturing industries reported gains. There was also a seasonal gain in the clothing industries and a seasonal reduction in the food-products industries.

The largest increase in average earnings in August was that of $7.20 in the railway equipment and repair shops. This was due mainly to increased working time to meet the strike conditions. Some of the shops changed from an 8-hour to a 12-hour shift.

Earnings in the clothing trades showed a seasonal gain in August. In the women's clothing industry there was a gain of $1.72, affecting both the cloak and suit and the dress and waist shops. Earnings as well as employment were reduced in the women's underwear factories. There were considerable gains in the factories making

[2] Bowley, A. L.: Prices and Wages in the United Kingdom, 1914–1920. Oxford, 1921.

men's hats and caps, following the settlement of the strike in New York. Earnings went lower in the men's clothing industry, where a large number of workers were added, but many factories reported higher earnings because of increased working time.

Average earnings declined in the textile industries. The largest decline in earnings during the month was the seasonal reduction in the food-products industries. Workers in the canning factories earned an average of $2.51 less than in July. Reductions in the candy factories were due to the addition of a number of new employees. The large plants making crackers reported reduced earnings as well as a reduction in the number of employees. In the sugar refineries average earnings were somewhat lower.

Average earnings declined in nearly all branches of the pulp and paper-goods industries.

Changes in Average Weekly Earnings in Wisconsin in 1922.[1]

THE following table shows changes in weekly earnings in Wisconsin in various kinds of manual employment in specified periods in 1922:

AVERAGE WEEKLY EARNINGS IN WISCONSIN IN SPECIFIED INDUSTRIES FOR JANUARY, JULY, AND AUGUST, 1922, AND PER CENT OF CHANGE FROM JANUARY TO AUGUST AND FROM JUNE TO AUGUST, 1922.

Industry.	Amount.			Per cent of increase (+) or decrease (−) from—	
	Jan., 1922.	July, 1922.	Aug., 1922.	Jan., 1922, to Aug., 1922.	June, 1922, to Aug., 1922.
Mining	$18.82	$19.95	$20.79	+4.2	+10.5
Stone crushing and quarrying	12.52	19.91	21.92	+10.1	+75.1
Manufacturing	19.58	20.66	21.75	+5.3	+11.2
Stone and allied industries	16.25	23.96	23.27	−2.9	+43.3
Metal	19.84	23.44	26.11	+11.4	+31.6
Wood	17.03	16.75	18.57	+10.9	+9.0
Rubber	20.74	21.56	22.11	+2.6	+6.6
Leather	19.70	19.05	19.88	+4.3	+.9
Paper	21.14	19.12	20.54	+7.4	−2.9
Textiles	18.16	17.82	18.49	+3.8	+1.8
Foods	18.13	19.83	16.81	−15.3	−7.4
Light and power	24.49	21.83	22.77	+4.3	−7.0
Printing and publishing	30.50	30.33	30.46	+.4	−.1
Laundering, cleaning, and dyeing	17.09	18.50	18.50	.0	+8.2
Chemicals (including soap, glue, and explosives)	27.31	25.82	26.49	+2.6	−3.1
Construction:					
Building	21.41	21.96	24.18	+10.1	+12.9
Railroad	24.59	18.74	21.62	+15.5	−12.1
Marine, dredging, sewer digging	21.17	24.87	24.86	.0	+17.4
Steam railways	35.58	39.04	40.02	+2.5	+12.5
Electric railways	24.71	22.10	22.57	+2.2	−8.7
Express, telephone, and telegraph	25.98	26.32	25.95	−1.7	.0

Average Wages in British Columbia, 1921.

THE following table, showing the average wage for a full week's work for adult males in various industries in 1919–20 and 1921 in British Columbia, is reproduced from the annual report of the Department of Labor of that Province for the year ending December 31, 1921 (p. 13):

[1] Wisconsin. Industrial Commission. Wisconsin Labor Market, August, 1922.

AVERAGE WEEKLY WAGE OF ADULT MALES IN IN 1919-20 AND 1921 IN SPECIFIED INDUSTRIES.

Industry.	1919–20	1921
Breweries	$28.27	$28.67
Builders' material	31.65	28.82
Cigar and tobacco manufacture	32.48	23.97
Coal mining	37.64	32.83
Coast shipping	26.81	28.45
Contracting	31.61	28.82
Explosives, chemicals, etc	31.53	26.34
Food products (manufacture of)	29.72	25.67
Garment making	36.14	29.38
House furnishing	28.79	26.00
Manufacturing jewelry	34.20	33.54
Laundries, cleaning, dyeing	28.42	27.32
Manufacturing leather and fur goods	28.81	29.85
Lumber industries	32.47	24.70
Metal trades	31.14	30.33
Metal mining	35.96	32.00
Miscellaneous trades and industries	28.24	28.40
Oil refining	28.52	35.73
Paint manufacture	27.23	24.14
Printing and publishing	35.79	36.30
Pulp and paper manufacturing	35.18	25.41
Shipbuilding	28.11	29.87
Smelting	36.44	31.98
Street railways, gas, water, power, telephones, etc	32.81	29.55
Manufacturing wood (not elsewhere specified)	27.46	23.48

These averages are computed from figures reported by each firm for the week in which the largest number of workers was employed. Actual earnings, especially during slack seasons, would of course be very much less. The general average weekly wages for adult males for the above listed industries for 1921 and certain preceding periods are:

1918 (January to July)	$27.97
1918–19	29.11
1919–20	31.51
1921	27.62

The figures reported in connection with weekly working hours in the different industries show very little change as compared with those reported for the preceding year, the general average for 1921 being 50.41.

Agricultural Wages and Wage Earners in Denmark.[1]

By Mrs. V. B. Turner.

AGRICULTURE has always held a conspicuous place among the industries of Denmark. Census figures for 1911[2] show that 1,003,716 persons out of a total population of 2,757,076 were engaged in agricultural pursuits. Of the 901,785 self-supporting men in Danish industry at that time, 402,664, or 45 per cent, were thus engaged, while of the 463,109 self-supporting women, 110,129, or 24 per cent, did agricultural work of some character. These totals, however, apply to agriculture in its broad interpretation; that is, they

[1] Except where otherwise noted, the data on which this article is based are from the Danish Foreign Office Journal, August, 1921; International Review of Agricultural Economics, April, 1921; Ministry of Labor Gazette, London, June, 1922; Great Britain, Department of Overseas Trade, Report on the post-war economic and industrial situation of Denmark, London, 1920 [Cmd. 955]; Great Britain, Ministry of Labor, Labor Overseas, London, April–June, 1920, and April–June, 1921; Arbejdsgiveren, Copenhagen, June 10, 1921.

[2] Denmark. Statens Statistiske Bureau. Statistisk Aarbog, 1920. Copenhagen, 1921, pp. 33–37.

include 68,424 men and women engaged in horticulture, forestry, and fishing. Exclusive of these classes, 935,292 persons, or about 34 per cent of the total population, were connected with the agricultural industry in its limited sense.

Though the cultivation of the soil has become the principal means of the national support of Denmark, it was not until 1787 that reforms were initiated which released the Danish peasant from the prevailing feudal system of land tenure. Since that time through the enactment of agricultural legislation the right to possess land has been gradually extended to include the small holder. During the same time the system of small independent farming has likewise developed, until now it may be said that Denmark is preeminently the country of small holdings. The agricultural area includes about 3,000,000 hectares (7,413,000 acres), divided into 191,500 farms, of which 103,000 are small holdings with a total area of 350,000 hectares (864,850 acres). The average size of these holdings is 3.4 hectares (8.4 acres), the maximum size being 10 hectares (24.7) acres). Farms with an area of from 10 to 60 hectares (24.7 to 148.3 acres) number 84,200 and comprise 2,000,000 hectares (4,942,000 acres), or about two-thirds of the total agricultural area of Denmark. Of this group, 20,000 farms, or about one-fourth, average from 30 to 60 hectares (74.1 to 148.3 acres). Of farms containing more than 60 hectares (148.3 acres) there are 4,300, or about 22 per cent of the total number.[3]

Classes of Danish Agricultural Wage Earners.

HIRED labor is exceptional on the small holdings, the owners and their families with occasional help from other small holders constituting, in general, a sufficient labor supply. And while the Government encourages the small holding system through advances of capital for the purchase of small holdings, and recent legislation has included farm workers in the class of workmen who are entitled to procure such loans, there is nevertheless quite a large class of wage earners on the land, who in 1921 are said to have numbered 315,000.[4] It is difficult to get exact figures regarding the number of agricultural wage earners, because so many of the small holders, usually excluded from such compilations, are obliged to add to the income derived from these holdings by working for part of their time as laborers on the large farms. On the medium-size farms much of the work is likewise done by the owners and their families, but on a large number of them hired labor is also necessary and consists, on the average farm of this group, of an unmarried male laborer and an unmarried female laborer, who are permanent workers, engaged for a period of 12 months, and boarded and lodged on the farm. Seasonal labor is engaged during harvest and for work in the beet fields. On the farms of this group averaging from 75 to 150 acres, the employment of labor is naturally proportionately greater.

For the purposes of collective bargaining Danish farm hands are divided into two classes, known as regular, or permanent, and irregular workers. Included among the regular workers are ordinary field hands, drivers, cowherds, milkmaids, fodder masters, and a class of young farm employees who receive board and lodging on

[3] International Labor Office. Technical survey of agricultural questions. Geneva, 1921, pp. 8, 9. From a reply of the Danish Government in answer to a questionnaire sent out by the International Labor Office.
[4] Land Worker, London, August, 1921, p. 4

the farm as a part of their wages. The group of irregular workers consists of labor hired for special or seasonal work. Members of this group receive their pay in cash.

Women in Danish Agriculture.

WOMEN are employed in regular agricultural work in Denmark as domestic servants, and also do most of the milking and considerable of the work in the turnip fields, a class of piecework for which they receive the same wages as men. A more detailed classification of woman workers on Danish farms and the average wages paid woman farm servants for 1910, 1915, and 1918 appear in Table 3 (p. 133); for 1921, in Table 4 (p. 134).

Organization of Farm Labor.

THE organization of farm labor [5] in Denmark dates back to 1906, but during the first 10 years unionization progressed slowly, showing only negligible results. In 1915 the agricultural union joined the professional and political labor movement and a rapid increase in membership followed. According to the Danish Statistical Yearbook (*Statistisk Aarbog*) for 1920 (p. 152), and 1921 (p. 130), the branches of the agricultural union numbered 630 in 1920 with 25,000 members, as compared with 640 branches in 1919 with 32,000 members. A labor report from Denmark published in the Land Worker (London), May, 1921 (p. 4), states that at that date there were 620 branches with a membership of 30,000. There were also, in 1920, 20 horticultural laborers' unions with 1,370 members, as compared with 21 unions and 1,998 members in 1919. The small holders who are able to secure their entire living from their holdings can not become members of the agricultural unions, but there is a class of small holders for which provision is made in union agreements.

The agricultural union publishes a weekly paper called the "Land Arbejderbladet" (the Land Workers' Paper). Both the agricultural and the horticultural unions have an unemployment and a sick-benefit fund.

Wages and Wage Increases as Compared with Cost of Living.

AGRICULTURAL earnings in Denmark, like those in other countries, are made up in part of cash wages, including special overtime and piecework pay, and in part of board and lodging and various allowances.

Allowances.

In the case of the young farm servant living in his employer's house, board and lodging constitutes a considerable part of his wages, while the married regular, or permanent, male land worker receives in addition to his cash wages a house and garden free, free transport of fuel, etc., besides grain, potatoes, and milk at prices paid the employer by wholesale merchants.

The house furnished the worker must be in good repair and must pass muster as to certain sanitary requirements. It must contain at least two light, spacious rooms (in new buildings, three rooms) besides a kitchen, pantry, and laundry, the latter being equipped by

[5] Collective agreements show that agricultural employers, too, are organized, but details upon this point have not been secured.

the owner with fixtures such as a kitchen range, copper boiler, etc. The garden usually covers about one-fifth of an acre. Board and lodging furnished the farm worker living with the family must also be up to the standard prescribed by the law.

A class of men called "fodder masters," whose duty it is to care for the cattle on small farms, are paid according to the number of the cattle on the farm or according to the quantity of milk produced and the number and price of the cattle sold. Another class of regular land workers, known as the allotment farmers, either own a piece of ground in addition to the house and garden furnished by the farmer, or rent a piece from him. These men pay rent for the extra land and the horses furnished them and are paid the wages due them in the same way as the other regular land workers of their class. Their working conditions are made the subject of special rules in the collective agreements.

Wages and Earnings.

In order to estimate the earnings of regular land workers as exactly as possible it is necessary to distinguish between servants, that is, men and women who are boarded by the farmer, and the male day laborers who provide their own food.

The following table gives the average yearly earnings of these two groups for the years 1910, 1915, and 1918, and since the agricultural wages paid in the Danish islands are less than those in Jutland, both are shown, and the general average for Denmark as well.

TABLE 1.—AVERAGE WAGES OF SERVANTS, BY SEX OF WORKERS, AND PERMANENT MALE DAY LABORERS IN DANISH AGRICULTURE IN 1910, 1915, AND 1918, BY SEASON AND DIVISION.[1]

[Krone at par=26.8 cents.]

Division.	Year.	Average yearly earnings of farm servants.								Wages of permanent male day laborers (without board).			
		Men.				Women.				Average daily wages.			Average yearly wages.
		Summer.	Winter.	Value of board and lodging.	Total.	Summer.	Winter.	Value of board.	Total.	Spring and summer.	Autumn.	Winter.	
		Kr.	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*
Islands	1910	216	128	265	609	120	102	232	454	2.08	2.64	1.72	630
	1915	264	157	350	771	141	121	306	568	2.65	3.17	2.10	770
	1918	413	203	628	1,244	187	151	542	880	4.37	5.26	3.46	1,300
Jutland	1910	257	123	264	644	135	83	228	446	2.60	2.97	1.78	720
	1915	304	154	359	817	164	102	303	569	3.22	3.56	2.29	890
	1918	460	219	664	1,343	219	136	553	908	5.30	5.92	3.72	1,480
All of Denmark	1910	239	125	263	627	129	91	229	449	2.34	2.80	1.75	680
	1915	285	156	354	795	153	111	305	569	2.94	3.36	2.19	830
	1918	438	211	647	1,296	204	142	548	894	4.84	5.59	3.59	1,400

[1] Denmark. Statens Statistiske Bureau. Statistisk Aarbog, 1921. Copenhagen, 1921, p. 138.

The wages of temporary laborers who board themselves run as a rule from 0.5 to 1 krone (13.4 to 26.8 cents, par) higher than the wages of the permanent workers. Average daily cash wages of temporary workers who do and who do not receive board are given for 1910, 1915, and 1918 in Table 2.[6]

[6] Denmark. Statens Statistiske Bureau. Statistiske Meddelelser, series 4, vol. 59, Copenhagen, 1920, p. 40.

TABLE 2.—AVERAGE DAILY CASH WAGES OF TEMPORARY AGRICULTURAL WORKERS WHO DO AND WHO DO NOT RECEIVE BOARD, 1910, 1915, AND 1918.

[Krone at par=26.8 cents.]

Year.	Wages of temporary workers who receive board.			Wages of temporary workers who do not receive board.		
	Spring and summer.	Autumn.	Winter.	Spring and summer.	Autumn.	Winter.
	Kroner.	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*
1910	2.02	2.45	1.32	2.79	3.23	2.00
1915	2.46	2.93	1.66	3.43	3.88	2.49
1918	4.12	4.85	2.66	5.93	6.59	4.16

Between 1915 and 1918 the increase in the average yearly cash wages of agricultural male servants who lived with the family was, for all of Denmark, 47 per cent; for woman servants, 31 per cent. If the value of board and lodging is included, the increases reached 63 per cent and 57 per cent, respectively. The increase in the average yearly cash wages of permanent laborers who furnished their own board was 69 per cent, while the increases in the average daily cash wages of temporary land workers ranged from 60 per cent to 67 per cent in the case of those who received board and from 67 per cent to 73 per cent in the case of those who furnished their own board.

The difference in the yearly wages paid to various classes of agricultural workers throughout Denmark for 1918 as compared with those in 1915 and 1910 and the number of persons in each class for whom wage data were secured are shown in Table 3.[7]

TABLE 3.—YEARLY WAGES OF VARIOUS CLASSES OF AGRICULTURAL WAGE EARNERS IN 1918, AS COMPARED WITH THOSE IN 1915 AND 1910.

[Krone at par=26.8 cents.]

Occupation and sex.	1918				Yearly wage.	
	Number of each class reported.	Summer wage.	Winter wage.	Total yearly wage.	1915	1910
		Kroner.	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*
Males.						
Stewards	13	429	314	743	471	421
Managers	66	490	311	711	547	471
Foremen	397	452	246	698	475	405
Fodder masters	276	368	282	650	499	480
Milkers	16	393	230	623	448	418
Stable boys	146	374	239	613	430	378
Drivers	27	336	248	584	411	333
Man servants	1,928	315	175	490	341	294
Agricultural students	286	248	159	407	294	245
Herdsmen	169	212	159	371	324	305
Total	3,324	[1] 328	[1] 200	[1] 528	[1] 376	[1] 320
Females.						
Housekeepers	44	230	216	446	370	290
Managers	60	216	191	407	305	264
Dairymaids	16	205	181	386	309	251
Milkmaids	259	193	143	336	265	224
Cooks	129	178	156	334	251	214
Scullery maids	11	186	145	331	241	210
Maid servants	913	167	126	293	229	193
Housemaids [2]	114	155	137	292	228	187
Maids of all work	117	147	128	275	215	182
Nursemaids	35	92	79	171	132	114
Domestic science students	25	82	77	159	137	115
Total	1,723	[1] 172	[1] 136	[1] 308	[1] 242	[1] 195

[1] Average. [2] Chambermaids or parlor maids.

[7] Denmark. Statens Statistiske Bureau. Statistiske Meddelelser, series 4, vol. 59, Copenhagen, 1920, p. 19.

Farm Wages in 1920 and 1921.

There is almost an entire absence of information available regarding agricultural wages in Denmark between 1918 and 1921. As the result of negotiations between the Association of Employers in Agriculture and Forestry in Denmark and the Danish Farm Workers' Union the following agreement was arrived at beginning about May 1, 1920. The daily wages of resident workers were increased from 6.2 kroner ($1.66, par) to 7.5 kroner ($2.01, par), while day laborers furnishing their own board were to receive 10 kroner ($2.68, par) per day for regular work and 11.5 kroner ($3.08, par) per day during harvest. Cattlemen were to obtain a yearly wage of 3,000 kroner ($804, par).[8] When the 1920 agreement came to an end in May, 1921, the Association of Employers in Agriculture and Forestry refused to renew it, and the first great agricultural strike or lockout (or both, since the employees planned a strike and the employers a lockout to take effect the same date) in Denmark ensued. The dispute lasted from May 20 to June 6 and resulted in a reduction of wages for the workers affected.

Though the average yearly cash wage rates for 1921 as compared with the very inadequate figures quoted for 1920 show the effects of the reduction due to the industrial depression, they represent a considerable increase over similar rates prevailing in 1918 and 1915. The value of board and lodging and of allowances in kind during 1921 is not available, and it should also be noted that the wage rates for 1915 and 1918 were based upon information furnished by both employers' and employees' associations, while the averages for 1921 were based upon statistics supplied by the employers' associations only. A combined average such as is shown for 1915 and 1918 might indicate a somewhat smaller increase. Table 4 gives the average yearly cash wages of farm servants and the average daily and yearly cash wages of permanent day workers (male), in 1915, 1918, and 1921, the value of board being omitted in each instance.[9]

TABLE 4.—AVERAGE CASH WAGES OF FARM SERVANTS AND PERMANENT MALE DAY LABORERS IN DANISH AGRICULTURE IN 1915, 1918, AND 1921, BY SEX AND SEASON.

[Krone at par=26.8 cents.]

Year.	Average yearly cash wages of farm servants.						Cash wages of permanent male day laborers.			
	Men.			Women.			Average daily wages.			Average yearly wages.
	Summer.	Winter.	Total.	Summer.	Winter.	Total.	Spring and summer.	Autumn.	Winter.	
	Kroner.	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*	*Kroner.*
1915	285	156	441	153	111	264	2.94	3.36	2.19	830
1918	438	211	649	204	142	346	4.84	5.59	3.59	1,400
1921	569	374	943	333	279	612	7.65	9.08	7.23	2,293

[8] Great Britain. Ministry of Labor. Labor Overseas, London, April–June, 1920, p. 51.
[9] Denmark. Statens Statistiske Bureau. Statistisk Aarbog, 1922. Copenhagen, 1922, p. 128.

Wage Increases and Cost of Living.

Between July, 1914, and July, 1918, cost of living in Denmark increased 82 per cent and the wage increases, based on data presented in Tables 1 and 2, show that for this period the yearly earnings of agricultural workers had failed to keep pace with the increased living costs. But cash wages at least continued to increase with the rising cost of the family budget, which reached its peak, 164 per cent above the 1914 level, in January, 1921, and then began to fall, reaching 137 per cent in July, 1921.[10] A comparison of the average yearly cash wages of permanent workers prevailing in 1921 with those current in 1915 (see Table 4) indicates increases as follows: Farm servants (male), 114 per cent; farm servants (female), 132 per cent; permanent male day laborers, 176 per cent. If the value of board and lodging furnished farm servants were included in the comparisons, their wage increases, like those of the permanent day laborers, would doubtless also be somewhat greater than the increase in the cost-of-living figure.

Overtime.

OVERTIME is allowed and the agreements provide that the laborers are to be paid, when overtime is worked, the daily wages of the regular farm workers plus 50 per cent for ordinary overtime and 100 per cent for Sundays and holidays as well as for night work, exception being made for additional work connected with the care of livestock.

Piecework.

PIECEWORK is not done on an extensive scale in Danish agriculture, only about 12 per cent of the daily work being paid for on this basis. It is more common on the small farms than on the large estates.

By the terms of the agreement reached after the agricultural strike of 1921 piecework rates for the sugar-beet industry ranged, per one and two-fifths acres, from 8 to 39 kroner ($2.14 to $10.45, par) for weeding, and from 67 to 70 kroner ($17.96 to $18.76, par) for pulling. The prices for work in turnips per one and two-fifths acres ranged from 8 to 30 kroner ($2.14 to $8.04, par) for weeding, and were fixed at 35 kroner ($9.38, par) for pulling.

Collective Bargaining.

COLLECTIVE bargaining as a general means of making wage contracts has been gradually increasing among agricultural workers since 1918–19, the parties to these agreements being the recently organized employers' associations and the agricultural unions. The application of these agreements gradually widened until in 1921 practically all classes of farm workers, except servant girls engaged chiefly in domestic work, were included. Reports from the agricultural labor unions state that through the operation of the agreements wages and other working conditions among Danish agricultural labor have gradually become more uniform, and unemployment has decreased.

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[10] Denmark. Statens Statistiske Bureau. Statistiske Aarbog, 1922. Copenhagen, 1922, p. 98.

It had been customary, for instance, to import Polish workers, largely women, for seasonal work because they were willing to accept lower wages than the Danish workers. They naturally displaced a corresponding number of Danish workers, who were either driven into industry or had irregular employment. But the insistence on the part of the unions that these foreign workers be included in the collective agreements is said to have resulted in a marked decrease in the importation of foreign workers (from 14,000 in 1914 to 4,000 in 1921) and a corresponding reduction in unemployment among Danish agricultural workers.

Wage Contracts.

PERMANENT, or regular, farm workers usually make personal contracts with their employers, under the terms of which they are guaranteed daily work, three months' notice being given on either side in case of the termination of an agreement. These contracts are not dependent upon the workers being housed by their employers. In the case of the irregular workers, no notice is required to terminate employment. A law dealing in great detail with the contractual relation of master and servant and superseding all previous legislation of this character in Denmark went into operation May 6, 1921. The new law relates chiefly to permanent workers under 18 years of age, but unless contracts with men over 18 years of age contain divergent clauses the provisions laid down for minors apply. A summarization of its most important provisions bearing on wages follows: [11]

Contracts.

Contracts usually extend over half-year periods, beginning May 1 and November 1. They can not, however, be made binding for more than one year. Notice must be given in all cases, the length of such notice depending upon the duration of the contract. For an agreement covering one month 15 days' notice is required. The half yearly or yearly contracts provide for three months' notice. At the cessation of an agreement the worker is entitled to a day in which to seek a new position.

Board and Lodging.

If the worker receives board as a part of his compensation, good, wholesome, and sufficient food must be furnished. Each worker has his own place at table. No alcoholic drinks may be given him, nor may any be stored in his room. Rooms for farm servants who are lodged by their employers must be light and airy and have windows which may be easily opened. Sixteen cubic meters of air are prescribed for one person in a room and 25 cubic meters for two persons in a room. As regards buildings now in existence, the enforcement of the regulation regarding air space is to be postponed for at least three years. If the servant's room is in a stable, it must not have a direct entrance to the stable. Rooms in which servants are lodged must contain a bed and a chair for each occupant, a table, and a washstand. Clean sheets must be provided at least once a month, and a clean towel at least once a week. During the winter season each farm must furnish a properly heated room in which servants can spend their spare time.

[11] Social Forsorg, Copenhagen, September, 1921, pp. 199–206.

Payment of Wages.

If the agreement is for less than six months the servant can demand monthly payment of wages; but if the contract is for a half year or longer, the servant can, at the end of three months, demand his wages for the first month's service, at the end of four months his wages for the second month's work, and so on, the employer always holding back two months' wages until the termination of the period covered by the agreement.

Fixing of Wages.

Where the amount of wages is not fixed in the agreement the prevailing rate in the locality must be paid, two-thirds of the wage for a whole year being considered an equitable wage for the summer half year and two-thirds of the wage for the summer half year as an acceptable wage for the last three months of the year.

In case of a termination of service before the time agreed upon the servant must be paid what he has earned. But if the servant has absented himself from work during his period of service for reasons other than sickness or legal vacation, he loses his right to a proportionate amount of his wages.

Annual Vacation.

A permanent worker who is hired for six months or who has worked for that time is entitled to three week days of leave, while a man hired for a whole year may demand six week days of leave during the period of his service, the days in each instance to be granted as the worker wishes them.

Care of Workers in Case of Illness.

Specific provision is made for the care of sick workmen. In case of a worker's sickness the farmer must furnish proper nursing for him. The employer may remove the sick worker to a public hospital, in case he does not wish to keep him in his own house, but generally the employer is held responsible if such removal affects the sick person adversely. Where the sickness is due to no fault of the worker or of the employer, the latter must pay wages and provide board and lodging while the worker remains in his house. After the worker has been sick a month the contract may be terminated by either party.

Miscellaneous Provisions.

Aside from those provisions of the act dealing either directly or indirectly with wages and hours, there are many others dealing with conditions affecting the keeping of contracts, etc., and include the following: Minors under 16 must not be given work beyond their strength or kept at work beyond their normal working hours. Children may not be employed during school hours. Servants over 16 and under 18 years of age must be given time for school attendance. Employment at night in case of servants over 16 and under 18 years of age carries with it the right to a corresponding rest period the following day.

Agricultural Conciliation Committee.

Agricultural disputes as to legal relations between farmers and their employees are to be referred in the first instance to an agricultural conciliation committee, which is elected in each commune by

the parish council for a term of three years. The committee is composed of four members (some of whom may be women) representing both the farmers and their workers. If agreement is not reached the matter may be referred to a court of law. Penalties fixed for violations of the law vary from 10 to 500 kroner ($2.68 to $134, par.).

Hours of Labor.

HOURS of labor in Danish agriculture are fixed either by collective agreement or by custom. In 1918 daily working hours for farm labor were 10 in spring and summer, 10 to 10½ in the fall, and 8 to 8½ in winter. The agreements entered into between the Association of Employers in Agriculture and Forestry in Denmark and the Danish Farm Workers' Union on February 13, 1920, and June 2, 1921, make provision for a basic day of varying lengths according to the season: March 1 to November 15, 9½ hours, between 6 a. m. and 5.30 p. m.; November 15 to November 30, 8½ hours; December 1 to February 15, 8 hours, between 7 a. m. and 5 p. m.; February 16 to February 28, 9 hours, between 6.30 a. m. and 5.30 p. m.

The working day may be increased to 10 hours during the harvest season, and in the sugar-beet districts one-half hour may be added to the basic day from November 15 to 30, provided a corresponding reduction is made in the daily hours of work from March 1 to 15. The agreements provide that horsemen may stop work 20 minutes before the appointed time in order to care for their horses. This last arrangement regarding hours differs from that prevailing in some other European countries, where the time spent on the care of horses is added to the regular day. One-half hour is allowed for breakfast and an hour and a half for dinner. Provisions for an annual vacation appear on page 137.

On the small farms, where the work is done almost entirely by the family, the hours are much longer, and since small holdings include so large a proportion of the arable area, the influence of the hours worked upon them is felt by the larger farms, which must compete with them.

Factory Hours in Osaka, Japan.

ACCORDING to Industrial and Labor Information, published by the International Labor Office September 15, 1922 (pp. 31, 32), an investigation by the Department for Social Affairs of the Osaka Municipal Office shows that the following hours are in force in Government and private factories:

DAILY HOURS OF WORK IN GOVERNMENT AND PRIVATE FACTORIES IN OSAKA.

Kind of factory.	Number of factories in which the daily hours of work were—								
	6½	7	7½	8	8½	9	9½	10	11
Government					1	6			
Private	1	1	1	41	4	42	9	27	19

The average length of the working day in private factories was found to be 9 hours and 10 minutes, while in Government factories it was 8 hours and 56 minutes. The 8-hour day was in effect in many establishments in the engineering and chemical industries and in gas and electricity works, while the 9-hour day was in effect generally in food and drink factories and among the miscellaneous group, and the 10-hour day in textile factories. Overtime of 2 hours per day was worked regularly or occasionally in part of the establishments in the different industries, while night work was in operation in 82 factories.

Rest intervals during the day averaged 59 minutes in Government factories and 50 minutes in private factories, and four rest days per month were commonly allowed in Government works and two in private establishments.

Wages of Stonemasons and Carpenters in Norway, 1915-16 to 1921-22.

THE following table, taken from Arbeidslønnen i Jordbruket for Driftsåret 1921–22, issued by the Society for Norway's Welfare (*Selskap for Norges Vel*), gives wages of stonemasons and carpenters for the fiscal years 1915–16 to 1921–22. The wages quoted are averages for the whole country.

AVERAGE DAILY WAGES FOR STONEMASONS AND CARPENTERS IN NORWAY, 1915–16 TO 1921–22.

[1 krone at par=26.8 cents.]

Actual wages.

Fiscal year.	During summer half year.				During winter half year.			
	With board.		Without board.		With board.		Without board.	
	Stone-masons.	Car-penters.	Stone-masons.	Car-penters.	Stone-masons.	Car-penters.	Stone-masons.	Car-penters.
	Kr.	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*	*Kr.*
1915–16	3.75	3.68	4.88	4.81	3.14	3.12	4.26	4.26
1916–17	4.91	4.80	6.56	6.43	4.35	4.30	5.93	5.92
1917–18	6.92	6.72	9.38	9.23	6.12	6.17	8.51	8.56
1918–19	9.14	9.08	12.58	12.42	8.05	8.09	11.26	11.37
1919–20	10.85	10.85	14.91	14.72	9.48	9.48	13.17	13.01
1920–21	12.14	13.21	16.07	16.14	10.24	10.52	14.25	14.40
1921–22	9.67	9.90	12.86	13.29	7.99	8.11	11.13	11.25
	Relative wages.							
1915–16	100	100	100	100	100	100	100	100
1916–17	131	130	134	134	139	138	139	139
1917–18	185	183	192	192	195	198	200	201
1918–19	244	247	258	258	256	259	264	267
1919–20	289	295	306	306	302	304	309	305
1920–21	324	359	329	336	326	337	335	338
1921–22	258	269	264	276	254	260	261	264

Wages and Working Conditions in Swedish Tobacco Manufacture During 1921.

SOCIALA MEDDELANDEN No. 8, 1922, issued by the Swedish Labor Bureau (*Socialstyrelsen*) publishes (pp. 640–643) part of the report of the Swedish Tobacco Monopoly Co. (Ltd.)[1] for 1921, showing conditions as to work and wages.

[1] Subject to State control by Royal decree of Dec. 14, 1914.

The administrative personnel on December 31, 1921, numbered 517 persons (295 men and 222 women) as against 753 for the previous year. The decrease is due mainly to diminished production and to reorganization.

In December the number of workers was 3,837, while in 1920 it was 5,135, a decrease of 1,298, or 25.3 per cent.

The administrative personnel is divided into certain groups and classes, the wage for the same position in each of the different districts[2] being fixed in accordance with the cost of living in that place. The wage is generally a basic wage with a high-cost-of-living bonus, the latter being a certain percentage of the basic wage on a sliding scale based on the cost-of-living index of the Swedish Labor Bureau, the highest percentage being on the lowest basic wage. Thus, for January, 1921, and also for the last quarter of 1920, when the cost-of-living index was 281, the high-cost-of-living bonus for a yearly salary of 1,000 kronor ($268, par) was 161 per cent, while for a salary of 7,500 kronor ($2,010, par) it was 142 per cent, and for the last months of 1921 with the cost of living index 231 the per cent of increase for the same salaries was 121 and 111, respectively.

In addition to the high-cost-of-living bonus there is granted to heads of families an allowance amounting to 5 per cent of the basic wage, but which shall not be less than 100 kronor ($26.80, par) nor more than 335 kronor ($89.78, par), per annum for each dependent. Certain groups of employees receive so-called tobacco money, ranging from 3 to 6 kronor (80 cents to $1.61, par) per week.

The table following shows the average total earnings, basic wage, and wage additions for the administrative personnel of the company in 1921:

AVERAGE TOTAL EARNINGS, BASIC WAGE, AND WAGE ADDITIONS FOR ADMINISTRATIVE PERSONNEL DURING 1921.

[Krona at par=26.8 cents.]

Occupation.	Number.	Average total earnings.	Average basic wage.	Additions to wage.		
				Average amount.	Per cent of total earnings.	Per cent of basic wage.
Male.		*Kronor.*	*Kronor.*	*Kronor.*		
Managers	38	17,703	8,006	9,697	54.8	121.1
Traveling salesmen	15	10,458	4,733	5,725	54.7	121.0
Distribution superintendents	8	6,791	2,941	3,850	56.7	130.9
Stock superintendents	14	6,517	2,822	3,695	56.7	130.9
Clerks	106	5,183	2,238	2,945	56.8	131.6
Shop superintendents	25	8,974	3,932	5,042	56.2	128.2
Assistant shop superintendents and draftsmen	23	6,738	2,923	3,815	56.6	130.5
Foremen	57	5,745	2,471	3,274	57.0	132.5
Irregularly employed	9	4,074	1,947	2,127	52.2	109.2
Total	295	7,688	3,388	4,300	55.9	126.9
Female.						
Correspondence clerks	3	6,030	2,600	3,430	56.9	131.9
Cashiers	35	4,337	1,862	2,475	57.1	132.9
Clerks	131	3,594	1,536	2,058	57.3	134.0
Telephone operators	4	3,627	1,550	2,077	57.3	134.0
Factory division superintendents	6	5,041	2,166	2,875	57.0	132.7
Interest office superintendents	7	5,373	2,312	3,061	57.0	132.4
Forewomen and amanuenses	20	3,470	1,458	2,012	58.0	138.0
Irregularly employed	16	3,156	1,348	1,808	57.3	134.1
Total	222	3,797	1,623	2,174	57.3	133.9
Grand total	517	6,017	2,630	3,387	56.3	128.8

[2] The company has factories in 10 different cities.

The 1919 agreement between the Swedish Tobacco Workers' Union and the tobacco company expired in March, 1921, and the new agreement was mainly an extension of the old agreement until end of January, 1922. Under the agreement the wages were to be a basic wage with a high-cost-of-living bonus regulated according to the cost-of-living index of the Labor Bureau.

For men and women over 60 years of age the average yearly wage during 1921 was 3,692 and 1,973 kronor ($989 and $529, par), respectively.

The figures in the following table apply to workers from 21 to 60 years of age and include the basic wage and high-cost-of-living bonus. In addition, a quarterly family allowance of 35 kronor ($9.38, par) for wife and 15 kronor ($4.02, par) for any other dependent is granted in accordance with specified regulations of the company and expenditures for this amounted to 190,514 kronor ($51,058, par) in 1921, or on an average 50 kronor ($13.40, par) per worker.

AVERAGE TOTAL HOURLY AND YEARLY WAGES FOR WORKERS BETWEEN 21 AND 60 YEARS OF AGE, IN 1921, AND PER CENT OF AVERAGE WAGE IN 1920.

[Öre at par=0.268 cent; krona at par=26.8 cents.]

Occupation.	Average wage per hour.		Average wage per year.	
	Amount.	Per cent of average wage in 1920.	Amount.	Per cent of average wage in 1920.
Male.	*Öre.*		*Kronor.*	
Cigar makers	174	92	3,659	91
Chewing-tobacco makers	175	95	3,846	94
Snuff makers	175	101	4,141	[1] 104
Miscellaneous workers	156	97	3,566	99
Tenders on cigarette and casing machines	287	103	6,496	103
Female.				
Preparers of tobacco for—				
Cigars	104	89	2,097	85
Cigarettes	115	93	2,209	88
Smoking	95	94	2,070	103
Chewing	88	87	1,768	83
Cigar makers	115	85	2,330	84
Cigarette makers	139	97	2,743	94
Chewing-tobacco makers	103	95	2,230	94
Packers:				
Smoking tobacco	102	94	2,201	100
Snuff	106	93	2,158	88
Cigar sorters and packers	121	88	2,599	87
Carton workers	111	94	2,347	94
Miscellaneous workers	92	88	1,979	89

[1] Yearly income in 1920 low because of work stoppages.

Various welfare provisions for the employees are the sick funds, interest offices, educational courses, and cafeterias. Certain workers received food checks as unemployment aid.

The average time lost on account of sickness during the year was 10.9 days for workers and 7.1 days for the administrative personnel.

Eight-Hour Day in Switzerland.[1]

THERE is no law in Switzerland regulating in a uniform manner the daily duration of labor in all the branches of commerce and industry, but the 8-hour day has been introduced in principle (1) by the Federal law of June 27, 1919, and the decree of October 30, 1919, putting it into effect in all factories; (2) by the law of March 6, 1920, in transportation enterprises (railroads, etc.); and (3) by certain cantonal regulations in the arts and trades and in commerce. While this legislation established in principle the day of eight hours, it provided for certain limitations, as follows: (1) According to article 41 of the law relating to factories, 52 hours a week could be allowed for urgent reasons, for example, when it became necessary in order to meet foreign competition; article 53 allowed special regulations for night work and Sunday; and article 64 allowed additional hours to be worked for preparatory or supplementary work. The sanction of the Federal authorities is necessary, however, in each particular case. (2) The law concerning transportation enterprises is much more elastic than the preceding law, particularly in regard to private companies, as it allows the 9-hour day for certain grades of workers and under special circumstances.

In spite of these special regulations, however, the delays incidental to the necessary authorizations, the difficulties due to the effect of the rate of exchange on foreign competition, and general unemployment caused a reaction against the 8-hour day which resulted in the National Council passing an amendment to article 41 on June 27, 1922. This amendment, which is to be effective for three years, provides that "in times of grave economic crisis of a general character, the normal duration of labor can be prolonged for each worker to 54 hours per week. This disposition can be put into effect only when the National Council decides there is such a crisis."

"In the absence of such a crisis, and when and for as long a time as important considerations justify it, the National Council can permit, for industries in general or for special establishments, a lengthening of the working week up to 54 hours."

Opponents of the bill, which has not yet passed the State Council have called for a referendum vote so that the question will come before the people as a whole for final decision.

[1] Union des Industries Métallurgiques et Minières. Revue mensuelle des questions sociales, ouvrières et fiscales, Paris, July, 1922, pp. 101–103.

MINIMUM WAGE.

Massachusetts.

Enforcement of Decrees.

THE Minimum Wage Commission of Massachusetts has issued a mimeographed report giving in text and tabular form an account of its efforts to secure compliance with the minimum wage decrees in force in the State. The report covers the year ending November 30, 1921, during which period inspections were made in nine occupations. These were the wholesale millinery, corset, and candy industries, office and other building cleaners, canning and preserving, knit goods, paper-box making, minor confectionery and food preparations, and women's clothing industries. Two inspections were made in the candy occupation, one in February and one in November. In two occupations the inspections were the first under the decrees, office and other building cleaners and minor confectionery and food preparations. In the other cases the inspections were repetitions of earlier work.

Weekly earnings and rates in the various occupations at the time of the inspections are shown in the report. Not all establishments are covered, but enough to indicate the measure of compliance with the law. In some cases the inspection was restricted to establishments known to have failed to measure up to the standards fixed by the decrees. A total of 702 firms were visited and 14,690 records secured. Of these firms it was found that 550 had fully complied with the law. Of the 959 cases of noncompliance by the remaining 152 firms, 493 were adjusted, 271 by raising wages and 81 by reducing hours, while 51 women were discharged and 39 left the employment voluntarily. There were 200 cases pending at the close of the fiscal year, 25 involving the question of the classification of the firm. In accordance with the provisions of the law, 266 cases of noncompliance were advertised.

In the wholesale millinery occupation the inspection was made in December, 1920, and January, 1921, under a decree which had been in force at that time practically a full year. The rate fixed was $11 per week for experienced employees, with rates of $6, $7, $8, and $9 for learners and apprentices. Records were secured for 776 women in 42 establishments, which showed full compliance with the recommendations of the decree in every case. The investigation in 1916 showed a median wage rate between $8 and $9; in 1919, between $12 and $13; and in 1920–21, between $17 and $18. It is evident that the minimum rate of $11 has been entirely lost sight of, at least so far as experienced workers are concerned, though 18.7 per cent of the women employed full time still have weekly rates below $13 per week and 6.2 per cent receive less than $11; this number would include learners and apprentices.

In the corset industry the current decree became effective March 1, 1920. The inspection in January and February of the following year covered 17 factories, in which 1,500 women and girls were employed. The rate fixed by the decree is $13 per week with rates of $8 and $10 for workers of less than one year's experience. In 15 factories full compliance was found, while in the two remaining factories there were 3 cases of noncompliance; all were adjusted by the raising of wages. In 1919, 31.3 per cent of the women had weekly rates under $10, while only 15.2 per cent had rates of $15 and over. At the time of the last inspection only 3.6 per cent had weekly rates under $10, while those receiving $15 and more per week amounted to 57.4 per cent of the number employed.

In the candy industry two inspections were made, one in the early part of 1921 and another in November. The first covered 113 establishments, employing 4,907 women, while the latter affected 37 establishments with 3,798 women. In the early part of the year full compliance was found in 102 establishments for 99.3 per cent of the women. In 11 establishments there were 35 cases of noncompliance, of which 26 were adjusted by raising wages, 1 special license was granted, and 8 women left the employment of the firm. The later investigation showed 7 firms employing 25 women in disregard of the decree. Of these, 18 were adjusted by raising wages, 3 women left before reinspection by the commission, and 4 cases were pending at the end of the fiscal year. The decree under which the inspections were made became effective January 1, 1920, and fixed a rate of $12.50 per week for experienced and $8 for inexperienced workers. Before the decree became effective, in 1918, only 8.7 per cent of the women were receiving more than $12 per week, while 62.8 per cent received less than $9. In 1920 more than one-half (53.9 per cent) of the workers received more than $12, and but 21.6 per cent received less than $9. The improvement shown continued to manifest itself in the early part of 1921, the condition holding also for the later inspection in November, when more than three-fifths (61.8 per cent) were found to be earning $12 or over and but 16.9 per cent earning less than $9.

For office and other building cleaners the showing is less favorable as to ready compliance. The order became effective on February 1, 1921, fixing a rate of 37 cents per hour as against 30 cents fixed by an earlier decree. An inspection in March and June to determine the measure of acceptance of the new rate covered 344 buildings in which 1,985 women were employed. In 56 buildings 425 cases of noncompliance were found. Wages were increased in 152 cases, other means of adjustment being adopted in 139 other cases. In one case a woman voluntarily left the service and 50 women were discharged. In accordance with the provisions of the law advertisement was made of 106 cases of noncompliance; 28 cases were pending at the date of the report. In spite of opposition to the decree there has been a distinct advance in the wage level for the occupation.

The canning and preserving industry was inspected for the third time under the decree of 1919, in September and October, 1921. The minimum is but $11 for experienced workers, a rate of $8.50 being fixed for all others. The inspection of 32 establishments employing 214 women showed but 4 cases of noncompliance in 4

firms. Of these 3 were adjusted by raising wages, while the fourth woman left the employment. In this industry again the minimum is so low that the median wage exceeded it in 1919, being between $11 and $11.99, and advanced to between $12 and $12.99 in 1920, while in 1921 the median had reached the rate, $14 to $14.99.

The current decree in the knit goods industry became effective July 1, 1920, providing a minimum of $13.75 for women and girls with 40 weeks' experience, beginners receiving at least $8.50. An inspection of 33 establishments employing 1,110 women showed full compliance by 24 employers. In the 9 remaining establishments there were 17 instances of noncompliance; in 14 of these the wages were raised, 1 woman left voluntarily, and 2 cases were pending at the time of this report. Wages show an increase from 1919 to 1920 with a slight relapse in 1921. Thus in 1919 only 9.9 per cent received as much as $15 per week, while in 1920, 55.6 per cent received this amount, falling back to 40.3 per cent in 1921. The number receiving less than $9 per week was 35.8 per cent of the total in 1919, 7.4 per cent in 1920, and 13.4 per cent in 1921.

In the paper-box industry reinspection was chiefly for the purpose of securing the adjustment of outstanding cases of noncompliance, this industry being one in which persistent opposition has developed. The decree involved became effective in 1920, and fixed a rate of $15.50 per week for experienced workers, other rates being fixed at $9 and $11. There were 302 cases of noncompliance in 27 firms, 210 of these being left over from 1920. Of these 302 cases, 14 were adjusted by raising wages, 13 women were employed at different lines of work so as to enable them to earn the minimum, 14 girls left their employment voluntarily, and 1 was discharged. There were 160 cases of noncompliance in the paper-box firms advertised by the commission and 78 cases were pending at the end of the year. The continued opposition, however, has not prevented the decree from improving the conditions in the occupation. Before its establishment, 74.4 per cent of the women had rates under $12 per week, and only 6.3 per cent had rates of $15 and over. The inspection in 1920 showed that only 27.7 per cent received less than $12, while 35.9 per cent received $15 or more. No complete inspection was made in 1921, the work being limited to noncomplying firms, but even here wage rates were higher than at the time of the investigation before the establishment of the rate.

The decree in minor confectionery and food preparations became effective only on November 1, 1921, but inspections made during that month showed full compliance in 18 out of 21 establishments, while 3 firms showed 57 cases of noncompliance. One case was adjusted by raising wages, leaving 56 cases in 2 firms pending adjustment at the end of the year. The effect of the decree is said to be indicated by the fact that prior to its establishment 72.9 per cent of the workers earned less than $12 per week, while an inspection made during the weeks immediately following the inception of the decree showed only 56.3 per cent to be earning less than $12.

In the women's clothing industry there was merely a reinspection of cases left over from the previous year. Visits were made to 33 firms in connection with 91 cases of noncompliance. Of these 59 were adjusted, 40 by increase in wages and 1 by special license.

There were 32 cases pending at the end of the fiscal year, 25 of them involving the question of the classification of the firm.

In connection with the foregoing report it is of interest to note that hearings are being held in reference to the proposition to make the minimum-wage law of the State compulsory, instead of leaving the enforcement merely to the matter of public opinion, which is directed to recalcitrant firms by means of advertisements of their noncompliance. The second of these hearings was set for October 11, 1922.

New Wage Board for the Brush Industry.

A STATEMENT was made in the MONTHLY LABOR REVIEW for April, 1922 (p. 100), that a new rate for the brush occupation had been provisionally approved by the Minimum Wage Commission of Massachusetts. Later information discloses the final rejection of the recommendations of the board. The first board, which sat in 1913–14, was reconvened in 1921, but as its recommendations did not meet the approval of the commission, a new board of seven members will be organized, 3 each representing employers and employees and one disinterested person to represent the public and act as chairman. The initial meeting was set for October 3, 1922.

LABOR AGREEMENTS, AWARDS, AND DECISIONS.

Ladies' Garment Industry—New York City.

THE various unions connected with the International Ladies' Garment workers in New York City operating under the title of Joint Board of Cloak Makers' Unions of New York City have recently concluded two agreements, one with the Cloak, Suit and Skirt Manufacturers' Protective Association, July 17, 1922, superseding an agreement made three years before, and the other with the Merchants Ladies' Garment Association, June 1, 1922. The first-named association comprises the largest and most prominent employers in the industry. The second is one of jobbers; that is, individuals who engage contractors to manufacture garments according to samples furnished.

Agreement with Manufacturers' Protective Association.

THE agreement made with the manufacturers' association was supplemental to that of May 29, 1919, as amended by the award of the governor's board in January, 1920, and consists of an amended reading of clause 14 and the insertion of a new clause placed at the end of the old agreement.

Clause 14 relates to strikes and lockouts, and, in the agreement of 1919, the provisions were very meagerly stated. The added statements relate mainly to procedure in cases of violation of the agreement. As amended, the clause reads as follows:

14. During the term of this agreement there shall be no general lockout, general strike, individual shop lockout, individual shop strike, or shop stoppage for any reason or cause whatsoever. There shall be no individual lockout, shop strike, or stoppage pending the determination of any complaint or grievance. Should the employees in any shop or factory cause a stoppage of work or shop strike, or should there result in any shop or factory a stoppage of work or shop strike, notice thereof shall be given by the association to the union. The latter obligates itself to return the striking workers and those who have stopped work to their work in the shop within 24 hours after the receipt by the union of such notice, and until the expiration of such time it shall not be deemed that the striking workers have abandoned their employment. In the event of a substantial violation of this clause on the part of the union, the association shall have the option to terminate this agreement. The existence or nonexistence of such substantial violation shall be determined by the trial board, as constituted under this contract, on all the facts and circumstances. The union agrees that if the striking workers fail to return to work within the stipulated time it will forthwith state in writing and in the appropriate press or otherwise that there is not a strike in or against such shop in which the work has been stopped and that the shop is in good standing with the union and entitled to all the rights, benefits, and privileges provided for by the terms of this contract. Should any member of the association cause a lockout in his or its shop or should there result in any shop or factory a lockout, notice thereof shall be given by the union to the association. The association obligates itself, within 24 hours after the receipt of such notice, to terminate the lockout and to cause its members to reemploy the workers, and until the expiration of such time it shall not be deemed that the employer has forfeited his rights

under the agreement. In the event of a substantial violation of this clause on the part of the association, the union shall have the option to terminate this agreement. The existence or nonexistence of such substantial violation shall be determined by the trial board on all the facts and circumstances.

The added clause, No. 23, relates to the creation of a wage board to make a study of the earnings of the workers and periods of employment, and within five months to render a report which shall be used as a basis for adjusting issues between the unions and the manufacturers. The clause reads as follows:

23. There shall be created, coincident with the execution of this agreement, a wage board, composed of three members, one to be selected by the association and one by the union. The third shall be an impartial person in no wise connected with either the association or the union and shall be the selection of both. Should either of the parties hereto fail to name its member of the wage board within 10 days from the date of the execution of this agreement or should the two, so selected, fail to agree upon the third within 10 days after they have been selected, then, and in either of such events and at the request of either of the parties hereto, the Governor of the State of New York shall be authorized to appoint such person or umpire which the party or parties hereto have so failed to name, as the case may be. It shall be the duty of the wage board to direct a complete survey and make an intensive study of the earnings of the workers and periods of such workers' employment in the industry, and for this purpose all factory books and records of the union and association and the members of the same bearing on such subjects of earnings of the workers and of their periods of employment shall be open to the examination of the board and its accredited representatives at all reasonable times. The union will make every effort to secure permission for a similar examination by the said board of the books and records of manufacturers who are not members of the association, and will furnish the board true copies of the pay rolls of such employers under contract with it, as the board may from time to time call for. The union will insert a provision enabling it to secure such copies of such pay rolls in all its contracts with employers. Within five months of the date of the commencement of this agreement, the board shall make and render a report on the subject of earnings of the workers and their periods of employment, which report shall be considered by the parties hereto in joint conference with a view of adjusting all issues on such subjects. Should the conference fail to reach an agreement within one month from the submission of the report, the points of disagreement shall be submitted to a board of three arbitrators, one to be selected by the association outside of the ranks of its own membership, one to be selected by the union outside its own membership, and a third or umpire to be chosen by the arbitrators so selected by the parties hereto. Should either of the parties hereto fail to name its arbitrator within 10 days after the date when such arbitrator is to be named as above provided, or should the arbitrators named by the respective parties fail to agree upon an umpire within 10 days after their appointment, then and in either of such events, and at the request of either of the parties hereto, the Governor of the State of New York shall be authorized to appoint the arbitrator or arbitrators which the party or parties hereto have so failed to name, or the umpire, as the case may be.

The decision of the board of arbitrators or a majority of them shall be final and binding upon the parties hereto, but in no event shall such decision enter into effect before the 1st day of January, 1923, in which event it shall become operative, and each of the parties binds itself to enforce the terms of such decision.

It is stipulated for and in consideration of the premises and the making of this agreement and in consideration of entering into the same that the parties hereto on behalf of all of their members do mutually relinquish each other from all and every character of claim that ever may have existed on behalf of either against the other, and that all pending litigation between them be discontinued and that orders to this effect may be entered by either party without costs or disbursements.

Agreement with Merchants Ladies' Garment Association.

THE other agreement referred to was made for the purpose of preventing the spread of "social" shops, a recently introduced form, growing with great rapidity, and believed by the unions to contain features that may cause a return of the sweat-shop evil.

This agreement is to continue for two years, expiring June 1, 1924, and reads as follows:

Whereas the association is composed of a large number of merchants engaged in the cloak, suit, and skirt industry which merchants cause garments to be made for them by various and divers manufacturers, submanufacturers and contractors, and

Whereas the union desires the members of the association to obligate themselves that such members will not knowingly cause garments to be made in what are commonly known as "social shops," and

Whereas the association is willing to obligate itself that none of its members will knowingly cause any garments to be made for them in any factory not under contractual relations with the union predicated upon the representation of the union that substantially if not all of the manufacturers, contractors, and submanufacturers are in contractual relations with the union:

Therefore the parties hereto have agreed as follows:

First. The association agrees that none of its members shall manufacture nor cause any work to be manufactured for them directly or indirectly in any factory not under contractual relations with the union to observe its standards. For this purpose the association will submit to the union a list of all its members, and the union will submit to the association a list of all manufacturers and submanufacturers in the city of New York who are under contractual relations with the union. In the event that a member of the association has arranged for the manufacture of garments in a shop in the city of New York not on the latest union complete official list, the said member shall at once submit the name of such manufacturer to the association and the association shall submit such name to the union. Upon notification by the union to the association, in writing, that such shop is not in contractual relations with the union the association agrees that the member will immediately cease to do business with such shop.

Second. The association agrees that none of its members either for themselves or for any other jobber, manufacturer, or submanufacturer shall knowingly make nor cause any work to be made in any shop directly or indirectly through any channel where the union has declared a strike for the violation of the prescribed standards in the industry.

Third. Wherever "city of New York" appears in this agreement the parties intend the same to include and embrace "Greater New York," the State of New Jersey as far west and including "Vineland, N. J.," and the State of Connecticut as far east and including "Bridgeport, Conn.," and the obligations on the part of the parties hereto shall be understood to extend only to the territory specifically described in this agreement.

Fourth. If any member of the association shall knowingly violate any of these terms the union shall serve written notice thereof upon the association and such complaint shall be investigated by a representative of the union and a representative of the association, and if not adjusted within 48 hours such complaint shall be referred to an adjustment committee to consist of one representative of the association and one representative of the union, and if such committee can not agree a third person shall be called in to decide whether a breach of this agreement has occurred and the amount of damage, if any, to be paid to the union by reason thereof. The decision of such adjustment committee shall be final. The association further agrees that if any of its members shall knowingly violate any of the terms of this agreement the association shall take proper measures to discipline said member by expulsion or otherwise.

Leather Goods—New York City.

THE agreement between the Associated Leather Goods Manufacturers of the United States of America (inc.) and the Fancy Leather Goods Workers' Union of New York City, which terminated August 30, 1922, was renewed for another year from that date with slight changes, the most prominent one being in the first section. That section had previously read as follows:

The association and the union mutually stipulate that each and every member of their respective organizations is to comply with the terms of this collective agreement.

An addition was made to this section also individually obligating each present member of the association. This was done to prevent members resigning from the association whenever they got into trouble with the union.

The provisions relating to hours, wages, and conditions of labor remained unchanged.

The intimate relation existing between the association and the union is shown in the following sections of the agreement:

5. The association in entering upon this agreement recognizes the right and duty of the union to represent the workers in the industry. The Association stipulates that its members will aid the union in enforcing the principle that those who share in the benefits of the union shall share in its burdens. Every effort shall be made by the union to organize all those workers who are not members of the union and the members of the association agree in good faith to cooperate with the union to that end. Every effort shall be made by the association to enlist as its members all manufacturers who are not members of the association and the union agrees in good faith to cooperate with the association to that end. Upon request of the association the union agrees to permit the association at all times to examine all contracts between the union and manufacturers who are not members of the association for the purpose of ascertaining the conditions of labor obtaining in such factories, and the union pledges itself that in order to carry out in good faith the spirit of this agreement any contract with shops or firms not members of the association will specify conditions at least equal to the terms of this agreement. The association agrees for itself and its members to give the union preference in hiring such new help as may be required from time to time and the union agrees to furnish such workers as the employer may require to the best of its ability upon notification by the employer. In the event that the union is unable to fill the employer's requirements within 48 hours, the employer shall be permitted to select his help from other sources. The union agrees to give a working card to all such workers upon application for affiliation. Every union worker shall present a working card from the union to the chairman of the shop upon the commencement of his employment. No fancy leather goods worker shall be employed who was previously a member of the Fancy Leather Goods Workers' Union and subject to discipline under its rules until he has been reinstated in good standing, and by good standing is meant a member of the union who has complied with all the rules and regulations of the union.

8. The manufacturer is to register the names of his contractors and subsidiary shops with the union immediately after the first job has been completed, and in no event later than one week after business relations have been entered into. The manufacturers are to use their good offices to see that union conditions and control prevail in the contracting and subsidiary shops after due notice by the union that such conditions are not in force. In the event that the union shall find it necessary to call a strike in these outside shops, upon failure of the manufacturer to accomplish desired result, the manufacturer is to discontinue business relations with these outside shops, providing, however, that this clause shall not apply to those subsidiary shops outside of Greater New York and immediate vicinity and Jersey City and immediate vicinity which were in existence prior to the signing of the agreement.

It is the sense of this agreement that the manufacturers are at liberty to buy items and numbers originally produced by outside manufacturers. No factory items shall be given out to contractors or subsidiary shops or shall be bought from other manufacturers when the workers of the inside shop are not fully employed. When it is necessary for the manufacturer to reproduce a factory item into a lower-priced number the workers of the inside shop shall first have the right to refigure such factory item and in such cases where they are able and willing to meet the prices the work shall be given to them.

For the purpose of this agreement a factory item shall mean any article which has once been made in the inside shop or slight modifications of that article. This, however, shall not refer to original samples or actual duplicates for the use of the manufacturer's own salesmen.

Slight modifications shall consist of an addition or an omission of extension pockets, or block bottoms, or handles or frame pockets, or blind or open buttons, or handkerchief pockets, or loops around the handles, or pullers to open frames, which have an established price in articles of equal quality.

For the purposes of this agreement, a contractor shall mean one or more persons working independently outside of the factory of the main manufacturer to whom work

is given to be completed, the materials for all or part of which shall have been cut or partially made in the factory of the main manufacturer.

A subsidiary shop is a shop owned or controlled by the main manufacturer mainly for his own use.

9. No work is to be given out to be made in the homes of the workers: *Provided, however*, That no home worker shall be deprived of a livelihood if such home worker is unable to work in a factory.

15. No arrangement shall be made between the employer and any of his employees for any contracting work to be done inside or outside of his shop. No individual contract shall be entered into by the manufacturer with any of his workers, nor shall the employer exact any security of any character from any of his workers. It is the sense of this agreement that no arrangements shall be made between the employer and his individual workers whereby any system of preference is to be given to the workers, except as hereinbefore provided.

23. It is further agreed that there shall be no stoppage of work or strike or lockout pending the determination of complaints or grievances hereunder throughout the entire period of this contract. In the event of a shop strike or stoppage, it shall be the duty of the union to immediately order the workers to resume work, and no complaint or grievance on the part of such workers shall be considered until they so resume work. In the event of a lockout, it shall be the duty of the association to immediately order the employer to reinstate the workers, and no complaint or grievance on the part of such employer shall be considered until he has so reinstated the workers. All violations of this agreement, and particularly shop strikes, stoppages, or lockouts, shall have precedence before the joint grievance board, and the offending parties shall be subject to such disciplinary measures as the joint grievance board may see fit to impose according to rules and regulations which shall be established by same.

CHILD LABOR.

Work and Welfare of Children in an Anthracite Mining District.

THE Children's Bureau has recently published a study dealing with children aged 13 to 16 in a predominantly mining district.[1] The district chosen included the boroughs of Shenandoah, Gilberton, and Frackville, Pa., and a number of groups of houses, locally known as patches, situated within the general neighborhood. Shenandoah is the business and educational center of the district, a town shut in by high hills which prevent normal expansion; Gilberton is for the most part a "single row of houses along the trolley;" Frackville is built on the hills, and the patches are small settlements, varying in size from 4 or 5 to 25 houses, which are sometimes reached only by difficult and even dangerous paths.

Of children aged 13 to 16 there were in the district something over 3,000, distributed by age and sex as follows:

EMPLOYED CHILDREN, 13 TO 16 YEARS OF AGE, BY AGE AND SEX.

Age.	Boys.	Girls.	Total.
13 years old	376	468	844
14 years old	321	395	716
15 years old	421	373	794
16 years old	444	335	779
Age not reported	2	1	3
Total	1,564	1,572	3,136

Of these, 1,349, or 43 per cent, were employed in regular work, as distinguished from vacation work and after-school work. The proportion of the boys, 57.3 per cent, who had commenced regular work was considerably larger than of the girls, of whom only 28.8 per cent were in this group. For the boys, the mines offered the chief opportunity for employment, 810 being employed in or about them; of the girls regularly employed, 265 were in factory work, the garment factories taking the largest proportion, 157 were in domestic service, and the rest were scattered in various occupations.

According to the Pennsylvania laws, it is legal to employ boys between 14 and 16 in mining occupations above ground, provided they have the proper work certificates, but illegal to let them work underground before they reach 16. Consequently boys are usually employed at first in the breakers, above ground, and it was here that the largest number of the boys engaged in mining occupations were found. Nevertheless, 163 were found whose earliest employment

[1] U. S. Children's Bureau Publication No. 106: Child labor and the welfare of children in an anthracite coal-mining district. Washington, 1922. 94 pp.

had been below ground, 137 of them having been so employed before they were 16 and 25 before they were 14. As the mines are the chief employers in these districts, there is a tendency for the children to go into them at an undesirably early age.

It would be superfluous to point out that, in view of the hazards of mining, young boys should not be employed in the mines or around the breakers. Public opinion had already prohibited underground work in Pennsylvania and in most other States, and the Federal Government had imposed a penalty in the form of a tax if children under 16 were employed in or about a mine. * * *

It was in the mines that the youngest children most readily found employment in this section. Among the boys included in this study who had been employed in full-time work, 92.5 per cent of those under 13 years of age and 93.7 per cent of those 13 years old at the time of entering regular employment had engaged in mining, while of those 14 and 15 years of age the percentages entering mining occupations were 89.1 and 89, respectively.

From 1,621 children were secured their reasons for going to work. Family need was the most common cause, being assigned by 55 per cent of the group; desire to work, desire for spending money, and dissatisfaction with school were the other important reasons. Family need as a cause was given more generally by the younger children and the girls than by the group as a whole. An effort was made to test the importance of this reason by a study of the yearly earnings of the father, and the connection between low earnings and the work of the children seemed fairly apparent.

Of the 483 children whose fathers earned less than $850 a year, 238—almost one-half—had left school for full-time employment, while of the 183 children whose fathers earned $1,850 or more a year only 11.5 per cent were so employed. * * * In these anthracite towns 65 per cent of the boys whose fathers reported that they earned less than $850 were employed at regular work, as compared with only 12 per cent of the boys whose fathers earned $1,850 and over.

Turning to the conditions under which these children are growing up, the report gives a depressing picture of the situation. The sanitary or, rather, insanitary conditions in the towns considered almost beggar description. The location of the towns and patches, either hemmed in by the hills, so that expansion is impossible, or clinging to their sides wherever there has seemed a chance for a group of houses, even though the spot be almost inaccessible, makes overcrowding common and the provision of ordinary amenities of life difficult. In Shenandoah, for instance, as the population increased the ground was built over, until by 1920 there were 24,726 persons living on an area a little more than one-half of a square mile. "This is a density in round numbers of 43,000 per square mile. The density in New York was 19,000 and in Chicago 14,000 in 1920."

In the areas selected for intensive study of housing conditions 68 per cent of the people were sleeping with three or more persons in a room and 36 per cent with four or more. Of the people living in one of the blocks in Shenandoah 77.8 per cent and of those living in the two blocks canvassed in Gilberton 75 per cent were sleeping three or more persons in a room. In the tenement locally known as the incubator 53.5 per cent of the people slept with four or more persons in their sleeping rooms.

In addition to these conditions of overcrowding, the arrangements for disposal of sewage and garbage were poor, the subsidence of the land as coal was mined out from beneath it led to dangerous cracks and fissures and to serious damage to the houses, there was a lack of suitable play places for the children, and mortality rates were high.

The report suggests the opening such communities afford for social work of the most-needed kind.

In the anthracite district children suffer both from congestion of population and isolation, from inadequate educational and recreational opportunities, mortality rates are distressingly high, and at 13 and 14 years of age many of the children have taken their places as full-time wage earners. There is much that can be done to promote the well-being of children in even the most favored communities. This report shows clearly that in this coal-mining district there appears to be a peculiarly rewarding field for service.

Child Labor in Milwaukee, 1921–22.

THE following statistics on child labor permit administration in Milwaukee for the year ending June 30, 1922, were furnished by the Industrial Commission of Wisconsin:

New permits issued	4,352
Regular	2,383
Vacation	1,754
After school	215
Reissued permits	5,676
Regular and after school	4,770
Vacation	906
Reexaminations for health	4,155
Children with defects corrected	1,067

The percentage distribution of the 4,352 children's original permits, according to the age and sex of the children receiving such permits, was:

PER CENT OF TOTAL CHILDREN RECEIVING PERMITS, BY AGE AND SEX.

Age.	Boys.	Girls.
12 and 13 years	0.4	0.1
14 years	16.6	17.4
15 years	17.8	18.8
16 years	13.9	15.0
Total	48.7	51.3

The following table shows the per cent of boys and of girls entering seven specified industries. These industries employed about three-fifths of all the children securing permits.

PER CENT OF BOYS AND OF GIRLS EMPLOYED IN SPECIFIED INDUSTRIES.

Industry.	Boys.	Girls.
Candy manufacturing	3.7	16.6
Knitting	1.2	21.2
Metal working	23.3	3.8
Wood working	5.9	.8
Department stores	3.9	6.7
Messenger service	10.2	1.6
Office work	6.9	11.9

To obtain a regular labor permit the child secures a certificate that he or she has "passed successfully the eighth grade of a public school or in some school having a substantially equivalent course," or that he or she "has attended school for at least nine years." No record was made of the kind of schools attended by 53.6 per cent of the children, 33.3 per cent attended public schools, 12.8 per cent parochial schools, and 0.3 per cent private schools. The distribution, according to birthplace, was as follows:

	Per cent.
United States	91.3
Poland	1.6
Russia	1.4
Austria	2.7
Italy	.6
Germany	1.2
Other	1.2

As a rule, regular permits are not refused because of health defects, but the correction of such defects is made a condition of the continuance of permits.

Children obtaining regular permits are examined without charge by the Milwaukee local board of health. As shown above, there were 2,383 children granted regular permits. Many examinations disclose more than one impairment. In the following table, however, note is made only of the principal defect:

NUMBER AND PER CENT OF CHILDREN RECEIVING REGULAR PERMITS WHO HAD SPECIFIED HEALTH DEFECTS.

Condition as to defects.	Number.	Per cent.
All conditions of health	2,383	100.0
With no defects	785	32.9
With defects:		
Eye	189	7.9
Ear	3	.1
Teeth	1,161	48.8
Tonsils and adenoids	45	1.9
Under weight and malnutrition	158	6.6
Miscellaneous	42	1.8
Total with defects	1,598	67.1

In 1920–21 the Milwaukee office issued 8,920 original permits and in 1921–22 only 4,352. The percentage issued for the latter year upon each separate proof of age is given below in the preferential order in which such proof is required:

	Per cent.
Birth record	58.1
Baptismal record	33.5
Bible record	.3
Passport, Government document	1.6
Insurance policy	3.3
Doctor, parent, school	3.2

Data covering the five-year period ending June 30, 1922, show that 7,486 girls and 8,783 boys with permits and under 17 years of age held from one to 10 or more jobs each. The following table gives the percentage of girls and of boys holding each specified number of jobs:

PER CENT OF GIRLS AND OF BOYS HOLDING SPECIFIED NUMBER OF JOBS, IN FIVE-YEAR PERIOD ENDING JUNE 30, 1922.

Number of jobs.	Girls.	Boys.	Number of jobs.	Girls.	Boys.
1	32.8	29.1	8	1.8	2.6
2	21.3	20.4	9	1.0	2.2
3	15.6	13.0	10	.9	1.4
4	10.1	10.0	Over 10	1.3	4.2
5	7.6	7.8			
6	4.5	5.2		100.0	100.0
7	3.1	4.1			

The length of time jobs were held is indicated in the following table:

PER CENT OF JOBS OF EACH SPECIFIED LENGTH, HELD BY GIRLS AND BY BOYS, IN FIVE-YEAR PERIOD ENDING JUNE 30, 1922.

Duration of jobs.	Girls.	Boys.
Under 2 weeks	9.7	15.0
2 weeks and under 1 month	14.8	17.4
1 month and under 2 months	11.7	13.2
2 months and under 4 months	16.7	15.7
4 months and under 6 months	10.8	9.9
6 months and under 1 year	18.0	14.9
1 year and under 1 year 6 months	5.9	4.3
1 year 6 months and under 2 years	3.0	2.3
2 years and under 2 years 6 months	1.7	1.0
2 years 6 months and under 3 years	1.0	.6
No report	6.8	5.8
	100.0	100.0

EMPLOYMENT AND UNEMPLOYMENT.

Employment in Selected Industries in September, 1922.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in September, 1922, from 2,664 representative establishments in 42 manufacturing industries, covering 1,354,162 employees, who received $40,794,816 in wages.

Comparing the figures for September, 1922, with those for identical establishments for August, 1922, it appears that in 31 of the 42 industries there were increases in the number of employees, while in 11 there were decreases. The greatest increase, 15.8 per cent, appears in car building and repairing. Cotton finishing shows an increase of 11.3 per cent and woolen of 11 per cent. The greatest decreases appear in agricultural implements, 4.4 per cent; lumber, millwork, 3.7 per cent; and hosiery and knit goods, 3.2 per cent.

Twenty-nine of the 42 industries show increases in the total amounts of pay roll for September, 1922, as compared with August, 1922, and the remaining 13 show decreases. The greatest increase, 20.6 per cent, appears in car building and repairing. Cotton finishing and woolen show increases of 15.6 per cent and 11.4 per cent, respectively. The greatest decreases appear in agricultural implements, 9.1 per cent; automobiles, 5.7 per cent; and chewing and smoking tobacco, 5 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1922.

Industry.	Establishments reporting for August and September.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (−).	Amount of pay roll in—		Per cent of increase (+) or decrease (−).
			August, 1922.	September, 1922.		August, 1922.	September, 1922.	
Agricultural implements	37	1 week	14,510	13,870	−4.4	$356,641	$324,326	−9.1
Automobiles	97	do	161,356	162,111	+.5	5,213,465	4,916,096	−5.7
Automobile tires	33	do	30,311	29,920	−1.3	854,574	856,988	+.3
Boots and shoes	116	do	74,632	75,273	+.9	1,668,495	1,685,288	+1.0
Brick	137	do	12,460	12,262	−1.6	278,979	277,844	−.4
Carriages and wagons	16	do	1,758	1,723	−2.0	40,207	38,824	−3.4
Carpets	18	do	13,748	13,850	+.7	335,705	355,596	+5.9
Car building and repairing	67	½ month	46,763	54,148	+15.8	2,554,081	3,079,649	+20.6
Chemicals	37	1 week	11,729	12,054	+2.8	271,743	279,159	+2.7
Clothing, men's	102	do	37,132	37,143	(1)	1,014,467	997,694	−1.7
Clothing, women's	88	do	10,298	10,332	+.3	319,467	317,748	−.5
Cotton finishing	19	do	12,249	13,639	+11.3	244,837	283,070	+15.6
Cotton manufacturing	121	do	85,408	89,965	+5.3	1,276,728	1,389,565	+8.8
Electrical machinery, apparatus and supplies	63	do	52,975	54,163	+2.2	1,254,959	1,269,775	+1.2
Fertilizers	15	do	2,037	2,021	−.8	38,569	39,820	+3.2
Flour	31	do	5,051	5,476	+8.4	128,882	136,041	+5.6
Foundry and machine shops	157	do	67,267	74,043	+10.1	1,775,209	1,944,241	+9.5

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1922—Concluded.

Industry.	Establishments reporting for August and September.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (−).	Amount of pay roll in—		Per cent of increase (+) or decrease (−).
			August, 1922.	September, 1922.		August, 1922.	September, 1922.	
Furniture	76	1 week	16,308	16,504	+1.2	$369,169	$372,991	+1.0
Glass	56	do	15,652	15,762	+.7	325,793	330,789	+1.5
Hardware	15	do	12,566	12,676	+.9	260,561	274,663	+5.4
Hosiery and knit goods	100	do	43,278	41,881	−3.2	691,412	657,547	−4.9
Iron and steel	126	½ month	167,837	164,731	−1.9	8,235,114	8,858,008	+7.6
Leather	71	1 week	23,432	23,958	+2.2	524,964	531,233	+1.2
Lumber, millwork	72	do	10,998	10,595	−3.7	266,652	261,537	−1.9
Lumber, sawmills	150	do	50,895	50,008	−1.7	859,157	849,961	−1.1
Millinery and lace goods	17	do	2,638	2,768	+4.9	57,978	62,378	+7.6
Paper boxes	47	do	9,751	10,017	+2.7	196,093	205,463	+4.8
Paper and pulp	88	do	33,035	33,254	+.7	788,754	793,373	+.6
Petroleum	26	2 weeks	40,114	40,010	−.3	2,657,963	2,710,280	+2.0
Pianos	11	1 week	3,670	3,792	+3.3	98,966	101,290	+2.3
Pottery	13	do	5,404	5,465	+1.1	149,863	146,542	−2.2
Printing, book and job	77	do	14,543	14,926	+2.6	478,768	510,133	+6.6
Printing, newspapers	75	do	20,252	20,423	+.8	698,041	717,685	+2.8
Shipbuilding, steel	17	do	11,245	11,770	+4.7	291,455	300,033	+2.9
Shirts and collars	71	do	20,869	20,852	−.1	295,268	288,053	−2.4
Silk	109	2 weeks	33,550	33,558	(1)	1,246,481	1,231,458	−1.2
Slaughtering and meat packing	72	1 week	80,722	82,290	+1.9	1,733,724	1,837,290	+6.0
Stamped ware	10	do	4,213	4,374	+3.8	81,003	83,043	+2.5
Stoves	16	do	3,694	4,040	+9.4	91,717	97,032	+5.8
Tobacco, chewing and smoking	6	do	1,229	1,302	+5.9	21,183	20,121	−5.0
Tobacco, cigars and cigarettes	98	do	25,077	25,625	+2.2	439,807	455,573	+3.6
Woolen	91	do	37,482	41,588	+11.0	813,506	906,616	+11.4

[1] Increase of less than one-tenth of 1 per cent.

Comparative data covering identical establishments in 13 manufacturing industries for September, 1921, and September, 1922, appear in the following table. The number of employees increased in 1922 as compared with 1921 in 7 of the 13 industries and decreased in the 6 remaining. Car building and repairing and iron and steel each increased 25 per cent in 1922 as compared with 1921, while automobiles increased 24.3 per cent and leather 22.5 per cent. Decreases ranging from 16.7 per cent to 14.3 per cent appear in cotton manufacturing, silk, woolen, and men's clothing.

The amount paid in wages in September, 1922, was greater than that paid in September, 1921, in 5 of the 13 industries, and less in the remaining 8. Iron and steel shows the huge increase of 74 per cent. Car building and repairing increased 30.7 per cent and automobiles 27.5 per cent. The greatest decreases appear in men's clothing, silk, and cotton manufacturing, being 21.9, 20.7, and 18.5 per cent, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN SEPTEMBER, 1921 AND 1922.

Industry.	Establishments reporting for September both years.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (−).	Amount of pay roll in—		Per cent of increase (+) or decrease (−).
			September, 1921.	September, 1922.		September, 1921.	September, 1922.	
Automobiles	47	1 week	103,439	128,611	+24.3	$3,249,315	$4,143,552	+27.5
Boots and shoes	79	do	61,272	62,549	+2.1	1,429,224	1,422,102	−.5
Car building and repairing	53	½ month	34,499	43,125	+25.0	1,946,339	2,544,668	+30.7
Clothing, men's	45	1 week	31,116	26,666	−14.3	983,242	767,829	−21.9
Cotton finishing	17	do	13,336	12,790	−4.1	292,693	267,979	−8.4
Cotton manufacturing	55	do	59,536	49,616	−16.7	1,004,785	819,095	−18.5
Hosiery and knit goods	63	do	28,687	29,364	+2.4	472,672	463,806	−1.9
Iron and steel	109	½ month	107,758	134,707	+25.0	4,122,567	7,172,260	+74.0
Leather	32	1 week	12,641	15,487	+22.5	282,758	337,697	+19.4
Paper and pulp	54	do	22,810	25,639	+12.4	535,847	601,803	+12.3
Silk	43	2 weeks	16,395	13,834	−15.6	679,628	538,740	−20.7
Tobacco, cigars and cigarettes	53	1 week	16,946	16,520	−2.5	322,118	304,754	−5.4
Woolen	22	do	23,563	20,131	−14.6	505,801	468,553	−7.4

COMPARISON OF PER CAPITA EARNINGS IN SEPTEMBER, 1922, WITH THOSE IN AUGUST, 1922.

Industry.	Per cent of increase (+) or decrease (−) in September, 1922, as compared with August, 1922.	Industry.	Per cent of increase (+) or decrease (−) in September, 1922, as compared with August, 1922.
Iron and steel	+9.6	Paper and pulp	−0.1
Carpets	+5.1	Furniture	−.2
Hardware	+4.5	Foundry and machine shops	−.5
Fertilizers	+4.1	Women's clothing	−.9
Car building and repairing	+4.1	Leather	−1.0
Slaughtering and meat packing	+4.0	Pianos	−1.0
Cotton finishing	+3.8	Electrical machinery, apparatus and supplies	−1.1
Printing, book and job	+3.8	Silk	−1.2
Cotton manufacturing	+3.3	Stamped ware	−1.2
Millinery and lace goods	+2.5	Carriages and wagons	−1.5
Petroleum	+2.2	Men's clothing	−1.7
Paper boxes	+2.0	Shipbuilding, steel	−1.7
Printing, newspapers	+1.9	Hosiery and knit goods	−1.8
Lumber, millwork	+1.8	Shirts and collars	−2.4
Automobile tires	+1.6	Flour	−2.7
Tobacco, cigars, and cigarettes	+1.4	Pottery	−3.3
Bricks	+1.2	Stoves	−3.3
Glass	+.9	Agricultural implements	−4.9
Lumber, sawmills	+.7	Automobiles	−6.1
Woolen	+.5	Tobacco, chewing and smoking	−10.4
Boots and shoes	+.1		
Chemicals	[1]		

[1] Decrease of less than one-tenth of 1 per cent.

Wage changes made between August 15 and September 15, 1922, were reported by various establishments in 36 of the industries included in this report and are presented in the following tables:

WAGE CHANGES REPORTED AS OCCURRING BETWEEN AUGUST 15 AND SEPTEMBER 15, 1922.

Industry.	Number of establishments.	Per cent of increase (+) or decrease (−).	Per cent of total employees affected.
Agricultural implements	1	+13	6
	1	+9	50
	1	−10	100
Automobiles	1	+18	28
	1	+10	5
	1	+5	25
Automobile tires	1	+10	6
Boots and shoes	1	+5	48
Brick	1	+40	100
	1	+28	100
	1	+25 +12.5	23
	1	+14	96
	1	+13.5	100
	1	+12	16
	2	+10	100
	1	+10	75
	1	+8	100
	1	+6	100
	1	+5	8
	1	+1	7
	1	[1]	18
Carpets	1	+10	100
Car building and repairing	1	+20	11
	1	+20	8
	1	+15	2
	1	+10	75
	1	+10	25
	1	+8	59
	1	+8	12
Chemicals	1	+20	100
	2	+20	87
	1	+20	85
	1	+19	100
	1	+16	100
	1	+15.3	3
	1	+13.8	79
	1	+11.5	91
	1	+10.7	95
	1	+9.6	100
Clothing, women's	1	−6	65
Cotton finishing	1	+25	100
	1	+17	100
	1	+15	90
Cotton manufacturing	10	+25	100
	1	+25	98
	2	+25	95
	1	+21	100
	2	+20	100
	1	+11	99
	1	+10	100
Electrical machinery, apparatus, and supplies	1	+20	15
	1	+15	100
	1	+12.5	11
	1	+10	15
	1	+10	8
	1	+8	25
	1	+8	9
	1	+3.5	100
Fertilizers	1	+25	100
	1	+18	49
	1	+16.7	89
	1	+14.3	88
Fertilizers—Con.	1	+14.3	24
	1	+7	74
Flour	1	+16	9
	1	+10	100
Foundry and machine shop	2	+20	100
	1	+15	100
	1	+15	20
	1	+14.3	6
	1	+12	9
	1	+10.7	13
	3	+10	100
	1	+10	97
	1	+10	25
	1	+10	15
	1	+10	9
	1	+10	6
	2	+10	2
	1	+7	98
	1	+6–10	100
	1	+5	5
	1	+5	2
	1	+5	1
	1	+4.6	7
	1	+3–5	8
Furniture	1	+50	2
	1	+16.7	3
	1	+10	6
	1	+10	3
	1	+6	2
	1	[2]	9
Glass	1	+20	19
	1	+20	2
	2	+15–25	100
	1	+10	100
	1	+10	98
	1	+10	96
	1	+10	90
	1	+10	4
	1	+7.9	17
	1	+7.6	14
	1	+7.5	21
Hardware	1	+10	85
	1	+10	3
	1	+6.5	2
Hosiery and knit goods	1	+15–18	100
	1	+8.3	13
Iron and steel	29	+20	100
	3	+20	96
	1	+20	74
	1	+20	49
	3	+20	46
	3	+20	44
	1	+20	22
	1	+ [3] 20	[4]
	1	+10–20	100
	1	+4.5 +20	60 40
	1	+4.5 +20	40 60
	2	+4–20	100
	2	+19.8	100
	4	+19.8	80
	1	+19.6	90
	1	+19.2	100
	1	+18.7	84
	2	+17.5	100

[1] 5 cents per hour increase.
[2] 2 to 4 cents per hour increase.
[3] Approximately.
[4] Not reported.

WAGE CHANGES REPORTED AS OCCURRING BETWEEN AUGUST 15 AND SEPTEMBER 15, 1922—Concluded.

Industry.	Number of establishments.	Per cent of increase (+) or decrease (−).	Per cent of total employees affected.
Iron and steel—Con.	1	+16	100
	1	+15.5	100
	1	+15.4	67
		+10	33
	1	+15	100
	1	+15	65
	1	+15	67
		+4	33
	1	+14.9	100
	1	+14.6	100
	3	+14.3	100
	3	+10-14	100
	1	+13	33
	1	+[3] 12	100
	5	+10	100
	1	+10	54
	1	+10	50
	7	+10	[4]
	1	+5	40
Leather	1	+15	100
	1	+12.5	3
	4	+10	100
	1	[1]	25
Lumber, millwork	1	+20	4
	1	+16.7	23
	1	+10	22
	1	[5]	100
	1	[1]	75
Lumber, sawmills	1	+16	1
	1	+10	47
	1	+10	7
	1	[5]	96
Millinery and lace	1	+10	67
Paper boxes	1	+8	4
	1	+7	3
Paper and pulp	1	+10	[5]
	1	+10	100
	1	+10	35
	1	+8.1	34
	1	+5	91
Paper and pulp—Con.	1	−7.3	33
Printing, book and job	1	+11	2
	1	+7.6	5
	1	+6	12
	1	+5	1
Printing, newspaper	1	+8	12
	1	+8	3
	1	+6	13
	1	+[7] 3.5	5
	1	+1.7	6
Shipbuilding, steel	1	+20	83
Shirts and collars	1	+10	91
Silk	2	+10	100
	1	+10	74
Slaughtering and meat packing	1	+8	16
	1	+6.3	4
	1	[1]	8
Stamped ware	1	+10	7
	1	+8	13
Stoves	1	+20	3
	1	+14	2
	1	+10	1
Tobacco, cigars, and cigarettes	1	+10.5	69
	1	+10	100
	1	+10	89
	1	+10	84
	1	+10	70
	2	+10	8
	1	+10	[4]
	1	+7.5	91
	1	+7	66
	1	+7	30
	1	+6	100
	1	+5	69
Woolen	2	+25	100
	1	+10	4
	1	+6	2

[1] 5 cents per hour increase.
[3] Appropriately.
[4] Not reported.
[5] 25 cents per day increase.
[6] All wage earners.
[7] Retroactive to Aug. 1.

Government Construction Contracts.

CONTINUING the report on this subject in recent numbers of the MONTHLY LABOR REVIEW, the following table gives certain information relating to contracts entered into by the several departments or independent establishments of the Government as reported to the Bureau of Labor Statistics by these departments:

RECENT CONSTRUCTION CONTRACTS ENTERED INTO BY THE VARIOUS DEPARTMENTS OF THE UNITED STATES GOVERNMENT.

Department and contract number.	Contractor.		Contract.		Nature of contract.	Time limit.
	Name.	Address.	Date.	Amount.		
Treasury.						
.....	The Simes Co. (Inc).....	22-26 West Fifteenth Street, New York, N. Y.	[1] Sept. 28, 1922	$10,119	Installing lighting fixtures at United States Veterans' Hospital, Tuskegee, Ala.	Jan. 1, 1923.
.....	Charles E. Morrell, jr.....	Box 877, Greenville, S. C.....	[1] Sept. 22, 1922	6,600	Constructing elevator hoistway, post office, Worcester, Mass.	90 days.
.....	Otis Elevator Co.....	810 Eighteenth Street NW., Washington, D. C.	.....do [1].....	3,590	Installing electric freight elevator at post office, Worcester, Mass.	85 days.
.....	Louis Van Dorp & Son.....	Topeka, Kans.....	[1] Sept. 25, 1922	7,202	Constructing extension to building and driveway, post office and courthouse, Springfield, Ill.	90 days.
.....	R. E. McKee.....	1918 Texas Street, El Paso, Tex...	[1] Oct. 7, 1922	141,150	Constructing buildings at United States Veterans' Hospital, Fort Bayard, N. Mex.	5 months.
.....	D. Stewart & Co.....	Janesville, Wis.....	[1] Oct. 6, 1922	4,611	Constructing extension to workroom and driveway, post office, Wausau, Wis.	90 days.
.....	Geo. A. Whitmeyer & Sons.....	P. O. Box 657, Ogden, Utah.....	.....do [1].....	35,200	Constructing post office at Eureka, Utah.....	12 months.
.....	J. A. Baumann.....	905 West Sixty-third Street, Chicago, Ill.	[1] Sept. 15, 1922	4,976	Constructing mailing vestibule, and painting at post office, Champaign, Ill.	Jan. 2, 1923.
.....	Charles Grimmer & Son.....	230 East Thirty-seventh Street, New York, N. Y.	([2])	5,300	Repairing, cleaning, and painting, at United States Veterans' Hospital, Bronx, N. Y.	90 days.
War.						
.....	Willamette Iron & Steel Works..	Portland, Oreg.....	Sept. 1, 1922	49,600	Constructing and delivering 80 all-steel pontoon catamarans, Portland, Oreg.	130 days.
.....	M. Barde & Sons.....	.....do.....	Aug. 30, 1922	50,000	Removing wreck of steamer Welsh Prince, Columbia River, near Altoona, Wash.	360 days.
.....	Concord Construction Co.....	476 Seneca Avenue, Brooklyn, N. Y	June 1, 1922	11,000	Constructing three concrete and tile amunition storehouses, Fort Tilden, N. Y.	June 30, 1923.
.....	Roach, Stansell, Lowrance Bros. Co.	401 North Memphis Savings Bank Building, Memphis, Tenn.	Aug. 28, 1922	14,000	Enlargement of Riverton Levee, Mississippi River.	Dec. 31, 1922.
.....	P. Sanford Ross (Inc.).....	277 Washington Street, Jersey City, N. J.	Sept. 21, 1922	42,384	Dredging, Bridgeport Harbor, Conn.....	Indeterminate.
.....	John P. Randerson.....	51 State Street, Albany, N. Y.....	Sept. 11, 1922	13,500	Dredging, Shoal Harbor and Compton Creek, N. J.	Mar. 20, 1923.
.....	R. M. Picton & Co.....	Port Arthur, Tex.....	Sept. 25, 1922	250,633	Constructing bulkhead Southwest Pass, Mississippi River.	4 months.
.....	Fred E. Jones Dredging Co.....	Bank of Commerce Building, Norfolk, Va.	.....do.....	193,050	Dredging, and depositing of excavated material, Elizabeth River, Norfolk, Va.	10 months.
.....	Seely Dredging Co. (Inc.).....	30 Church Street, New York, N. Y.	Sept. 11, 1922	24,267	Removing rock at Stamford Harbor, Conn.....	8 months.
.....	Mosier & Summers (Inc.).....	Buffalo, N. Y.....	Sept. 12, 1922	152,984	Constructing buildings at Buffalo, N. Y.....	Dec. 31, 1923.
.....	U. S. Packard Dredging Co.....	1004 Turks Head Building, Providence, R. I.	Sept. 13, 1922	61,803	Dredging, Pawtucket River, R. I.....	Indeterminate.

.....	Bridgeport Dredge & Dock Co..	1024 Main Street, Bridgeport, Conn	Sept. 9, 1922	111,312	Dredging, Bronx River, N. Y.....	15 months.
.....	Johnson Iron Works (Inc.)....	Algiers, New Orleans, La.....	Aug. 31, 1922	25,850	One steel hull for United States dredge Upatoi, steel house, spud frames, etc.	5 months.
Navy.						
4546.....	Allen Pope.....	4722 15th Street NW., Washington, D. C.	....do	63,250	Installing distilling plant at the naval operating base, Key West, Fla.	150 days.
4575.....	Louis R. Smith.....	1576 Pensacola Street, Honolulu, Hawaii.	May 29, 1922	58,278	For roads and walks at naval air station, Pearl Harbor, Hawaii.	125 days.
4591.....	E. J. Lord.....	309 McCandless Building, Honolulu, Hawaii.	Sept. 9, 1922	749,160	Quay walls and pier, naval operating base, Pearl Harbor Hawaii.	450 days.
4636.....	Lange & Bergstrom.....	819 Timken Building, San Diego, Calif.	Sept. 2, 1922	482,500	Wards and service buildings at naval base, San Diego, Calif	300 days.
4647.....	E. G. Heflin.....	Fredericksburg, Va.....	Sept. 1, 1922	5,200	Retaining walls, marine flying station, Quantico, Va.	90 days.
4684.....	Tibbitts-Pacific Co.....	16 California Street, San Francisco, Calif.	Sept. 19, 1922	104,960	Circulating loop, central power plant, navy yard, Mare Island, Calif.	200 days.
Interior.						
.....	Thompson Mfg. Co.....	Denver, Colo.....	Sept. 11, 1922	2,750	Riveted steel slip-joint pipe, Klamath project...	Jan. 14, 1923.
.....	Walker Mfg. Co.....	.....do.....	Sept. 19, 1922	1,039	Radial gate hoists, Klamath, Orland, and North Platte projects.	Nov. 9, 1922.
Agriculture.						
Alabama:						
39.....	Stanley & Singer.....	Lafayette, Ala.....	Sept. 26, 1922	54,617	Bridges, Madison County.....	Not reported.
39.....	William Bros. Construction Co..	Roanoke, Va.....	.....do.....	124,056	Road, gravel, Madison County.....	Do.
116.....	J. W. Gwin.....	Birmingham, Ala.....	.....do.....	168,851	Road, gravel, Walker County.....	Do.
119.....	Stanley & Singer.....	Lafayette, Ala.....	.....do.....	179,179	Road, bitumen-macadam, Lawrence County....	Do.
Arkansas:						
100.....	Gregory & Wilson.....	Newport, Ark.....	Sept. 12, 1922	192,445	Road, bitumen-concrete, Mississippi County.....	Do.
39.....	W. C. Ham.....	Morrilton, Ark.....	Sept. 28, 1922	18,425	Bridge, Grant County.....	Do.
California:						
105.....	W. S. Mead.....	San Francisco, Calif.....	July 31, 1922	281,157	Road, graded and drained, Kern County.....	Do.
Colorado:						
226c.....	C. R. Canover & Bro.....	Denver, Colo.....	Sept. 26, 1922	32,997	Road, graded and drained, Weild County.....	Do.
Georgia:						
98.....	Davis Construction Co.....	Macon, Ga.....	Sept. 15, 1922	84,736	Road, plain concrete, Troup County.....	Do.
243.....	E. L. Lester.....	.....do.....	Oct. 3, 1922	12,227	Road, plain, concrete, Houston County	Do.
Illinois:						
26-22.....	H. K. Rhoades.....	Lincoln, Ill.....	Sept. 20, 1922	113,341	Road, reinforced concrete, Logan County.....	Do.
26-28.....	I. D. Lain.....	Bloomington, Ill.....	.....do.....	124,171	Road, reinforced concrete, Livingston County...	Do.
29-36.....	McMahon Construction Co.....	Rochester, Ind.....	.....do.....	103,411	Road, reinforced concrete, Iroquois County	Do.
29-37.....	.....do.....	.....do.....	.....do.....	137,002	.....do.....	Do.
29-38d.....	.....do.....	.....do.....	.....do.....	58,857	.....do.....	Do.
39-2.....	C. C. Vanderboom & Son.....	Pecatonica, Ill.....	.....do.....	110,942	Road, reinforced concrete, Carroll County.....	Do.
44-2.....	Baker, Ageiter & Thompson....	Indianapolis, Ind.....	.....do.....	136,923	Road, reinforced concrete, Christian County	Do.
30-15.....	Rieth-Riley Construction Co....	Goshen, Ind.....	.....do.....	69,680	Road, reinforced concrete, Kankakee County....	Do.
30-16.....	.....do.....	.....do.....	.....do.....	118,239	.....do.....	Do.
30-17.....	.....do.....	.....do.....	.....do.....	85,395	Road, reinforced concrete, Will County.....	Do.
32-11.....	Roy L. Williams.....	Wyatt, Mo.....	.....do.....	79,350	Road, reinforced concrete, Jefferson and Washington Counties.	Do.

[1] Date of acceptance of proposal.

[2] Not reported.

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RECENT CONSTRUCTION CONTRACTS ENTERED INTO BY THE VARIOUS DEPARTMENTS OF THE UNITED STATES GOVERNMENT—Continued.

Department and contract number.	Contractor.		Contract.		Nature of contract.	Time limit.
	Name.	Address.	Date.	Amount.		
Agriculture—Concluded.						
Illinois—Con.						
32-12	Roy L. Williams	Wyatt, Mo	Sept. 20, 1922	66,147	Road, reinforced concrete, Jefferson County	Not reported.
32-13	do	do	do	108,307	do	Do.
33-42	Sutton & Moore	Canton, Ill	do	120,904	Road, reinforced concrete, Fulton County	Do.
36-66	Indiana Road Paving Co	Rochester, Ind	do	108,555	Road, reinforced concrete, Woodford, La Salle, and Marshall Counties.	Do.
36-67	do	do	do	110,388	Road, reinforced concrete, Marshall and La Salle Counties.	Do.
38-45	Russell-Condon Construction Co.	Omaha, Nebr	do	122,105	Road, reinforced concrete, Schuyler County	Do.
26-20A	J. A. McGanghey	1319 Columbia Avenue, Chicago, Ill	do	5,281	Road, reinforced concrete, Logan County	Do.
33-43A	Beris & Olson	St. Joseph, Mo	do	24,142	Road, gravel and dirt, Fulton County	Do.
38-44A	A. O. McCoy	Mount Sterling, Ill	do	27,539	Bridge, Schuyler County	Do.
26-20B	George C. Fairdo	Milford, Ill	do	14,416	Bridge, Logan County	Do.
25-20C	Illinois Steel Bridge Co	Jacksonville, Ill	do	8,149	do	Do.
30-17B	Fred Lorenz	Oak Glen, Ill	do	9,100	Bridge, Will County	Do.
33-43B	Dan Alford	Cuba, Ill	do	21,391	Bridge, Fulton County	Do.
33-43C	Illinois Steel Bridge Co	Jacksonville, Ill	do	4,657	do	Do.
26-21	H. K. Rhoades	Lincoln, Ill	do	99,996	Road, reinforced concrete, Logan County	Do.
Iowa:						
54	Central Engineering Co	Davenport, Iowa	Sept. 8, 1922	155,904	Road, plain concrete, Scott County	Do.
55AB	do	do	do	228,279	do	Do.
55C	do	do	do	144,486	do	Do.
185	do	do	do	167,483	do	Do.
186	Jesmer Bros	do	Sept. 22, 1922	11,390	Road, gravel and dirt, Clinton County	Do.
Kansas:						
35FGH	Hyde Construction Co	Enid, Okla	Sept. 27, 1922	249,669	Road, reinforced concrete, Sumner County	Do.
35JKLM	Stewart & Ritchie	Wichita, Kans	do	479,142	do	Do.
90D	Missouri Valley Bridge Co	Leavenworth, Kans	Aug. 29, 1922	2,087	Bridge, Butler County	Do.
90D	do	do	do	7,930	do	Do.
90D	N. E. Marsh	Topeka, Kans	do	21,219	do	Do.
Kentucky:						
57-39	A. J. Wardrep	Knoxville, Tenn	Sept. 27, 1922	325,852	Road, reinforced concrete, Knox and Bell Counties	Do.
68	Hatfield Construction Co	Huntington, W. Va	do	111,525	Road, graded and drained, Carter County	Do.
71	Codell-Byers	Winchester, Ky	do	80,491	Road, graded and drained, Powell County	Do.
72	Vermillion Bros	Barlowville, Ky	do	81,686	Road, graded and drained, Wolfe County	Do.
73	Alexander Bros	Cadiz, Ky	do	36,062	Road, gravel, Trigg County	Do.
74	Hayer, Duncan & Priest	Henderson, Ky	do	21,847	Road, graded and drained, Daviess County	Do.
79	R. B. Tyler Co	Louisville, Ky	do	295,350	Road, crushed stone, Harding County	Do.

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81	Codell-Byers	Winchester, Ky	do	87,060	Road, graded and drained, Perry County	Do.
82	Billiter & Oliver Bros	Covington, Ky	do	158,462	Road, reinforced concrete, Boone County	Do.
Louisiana:						
111ABC	Grant Parish Construction Co	Colfax, La	May 9, 1922	163,056	Road, bitumen-concrete, Grant County	Do.
Maine:						
54	Amos D. Bridger Sons (Inc.)	Hazardville, Conn	Aug. 25, 1922	18,105	Road, bitumen-macadam, Knox County	Do.
55	John Arborio	New Haven, Conn	do	52,557	Road, gravel, Franklin-Kennebec Counties	Do.
56	Arborio Road Construction Co	Hartford, Conn	do	43,785	Road, gravel, Franklin County	Do.
58	do	do	do	56,376	Road, bitumen-macadam, Cumberland County	Do.
Minnesota:						
299	Minneapolis Bridge Co	Minneapolis, Minn	Sept. 15, 1922	26,578	Bridge, Swift County	Do.
299	Kraemer & Hog	do	do	40,339	Road, gravel and dirt, Swift County	Do.
Missouri:						
86A	M. E. Gillioz	Monett, Mo	Sept. 22, 1922	30,648	Road, gravel, Hickory County	Do.
99	American Paving Co	Omaha, Nebr	Sept. 25, 1922	315,195	Road, plain concrete, Clay County	Do.
Montana:						
10	B. P. Melchert	Lewistown, Mont	do	12,014	Road, gravel, Cascade County	Do.
60B	Albert Carlson	Columbia, Mont	do	24,517	Road, gravel, Park County	Do.
Nevada:						
22	King & Malone	Reno, Nev	Sept. 27, 1922	39,321	Road, gravel, Eureka County	Do.
36	Richmondite Paving Co	do	do	100,849	Road, bitumen-macadam, Washoe County	Do.
59	Strahan & Bishop	Lovelock, Nev	Sept. 13, 1922	28,751	Road, plain concrete, Lyon County	Do.
New Mexico:						
72	Peter, Stanley & Gunther	Omaha, Nebr	Sept. 28, 1922	72,769	Road, crushed stone, San Miguel County	Do.
New Hampshire:						
147	J. E. Normandeau	Concord, N. H	Sept. 10, 1922	10,376	Bridge, Merrimack County	Do.
New York:						
178	Richard Hopkins Construction Co.	Albany, N. Y	Aug. 29, 1922	193,974	Road, bitumen-macadam, Franklin County	Do.
214	Floyd H. Wells	Savannah, N. Y	do	231,676	Road, plain concrete, Lewis County	Do.
200	Eastover Construction Co	Herkimer, N. Y	do	206,997	Road, plain concrete, Saratoga County	Do.
199	Masterson Construction Co	New York, N. Y	do	296,915	Road, bitumen-macadam, Washington County	Do.
99B	Miller Construction Co	Punxsutawney, Pa	do	86,541	Road, plain concrete, Wyoming County	Do.
220	Ross Brothers & Griffith	Copenhagen, N. Y	do	64,235	Road, reinforced concrete, Madison County	Do.
227	J. A. LaPorte	Albany, N. Y	Sept. 21, 1922	247,832	Road, bitumen-macadam, Franklin County	Do.
6	Cornelius Vanderbilt General Construction Co.	Staten Island, N. Y	do	162,644	Road, reinforced concrete, Rockland County	Do.
233	Ludke Bros	Auburn, N. Y	do	19,435	Road, reinforced concrete, Cortland County	Do.
231	F. W. & J. J. Crouch	Rochester, N. Y	do	131,452	Road, reinforced concrete, Monroe County	Do.
213	H. C. Schroeder	do	do	73,852	Road, reinforced concrete, Ontario County	Do.
North Dakota:						
162	William Collins	Lakota, N. Dak	do	23,395	Road, gravel and dirt, Cavalier County	Do.
162	Fargo Bridge & Iron Co	Fargo, N. Dak	do	5,544	Bridge, Cavalier County	Do.
Ohio:						
108L	S. A. Palmer	Marietta, Ohio	Aug. 11, 1922	75,495	Road, reinforced concrete, Meigs County	Do.
269	J. P. Muman	Cambridge, Ohio	July 14, 1922	133,199	Road, brick, Noble County	Do.
274	Gaty Construction Co	Columbus, Ohio	Aug. 11, 1922	148,432	Road, reinforced concrete, Washington County	Do.
231	Marrifield & Uncapher	Marion, Ohio	do	67,066	Road, bitumen-macadam, Morrow County	Do.
99	Brown & Allen	Ellsworth, Ohio	Aug. 22, 1922	109,090	Road, brick, Jefferson County	Do.

RECENT CONSTRUCTION CONTRACTS ENTERED INTO BY THE VARIOUS DEPARTMENTS OF THE UNITED STATES GOVERNMENT—Concluded.

Department and contract number.	Contractor.		Contract.		Nature of contract.	Time limit.
	Name.	Address.	Date.	Amount.		
Agriculture—Concluded.						
Ohio—Con.						
263	Stein & Geisel	Niles, Ohio	July 14, 1922	$46,892	Bridge, Wayne County	Not reported.
281	Hill & Hill	Elyria, Ohio	Sept. 1, 1922	52,477	Road, brick, Huron County	Do.
282	P. H. Agerter	Lima, Ohio	....do....	54,807	Road, brick, Ashland County	Do.
283	G. W. McAlpesto	Caldwell, Ohio	....do....	36,423	Road, plain concrete, Noble County	Do.
Oregon:						
54	James Logan	Grants Pass, Oreg	Sept. 22, 1922	50,547	Road, gravel and dirt, Josephine County	Do.
South Carolina:						
186	Austin Brothers Bridge Co	Atlanta, Ga	Sept. 19, 1922	18,619	Bridge, York County	Do.
183	J. L. Carroll	Orangeburg, S. C	Oct. 4, 1922	26,643	Road, graded and drained, Greenville County	Do.
South Dakota:						
112	H. C. Hanson	Aberdeen, S. Dak	Sept. 26, 1922	21,597	Road, graded and drained, Brown County	Do.
107	M. F. Morrissey	Shadron, Nebr	Sept. 12, 1922	48,042	Road, gravel and dirt, Todd County	Do.
102	Canton Block & Tile Construction Co.	Canton, S. Dak	....do....	22,983	Road, gravel and dirt, Lincoln County	Do.
102	Diamond Engineering and Construction Co.	Grand Island, Nebr	....do....	2,211	Bridge, Lincoln County	Do.
104	....do....	....do....	....do....	4,473	Bridge, Douglas County	Do.
108B	....do....	....do....	....do....	2,497	Bridge, Charles Mix County	Do.
98	....do....	....do....	....do....	6,918	Bridge, Lincoln County	Do.
107	Great Northern Bridge Co	Minneapolis, Minn	....do....	4,291	Bridge, Todd County.	Do.
50C	Pioneer Bridge Co	Mitchell, S. Dak	....do....	37,398	Road, gravel and dirt, Sanborn County	Do.
104	H. Pickus Construction Co	(1)	....do....	24,437	Road, gravel and dirt, Douglas County	Do.
98	Canton Block Tile Co	Canton, S. Dak	....do....	24,727	Road, gravel and dirt, Lincoln County	Do.
Tennessee:						
65B	Warren Co	Nashville, Tenn	....do....	3,561	Bridge, Warren County	Do.
65B	....do....	....do....	....do....	127,098	Road, bitumen-macadam, Warren County	Do.
16	Nashville Bridge Co	....do....	....do....	88,118	Bridge, Montgomery County	Do.
Texas:						
293	F. P. Holt	Austin, Tex	Sept. 14, 1922	76,096	Road, gravel and dirt, Mason County	Do.
194	Womack Construction Co	Sherman, Tex	Sept. 15, 1922	135,857	Road, gravel, Coleman County	Do.
267	James Construction Co	Dallas, Tex	Sept. 22, 1922	4,540	Road, brick, Runnels County	Do.
277A	J. Z. Moore & Sons	Lufkin, Tex	Sept. 19, 1922	170,317	Road, gravel, Angelina County	Do.
Utah:						
40	Henser, Packard Co	Salt Lake City, Utah	Sept. 22, 1922	6,038	Road, plain concrete, Davis County	Do.

Virginia:						
168	L. R. Colbert	Fredericksburg, Va.	Sept. 19, 1922	135,190	Road, bitumen-macadam, Fairfax County	Do.
121	Pittsburgh, Des Moines Steel Co.	Pittsburgh, Pa	do	7,301	Bridge, Southampton County	Do.
125B	L. R. Colbert	Fredericksburg, Va.	do	8,110	Road, bitumen-macadam, Loudoun County	Do.
32	do	do	do	15,253	Road, bitumen-macadam, Fairfax County	Do.
202	do	do	do	199,590	Road, plain concrete, Louisa County	Do.
160	Allport Construction Co.	Richmond, Va	do	8,763	Bridge, Nansemond County	Do.
125A	L. R. Colbert	Fredericksburg, Va.	do	107,192	Road, bitumen-macadam, Loudoun County	Do.
173	C. M. Henley	Richmond, Va	do	170,731	Road, plain concrete, Chesterfield County	Do.
160	Roger-Ferguson Co	High Point, N. C.	do	136,781	Road, plain concrete, Nansemond County	Do.
Washington:						
96	Collucio & Erkson	Seattle, Wash	Sept. 11, 1922	132,603	Road, gravel, King County	Do.
102	B. N. Bartlett	Jefferson, Oreg	do	86,101	Road, gravel and dirt, Pierce County	Do.
103	Anderson & Nelson	Tonusket, Wash	do	68,748	Road, gravel, Okanogan County	Do.
Wyoming:						
127	J. F. Turpin	Wheatland, Wyo.	Sept. 19, 1922	22,964	Bridge, Fremont County	Do.
19R	Levy Construction Co.	Denver, Colo.	do	492,250	Road, bitumen-concrete, Natrona County	Do.
127	Kane & Peck	Riverton, Wyo.	do	35,652	Road, gravel and dirt, Fremont County	Do.
25A	Midland Bridge Co.	Kansas City, Mo.	do	11,399	Bridge, Crook County	Do.
122	Bagley Bros.	Wheatland, Wyo.	do	42,120	Road, selected material, Albany County	Do.
123	do	do	do	23,240	do	Do.
134	do	do	do	17,416	Road, selected material, Laramie County	Do.

Industrial Unemployment: A Study of Its Extent and Causes.

THE United States Bureau of Labor Statistics has just issued a statistical study of the extent and causes of industrial unemployment (Bulletin No. 310). The data contained in the report are necessarily incomplete, as reliable unemployment statistics for a long enough time to be significant cover a very limited portion of the country, but an effort has been made to coordinate and interpret the available information and to present it in graphic form for greater quickness and ease of understanding. The discussion relates to the manufacturing and mechanical industries, including the building and hand trades, and to transportation and mining, the fields in which unemployment is, as a rule, most acute, and deals mainly with the extent of unemployment and some of the more permanent factors involved, regarding which information is necessary before adequate remedies and preventive measures can be devised.

The principal conclusions arrived at from a comparison of the statistical data set forth are as follows:

1. Industrial wage earners in those States for which data are available lose about 10 per cent of their working time through unemployment, mainly from lack of work and exclusive of idleness due to sickness and labor disputes. On this basis, an average of at least a million and a half industrial wage earners in the United States are constantly unemployed, taking poor and prosperous years together.
2. Two and a half per cent of the working time of industrial wage earners appears to be lost from sickness and other disabilities, and an additional 1 per cent from labor disputes, or an average per worker from these two causes of about 10 days per year.
3. From such data as are available, it appears that partial unemployment, due to part-time operation of plants, shutdowns, time lost on account of waiting, and related causes, is responsible for a loss of about 10 per cent more of the working time of industrial wage earners. There may be some overlapping here with time lost from sickness and labor disputes.
4. There is a fairly regular seasonal decrease in employment in the manufacturing industries as a whole in midsummer and again in midwinter.
5. The unemployment due to depressional factors was more pronounced in 1920-21 than in 1907-8 or 1914-15.

The need for fuller and better data regarding employment and unemployment, collected and published regularly by a responsible statistical body of each State and of the United States, is stressed.

Recent Employment Statistics.

California.

THE results of an employment survey of the manufacturing industries of California as of August 31, 1922, conducted by the bureau of labor statistics of that State in cooperation with the United States Employment Service, are given in Employment Bulletin No. 6 of the California bureau. Over 800 questionnaires were distributed to large manufacturing establishments, about 65 per cent of which had made returns at the time the statistics were compiled for the bulletin. Reports were used only for the 500 firms which had also made returns for August, 1921, and June, 1922.

The number of persons employed by these firms in August, 1922, was 105,976 as compared with 94,222 in June, 1922, and 94,361 in August, 1921. The industry showing the largest number of employees in August, 1922, was canning, drying, and preserving, the number of

employees being 20,386 as compared with 13,593 in August, 1921, an increase of 50 per cent. The next largest number of employees was in sawmills and logging camps, 15,114 as compared with 11,218 in August, 1921, an increase of 34.7 per cent. The industry showing the greatest percentage of increase in the number of employees over August, 1921, was the manufacture of wagons and automobiles, including bodies, in which the number increased from 1,188 to 2,658, or 123.7 per cent. The largest decrease in any industry was in shipbuilding, including naval repairs, the number of employees falling from 14,113 in August, 1921, to 6,091 in August, 1922, or 56.8 per cent.

Minnesota.[1]

THE report for August, 1922, of the employment division of the Industrial Commission of Minnesota shows a greater demand for labor of all kinds, except office help. A scarcity of workers, especially of the unskilled, is becoming apparent. It has been almost impossible to meet the demand for woodsmen, for whom daily orders are being received. It is thought that there may be a relief from this shortage when the harvest hands of the Northwest return to the cities. All the free employment offices supervised by the State industrial commission reported an increase in activities, and according to present prospects, it is believed there will be little, if any, unemployment in the vicinity for some time to come.

New York.

The State Labor Market.

THE July, 1922, number of the Industrial Bulletin, issued monthly by the industrial commissioner of New York, announces that the various employment offices throughout the State report a general scarcity of skilled labor, an absorption of practically all common labor, and a demand for good farm help which exceeds the supply in all the rural sections of the State. There is a small surplus, however, of common laborers in some localities where such laborers are not willing to do agricultural work.

The reports show that the problem of the floating element, "traveling help," which was so serious a year ago, is eliminated. Employment offices are finding it difficult to induce men to leave their home localities to take jobs in other parts of the State.

If the report that 20 per cent of the striking textile workers of Massachusetts have gone to other States is correct, New York seems to have absorbed its quota.

Certain contracts for highways and other public work were entered into some time previous on a basis of 30 to 35 cents an hour for common labor. The present hourly rates for such labor range from 40 to 55 cents, and it is not easy for public-work contractors to obtain help of this kind at the former rates.

The fact that 90 per cent of the 1,500 workers placed by one of the department's offices in the week ending July 29, 1922, were put at agricultural labor is an indication of the large demand for help in that field.

The department records show that the supply of domestic servants is only 44 per cent of the demand.

[1] Letter from the Minnesota Industrial Commission under date of Oct. 4, 1922.

Part-Time Employment in June, 1922.[1]

A special inquiry was made by the Industrial Commission of New York in June, 1922, to ascertain whether the amount of overtime and part-time work had increased or decreased since a similar inquiry in December, 1921.[2] The 1922 report covers 1,395 firms with over 360,000 employees. A small percentage of employees who lost time on account of illness or other personal reasons was included among the part-time workers. The findings of the investigation indicate that there was a slight increase in full-time and overtime work in manufacturing in June, 1922, compared with December, 1921, and that there was less part time at the later period. Ten per cent of the employees lost two or more days in the week covered in December, 1921; in the week selected in June, 1922, the number was reduced to 8 per cent.

The metals and machinery industries, stone, clay, and glass products, and woodworking industries, still showed the largest amount of part time employment, in the last-mentioned group approximately 25 per cent of the workers being employed less than the full week in June.

The only two large groups of industries that cut down their working time were textiles and clothing, and these reductions were partly seasonal. Part-time was more marked among women than among men. The number of women on part time was especially noticeable in silk and knit goods establishments, in the latter many of the workers being employed four days or less a week.

In both inquiries the light and power plants showed the least amount of part-time work. In the fur, leather, and rubber goods group 84.3 per cent of the employees were on full time in June, 1922, compared with 62.8 per cent in December, 1921.

The following table summarizes the report on working time in 1,395 establishments in the State of New York for the week in June covered by the 1922 inquiry:

TIME WORKED BY EMPLOYEES OF REPRESENTATIVE FACTORIES IN NEW YORK STATE DURING ONE WEEK OF JUNE, 1922.

Industry.	Number of employees working.						Per cent of employees at work, who worked—				
	Total	Overtime.	Full time.	5 days.	4 days.	3 days or under.	Overtime.	Full time.	5 days.	4 days.	3 days or under.
Stone, clay, and glass products..	11,116	1,533	6,651	1,866	532	534	13.8	59.8	16.8	4.8	4.8
Metals, machinery, and conveyances	120,646	14,277	76,976	19,298	5,458	4,637	11.8	63.8	16.0	4.5	3.9
Wood manufactures	19,779	1,575	13,375	3,368	590	871	8.0	67.6	17.0	3.0	4.4
Furs, leather, and rubber goods..	31,344	861	26,425	2,148	1,099	811	2.7	84.3	6.9	3.5	2.6
Chemicals, oils, paints, etc	14,719	2,363	9,806	1,799	404	347	16.1	66.6	12.2	2.7	2.4
Paper	6,639	2,555	2,662	841	260	321	38.5	40.1	12.7	3.9	4.8
Printing and paper goods	23,584	2,305	18,164	1,756	532	827	9.8	77.0	7.4	2.3	3.5
Textiles	50,891	3,355	36,486	6,191	3,384	1,475	6.6	71.7	12.2	6.6	2.9
Clothing, millinery, laundering, etc	47,432	2,351	35,224	5,682	2,220	1,955	4.9	74.3	12.0	4.7	4.1
Food, beverages, and tobacco	31,948	2,709	22,387	3,902	1,468	1,482	8.5	70.1	12.2	4.6	4.6
Water, light, and power	2,191	157	1,914	76	15	29	7.2	87.4	3.4	.7	1.3
Total	360,289	34,041	250,070	46,927	15,962	13,289	9.5	69.4	13.0	4.4	3.7

[1] New York. Industrial Commissioner. The Industrial Bulletin, Albany, August, 1922, pp. 200–202.
[2] For digest of December, 1921, inquiry, see MONTHLY LABOR REVIEW, May, 1922, pp. 151, 152.

Pennsylvania.[1]

THE industrial activities of Pennsylvania do not seem to have been disrupted to any appreciable extent by the coal and rail strikes, according to the August 15 report of the State employment bureau. Steel mills, textile plants, public utilities, and machine shops have been operating on an almost normal basis.

Throughout the State there has been a continued demand for both skilled and semiskilled mechanics. Labor shortages were also evident in building, lumbering, farming, and domestic service. Industrial disturbances seem not to have interrupted building activities except in Philadelphia. Full production in the anthracite mines was not expected until October or November. The workers involuntarily idle on September 15 numbered 74,493—about 25,000 less than at the corresponding period of the preceding month.

A steady rise in wages, the report states, has been the outcome of the growing acuteness of the common labor shortage. It is thought that a considerable percentage of the 115,000 miners who did not go back to the mines at the time the strike was ended in the anthracite and bituminous mines have taken jobs in the steel plants and other places and do not wish to return to the mines. The following table shows the placement work done by the State bureau of employment in the first 6 months of 1922:

CLASSIFIED SUMMARY OF ACTIVITIES OF PENNSYLVANIA BUREAU OF EMPLOYMENT FOR THE FIRST SIX MONTHS OF 1922.

Industry and sex.	Persons applying for positions.	Persons asked for by employers.	Persons sent to positions.	Persons receiving positions.
Men.				
Agriculture	5,506	2,159	1,845	1,608
Building trades	10,548	5,084	5,187	4,466
Machinery and metals	15,775	6,604	6,939	5,626
Clerical	3,543	1,041	1,080	941
Hotel and institutions	7,279	1,887	2,206	1,783
Mine and quarry	3,351	2,002	1,383	1,264
Transportation	4,031	706	811	639
Sales	1,995	2,026	1,118	992
Common labor	91,026	20,815	20,949	19,043
Miscellaneous	12,202	3,572	3,901	3,434
Total	155,256	45,896	45,419	39,796
Women.				
Agriculture and foods	227	268	213	192
Clerical	4,632	790	854	656
Clothing and textiles	561	281	341	185
Day workers	7,802	3,148	3,183	3,130
Domestic service	4,194	3,871	2,564	2,105
Hotel and institutions	4,429	1,907	1,578	1,356
Machine and factory	923	672	434	366
Professional and trained	146	51	54	36
Sales	827	220	188	163
Miscellaneous	1,248	457	377	362
Total	24,989	11,665	9,786	8,551
Grand total	180,245	57,561	55,205	48,347

[1] Pennsylvania. Department of Labor and Industry. Labor and Industry, Harrisburg, September, 1922, pp. 20, 21.

Wisconsin.

FLUCTUATIONS in employment in Wisconsin from July to August, 1922, and also from January to August, 1922, are shown in the August, 1922, issue of the Wisconsin Labor Market, published by the industrial commission of that State. The total number of placements made by the Wisconsin employment offices in August, 1922 (5 weeks), was 13,648 as compared with 9,608 made in July, 1922 (4 weeks), and 6,013 in August, 1921 (5 weeks). In most of the industries of the State the number of employees increased from January to August, 1922, large percentages of increase being shown in the following industries: Building construction, 170.5; iron mining, 109.5; automobiles, 67.4; foods, 56.4; and agriculture, 47.8. The largest decreases during this period were in the railroad repair shops (64.5 per cent) and in the logging industry (34.8 per cent). The report states, however, that there is a strong demand for workers in lumber camps, and it is predicted that with the coming winter some laborers now employed in other lines, such as railroad, highway, and building construction, will shift to logging. The largest gain in volume of employment in August as compared with July was in the following manufacturing industries: Stone finishing, 64.3 per cent; textile products other than clothing and knit goods, 14.7 per cent; flour milling, 14.4 per cent; and boots and shoes, 13.5 per cent.

WORKING-CLASS EDUCATION.

International Conference on Working-Class Education.[1]

ON AUGUST 15 to 18, 1922, an international conference on working-class education convened at Brussels. There were in attendance 39 delegates, representing 11 countries and 23 institutions. This was the second conference of such a character, the first one having assembled also in Brussels in December, 1913. A resolution was passed in favor of appealing to the International Trade Union Federation to consider the establishment of a fund for an exchange of scholarships. The provisions of another resolution placed the maintenance of international relations along educational lines in charge of the Belgian working-class movement, and in addition contemplated the possibility of creating a permanent central bureau for the international movement for working-class education.

Educational Activities for Workers in Finland.

INFORMATION from an official Finnish labor source [2] indicates that the question of workers' education is one of growing interest and importance to Finland's wage-earning population regardless of class or political alignment.

The first workers' institute was established in 1899, but progress in this direction was slow, the number of institutes reaching only six in 1911. Since 1917 the general educational awakening has resulted in renewed activity with the result that according to the latest available figures there was a total of 35 educational organizations attended by the middle and laboring classes. Eighteen of these functioned under the name of workers' institutes, while 17 were known as citizens' institutes, free institutes, or evening courses. And these means of instruction were not confined to the towns and cities, but were founded in some of the densely populated rural districts as well.

Twenty-seven of the institutes are operated by the communes, six by guaranty or other associations, and two by industrial corporations. The position of the workers' institutes is strengthened by the fact that the State pays one-half the actual expenditure entailed in their administration. In some institutes there are no membership dues, in others the dues are very small, none exceeding 10 marks ($1.93, par). Enrollment varies greatly in the different districts according to prevailing conditions. The Finnish Workers' Institute of Helsingfors, numbering 5,000 members, has the largest enroll-

[1] Le Mouvement Syndical Belge, Bruxelles, Sept. 2, 1922, p. 155.
[2] Finland. Social Ministeriet och Socialstyrelsen. Social Tidskrift, Helsingfors, No. 5, 1922, pp. 347–355.

ment. Kuopio Citizens' Institute and Helsingfors Swedish Workers' Institute are next in size with an enrollment of over 1,000 members each. In some of the newer and smaller institutes the enrollment is below 100.

The yearly sessions average 25 to 26 weeks. Sixteen of the institutions have full-time teachers. History and economics are the most popular subjects, though science, poetry, art, national finance, philosophy, etc., have important places in the curricula. The subject matter must be presented in an unbiased manner though not necessarily in a colorless one. Free expression of opinion is encouraged so long as it does not lean toward political agitation.

The workers on the whole regard the institutes favorably even though the leaders are thus far largely drawn from the middle classes. In Kuopio the communists attend the Citizens' Institute and in every way support its activities. In the Helsingfors (Finnish language) Workers' Institute about one-half are organized workers. The Workers' Educational Association of Finland, modeled after the Education Association of Sweden, was founded in 1919 for the purpose of spreading social information among workers. Its membership in 1921 was given as 306,210 persons, but allowance must be made for the fact that the central organization is composed of various branch organizations, and that membership is not confined to one branch.

INDUSTRIAL HYGIENE AND SAFETY.

Progress in the Hygiene of the Printing Trade up to 1902.

By Frederick L. Hoffman.

THE printing trades during recent years have passed through such a far-reaching technical evolution that earlier observations regarding the health of printers and allied occupations are of very limited value at the present time. Many excellent accounts of early printing processes have been published, particularly the article on printing in Knight's Cyclopedia of the Industry of All Nations (London, 1851); the really admirable descriptive account of printing processes fully illustrated in the Cyclopædia of Useful Arts, edited by Charles Tomlinson (London, 1852); and the equally suggestive discussion of printing machines in Ure's Dictionary of Arts, Manufactures and Mines (New York, 1868). But these accounts represent a contrast rather than a comparison of modern processes, which to a much larger extent are mechanical and certainly carried on under decidedly better hygienic conditions.

It may, however, serve a useful purpose to recall a few of the earlier conclusions of writers in a position to observe printing under the much more primitive conditions of a bygone day. Possibly the most helpful of these is the brief reference to this occupation in The Effects of Arts, Trades, and Professions on Health and Longevity, by C. Turner Thackrah (London, 1832). Thackrah's conclusions are as follows:

> Letter-press printers are kept in a confined atmosphere, and, with the exception of the pressmen, are generally stationary. Compositors are often subjected to injury from the types. These, a compound of lead and antimony, emit, when heated, a fume which affects respiration, and are said also to produce partial palsy of the hands. Among the printers, however, of whom we have inquired, care is generally taken to avoid composing till the types are cold, and thus no injury is sustained. The constant application of the eyes to minute objects gradually enfeebles these organs. The standing posture long maintained here, as well as in other occupations, tends to injure the digestive organs. Some printers complain of disorder of the stomach and head: and few appear to enjoy full health. Consumption is frequent, arising, however, rather I conceive, from the reduction of the general health by confinement, than from direct injury to the respiratory organs. We can scarcely find or hear of any compositor above the age of 50. In many towns printers are intemperate. (Pp. 42, 43.)

Thackrah, without the aid of vital statistics, had arrived at the same conclusions as revealed by subsequent investigations, that the two principal afflictions of men in the printing trade are respiratory diseases and industrial poisoning. But he emphasizes the general effect of an unfavorable environment, and last, not least, of intemperance. He also drew attention to the probable development of eye strain, the seriousness of which, of course, was not realized at that time as clearly as it is to-day.

Hirt, in 1871, was one of the first to discuss the subject in the light of a fairly trustworthy statistical basis, emphasizing on this

and many other occasions the supreme importance of dust as a predisposing factor in lung diseases. He found that while among men in general industrial occupations 10.12 per cent suffered from phthisis, among printers the percentage was 21.6. Hirt recognized the much more serious exposure to lead poisoning on the part of those having to deal with the melting of type, the disease being much less common among printers proper. All of the earlier observations fall short of the required occupational differentiation. Considering collectively those least exposed, forming the majority, with those most exposed, forming the minority, the resulting average would, of course, represent a much misleading result if applied to either group separately.

One of the earliest modern discussions on the hygiene of the printing trades occurs in the classical treatise on The Hygiene Diseases and Mortality of Occupations by J. T. Arlidge (London, 1892). Arlidge is generally accepted as one of the most painstaking observers of actual trade conditions, and his conclusions are, therefore, entitled to considerable weight. It must be considered, of course, that what was written in 1892 has since been considerably modified by occupational changes.

Arlidge combines printers and lithographers, referring to them as "operatives engaged in a mechanical trade, employing inorganic material." He mentions "the very high rate of mortality of printers" as one which has often arrested public attention and resulted in special investigations, particularly that of Sir John Simon and Dr. Edward Smith of the Privy Council, who in 1862 had conducted a lengthened inquiry into the sanitary circumstances of printers in the city of London.[1]

He refers to Doctor Smith as having prosecuted his inquiries by visiting printing offices connected with each division of the trade and examining the health conditions of readers, compositors, press and machine men, and boys and warehousemen, and that his painstaking report showed that in almost every printing shop there was a most lamentable absence of sanitation. Shops and offices were for the most part ill fitted for the work done in them, of insufficient cubic capacity, destitute of efficient ventilation, and with an atmosphere charged with the combustion products of an enormous gas supply and with the respiratory exhalations of the people at work. These insanitary surroundings were rendered so much the more injurious by prolonged hours and night work and by careless and intemperate habits on the part of the men, but the state of things differed somewhat according to the department of work pursued. Readers and compositors suffered in health more than machinemen, while in the case of lithographic printers an additional cause of sickness arose from certain poisonous colors used in their art.

These early observations are of historical importance in that they reflect the profound changes in the hygiene of printing establishments during the intervening period of years. Since the prevailing conceptions as to printers' health are largely based upon investigations made a generation ago, it is of the first importance that this fact should not be overlooked. Of compositors as a class, Doctor Smith, in his paper to the Privy Council, said: "By far the great

[1] Appendix to the Sixth Report of the Medical Officer of the Privy Councellor, p. 383 et seq.

majority are thin and pale, with large pupils, but they happily looked upon themselves as generally healthy, and had little to complain of as to appetite." He adds: "As a whole, I could not arrive at any other conclusion, from general observation, that they were a sensitive and not a robust race, enjoying life in only a moderate degree, and not peculiarly liable to varied and acute diseases, but with a tendency to defective alimentation and assimilation, and thence toward exhaustion of body and consumption." Further, "The nature of the employment leads to abnormal conditions of the eyes, such as congestion, inflammation, short sight, and blindness; but, with the exception of short sight, none came prominently under my observation. It is also commonly believed that the conditions of the employment lead to habits of drinking, and it is universally admitted that snuff-taking is the besetting sin of the compositor." (P. 201.)

Much of what is said here applies unquestionably to printers of the present day. While there has also been a profound improvement in the matter of personal hygiene there remains much room for further advancement. Arlidge mentions the earlier habit of compositors of placing type in their mouths. He refers to the dust which accumulates by friction of the type in the cases and in other ways as being the cause of serious injury. He gives the results of a chemical analysis by Doctor Smith, according to which, in 100 parts, 9.4 represented lead, 1.8 copper, and 1 antimony, while there was a trace of arsenic.

The subject of lead poison is briefly referred to, but it was not considered excessive in proportion to the number exposed to risk. Particular mention is made of the occurrence of pulmonary tuberculosis and other forms of chest diseases met with in connection with a state of low vitality and deficient alimentation. The conclusion was therefore arrived at that the general causes of the excessive mortality of printers were the unhealthy conditions of work, which in a large measure were readily preventable. Arlidge confirms this by his own observations, in part as follows:

> The work of compositors involves no muscular exertion, excepting that required, from time to time, to remove the forms, which may be of considerable weight, when the type set up is large. Otherwise the position of a compositor at work is almost wholly standing—a circumstance accountable for varicose veins, ulcers, and swelling of ankles. (P. 202.)

Arlidge refers to Doctor Smith as having attempted to determine the relative amount of sickness prevailing among printers by an analysis of the records of benefit clubs but as having found them inadequate to his purpose. This conclusion applies to many sick benefit societies of the present day on account of the failure to recognize the practical importance of a qualified examination of death certificates and of the proper statistical correlation of the members exposed to risk. Doctor Smith, however, found, upon such examination of the mortality of printers as he was able to make, that the duration of life of these artisans was less than that of other members of the general community. He proceeded to contrast the records of a sick society composed of compositors only with those of one admitting all the other operatives in the same establishment and found that the mortality among compositors was 60 per cent greater than among the other classes.

Doctor Arlidge agrees that the investigations of Doctor Smith into the health history of printers deserves most careful consideration, but he also points out that "the lapse of nearly 30 years will necessarily have exerted a modifying effect upon the picture given, and happily one marked by improvement in all particulars." This conclusion, of course, applies with far greater force to the conditions existing at the present time.

Arlidge continues as follows:

> In the first place, the health conditions of printers and their workshops have been vastly amended by the provisions of the factory act, under which they are placed. These provisions carefully regulate the duration of employment, the distribution of night work, and the age at which employment may be entered upon. The restrictions, however, do not apply directly to adult men, in accordance with the broad general principle of the act; nevertheless, rules are laid down for securing ventilation and cubic space, and likewise for the general salubrity and cleanliness of the workrooms. (Pp. 202, 203.)

A resulting improvement contributing to better health of printers was observed by him during the early nineties. He supports his conclusions by an analysis of the experience of the London Society of Compositors, represented by 799 deaths in the course of the 10 years ending with 1889. Of the 799 deaths from all causes, 296 were from pulmonary tuberculosis, and in addition there had been 85 deaths from bronchitis and asthma and 67 from pneumonia and pleurisy, or in other words 448, or more than half of all the deaths, were attributable to some form of respiratory disease. More specifically, pulmonary tuberculosis caused 37 per cent, bronchitis, 10.6 per cent; and pneumonia, 8.4 per cent of the deaths from all causes. Of these deaths from all causes, 82 were of compositors between 70 and 80 years of age and 24 were of those between 80 and 90 years of age. The experience represented an average annual membership of 6,348.

A noticeable fact disclosed by the investigation was the absence of lead poisoning. It was therefore held that such cases were probably very rare and when they occurred were the direct result of the insanitary habit of "chewing" type as well as of the neglect of personal cleanliness and needless exposure to dust. Mention, however, is made of the fact that in former years lead poisoning among printers had been much more common than at the time when the investigations of Doctor Smith and Doctor Arlidge were made.

Doctor Arlidge quotes Layet, a French authority, as enumerating the following common causes of illness among compositors: "Weakening of the sight, defects of accommodation, chronic inflammation and blepharitis, which he accounts for by the strain of eyes in composing and especially the glare of artificial light." There can be no doubt that eye strain, has caused a most serious contribution towards the ill health of printers in a variety of directions. Arlidge quotes Van Holsbeck as believing in a tendency to cerebral congestions and hemorrhage as a result of prolonged mental attention and also in the occasional onset of spasm and incoordination of the fingers from excessive use in their minute work and at a later period tremor. Other reported disasters of this occupation are neuralgic pains, deep fissures of the lips, and at times the development of tumors of the mouth, seemingly the consequence of "type chewing."

Arlidge observes that his own investigations do not confirm Layet's conclusions as regards the apparent frequency of eye strain.

There is a brief reference by Arlidge to the development of stereotyping, as follows:

> The process of stereotyping has been in use for many years, but has of late received an enormous development, particularly in connection with newspaper printing, so that now the copies of periodicals are printed from stereotyped plates instead of movable type set up in forms. One drawback to this improved process is that it subjects the workmen employed in the stereotyping shop to the handling of the metallic alloy used, rich in lead, and also to its fumes when melted preparatory to taking the castings. Inquiry I made showed that these operatives are liable to plumbism, and particularly the man or men engaged at the furnace melting the alloy and ladling it out. (P. 206).

Pressmen at the time of Doctor Smith's investigation are referred to by Arlidge as being apparently more healthy and vigorous than compositors, but, he observes, "their places of employment were, for the most part, very unfavorable hygienically, the machines being placed usually in the badly lighted and ventilated basement of the printing offices, and too frequently in contiguity with the boilers." In addition, Arlidge points out that "there are pressmen still, but their old mode of working has been superseded by the wonderful development of the modern printing machine, whereby the pressman has become little else than an attendant upon it; and we see the marvelous machine in newspaper offices strike off, fold, and count the sheets by thousands in an hour. Bodily strength is consequently at a discount, and the disadvantages of the occupation limited to the heat of the pressroom, caused principally by the heated cylinders of the press, and to a greater or smaller extent, where coal gas and not electricity is used for lighting, by the gas jets. Add to these the noise of the machines, the standing posture, and confinement in the pressroom and sustained attention to their work, and there remains nothing else calculated to injure the pressman's health, barring circumstances within his own control."

Finally, there is a brief reference to lithographers, as follows:

> Closely connected with the business of engravers is that of lithographers, and its subdivisions, found in the art of producing chromolithographs and oleographs. These occupations present no very obvious sanitary features, although in relation to art they are of very high interest and importance. They occupy a middle position, in regard to technical details, between artists and printers, and the only circumstance, apart from the hygienic state of their workshops and the necessary confinement within doors, that suggests itself as a cause of occasional sickness is the employment of poisonous colors. (P. 207.)

The foregoing observations are suggestive of the urgency of a more extended inquiry into the actual conditions under which the printing trades are carried on, leaving no doubt that conditions of employment bear directly upon the health hazard, while the improvement in working conditions during recent years must unquestionably have had a profound effect upon the general sickness and mortality rates.

The printing industry was included in the decennial review of occupational mortality, issued as a supplement to the fifty-fifth annual report of the registrar-general of births, deaths, and marriages of England (London, 1897). The number of printers returned by the census of 1891 was given as 75,962, but it is pointed out that since 1881 there had been an increase of nearly 39 per cent, so that a large proportion of the printers had been subject to a comparatively short

duration of trade life. In explanation of the comparative mortality figure for printers 25 to 65 years of age it is said (pp. xlviii and xlix of the above-mentioned supplement) that:

> The mortality of printers is above the standard at all the age groups dealt with. * * * Their mortality figure is 1,096,[1] which is higher than that of occupied males by 15 per cent. Like bookbinders, printers die very rapidly from phthisis, and probably for a similar reason, namely, because of the excessively unhealthy conditions under which their work is carried on; their mortality from diseases of the respiratory organs, other than phthisis, is, however, below the average, as is also their mortality from alcoholism. From diseases of the nervous, circulatory, digestive, and urinary systems, their mortality is in excess of the standard. Printers suffer only about one-third as much from fatal accident as do occupied males, but they are somewhat more addicted to suicide; their mortality figure for lead poisoning is 3.

With particular reference to phthisis, it may be pointed out that the relative mortality figure for printers was 326, as compared with 185 for all occupied males. But the figure was materially below that of tin miners, which was 508, and of file makers, given as 402, while it was decidedly above such occupations as coal miners of Durham and Northumberland (94), farmers (79), and clergymen (67).

The conclusions were based upon 2,677 deaths of printers from all causes during the years 1890–1892. The mortality rates by divisional periods of life do not materially differ from those of bookbinders, who, no doubt, are as a rule employed under much the same shop conditions.

Limiting the present comparison to ages under 45, it appears that at ages 15 to 19 printers had a death rate of 3.2 per 1,000 as against 2.8 for bookbinders; at ages 20 to 24 the rate for printers was 6.6 per 1,000 and for bookbinders 6.2; at ages 25 to 34 the printers' mortality was 9.1 and the bookbinders 9.0; at ages 35 to 44 the former experienced a death rate of 14.4 as against 15.4 for the latter. This comparison would seem to justify the conclusion arrived at by the registrar general, that the principal cause of the excessive death rate was to be found in "the excessively unhealthy conditions under which their work is carried on."

It is of interest in this connection to note that, according to the registrar general—

> The mortality of printers has decreased considerably in the course of the last 20 years, although the fall was slightly interrupted in 1881. Both the age groups in the main working period of life have shared in the fall, but in unequal proportions. As compared with that of 1881 the mortality caused by alcoholism in 1891 has more than trebled, and that caused by suicide has more than doubled. The mortality due to lead poisoning has fallen to half of the earlier figure, but that from diseases of the urinary system has seriously increased. Diseases of the heart and lungs also show an increase as compared with the previous record. The most important decrease occurs in the case of phthisis, the mortality from which has decreased since 1891 by one-sixth part of the former rate.

In 1900 Dr. Leonard A. Parry published a brief treatise on The Risks and Dangers of Various Occupations and Their Prevention, in which there are a few references to the printing trade, as follows:

> Type metal is an alloy of lead and antimony, and from the constant handling of the type containing lead, from the habit of holding type in the mouth (chewing type),

[1] This comparative mortality figure is based on the "standard population," a term used to designate the number of men aged 25 to 65 in the whole population among whom 1,000 deaths will occur in a year. This number was computed to be 61,215 in 1891. The number of men in each of the four 10-year age groups composing the standard population was also ascertained. Applying to each of these numbers the corresponding rate of mortality for printers in that age group and adding the results it was found that among 61,215 printers having the same age constitution as that which ruled in the general population there would be 1,096 deaths.

and from the inhalation of the dust in the boxes derived from the type itself, lead poisoning arises. The compositor should carefully avoid the very foolish habit of putting the type in his mouth. Stereotypers, from ladling the lead alloy, or inhaling the fumes of the melted mass, may also similarly suffer. (P. 71.)

Printers who use green pigments or yellow pigment are liable * * * to inhale the dust and get it into the stomach by means of contaminated food. (P. 83.)

With reference to lithographers it is said:

In lithographing, green arsenical pigments are used. The color is dusted onto the paper, the pattern of which has been previosuly stamped in size, and the excess is afterwards shaken off. It can easily be seen how the dust may be inhaled or the poison conveyed to the stomach. (P. 83.)

Among more recent investigations made in conformity to modern methods of industrial research an important position must be assigned to a somewhat extended discussion of the hygiene of the printing trades, by Sir Thomas Oliver, in his treatise on Dangerous Trades, published in London in 1902. The discussion by Sir Thomas Oliver, however, relates more particularly to industrial poisonings, being chiefly included in a section on "Lead and its compounds." He differentiates four distinct branches of the printing trade—type founding, printing, typesetting, and linotyping. He points out by way of introduction that—

Type metal is an alloy of lead with one-third to one-fourth of antimony. The antimony is added to harden the alloy, for lead is a soft metal. Occasionally small quantities of tin and copper are added, so that the alloy may be composed of 70 parts of lead, 18 of antimony, 10 of tin, and 2 of copper. (P. 324.)

It does not seem necessary to enlarge upon the technique of lead poisoning investigations, but the following observations by Sir Thomas Oliver are of particular value in this connection:

Printers as a class are often pale and unhealthy looking. Much of this may be due to the fact that they work in overheated rooms for long spells at a time and have late hours. H. M. medical inspector of factories reports that during 1900 there were 17 cases of lead poisoning in printers. One of the patients died. Ten of the men were compositors, 4 were linotypists, and 2 stereotypers. Doctor Stühler, of Berlin, taking his statistics from the reports of sick benefit societies, states that of 3,000 printers in Berlin 313 were annually sick from lead colic, i. e., about 10.4 per cent of compositors suffer from plumbism, either by absorption through the skin, caused by handling the type that has become oxidized during wear, or by swallowing the dust through eating with unwashed hands. Fromm discusses this subject, and alludes to the analyses of dust of printing houses made by Stumpf, who found that it contained often as much as 14.43 per cent of lead. In a report recently presented to the German Board of Health Faber states that he found in the dust collected from the floor 11.51 per cent of lead; that the dust taken from a shelf in the room contained 6.59 per cent of lead, while dust collected in the gangway between the desks in the composing room of a newspaper office contained 4.7 per cent of lead. In analyzing the air of printing shops Keygi found that the dust contained from 10 to 15 per cent of lead, which came from the wear of the type. Inhalation of the dust of the oxidized metal in all probability, therefore, plays a very important part in the causation of plumbism in compositors. During 1900 printing was in Britain responsible for 17 cases of lead poisoning. In 2 of the cases there were symptoms of lead encephalopathy, one of which proved fatal, and in another there was paralysis. Ten of the patients were compositors and 4 were linotypists. (Pp. 325, 326.)

It may be questioned whether the investigations referred to were made with the required thoroughness as regards the local distribution of the industry throughout Great Britain. The difficulty with such investigations is that they generally fail to take account of the plant practically free from health injurious conditions, while overemphasis is placed upon particular shops in which the sanitary conditions are decidedly unfavorable.

With reference to special circumstances affecting the health of compositors and extending beyond the question of lead poisoning, Sir Thomas Oliver observes:

It has to be borne in mind that compositors do a great deal of their work in an artificial light. As they are obliged to handle type very freely, the skin on the inner aspect of the last phalanx of the right thumb, forefinger, and midfinger occasionally becomes thick and hard, also the skin of the last phalanx of the left thumb, and the interdigital eminences of the left hand. According to Choquet, typographers suffer from two distinct maladies, one directly due to the mechanical nature of their work and the other attributable to the medium in which that work is carried on. Standing on their feet for long spells at a time, they run the risk of developing varicose veins, and as the rooms are either too brilliantly lighted or the reverse, to affections of eyesight. Older compositors frequently show a trembling of the right hand, due to fatigue caused by grasping and distributing the type, but in producing this tremor plumbism no doubt plays a part. Analogous to writers' palsy, the tremor is sometimes so persistent that it obliges the individual to renounce his work. The channels by which lead dust effects an entrance into the system are the buccal and nasal mucous membranes, the skin, the respiratory passages, and the alimentary canal. So slight are the intital troubles of the typographer that for a time they are unperceived. Acute plumbism does not occur among the compositors; it is always chronic. By degrees the individual begins to look pale; the skin becomes grayish and exhibits a slightly jaundiced tint; the appetite, too, fails, and digestion becomes weak, and obstinate constipation occurs. A blue line, if sought for, will be seen in the gums, and there is complaint of an unpleasant metallic taste in the mouth. The breath becomes fetid and motor and sensory troubles develop, especially at those parts that have been brought into the closest contact with the type. Often commencing with a sense of fatigue in the muscles, the paresis proceeds to motor paralysis. (P. 326.)

These admirable observations are amplified by specific precautions suggested for printing establishments, which are as follows:

Printing houses should be so situated that free currents of air can get to them, and not, as at present is too frequently the case, shut in by other buildings. Plenty of daylight and, if possible, sunlight are very desirable; daylight, if introduced by one side, should enter preferably on the left of the compositor, so that no shadow is thrown upon the case that contains his type. Light coming in from the roof obviates all this. So far as artificial lighting of the rooms is concerned, there is an opinion that the electric light is more hurtful than gas, and gas again more harmful than lamps. There should be tinted shades on the gas or lamps, green externally, white internally. The workroom should be well ventilated and without drafts; any dust generated should as far as possible be removed by fans. The type boxes should be kept clean and the floors periodically watered. By young compositors long hours ought to be avoided. No food should be eaten in the workrooms. Compositors should never do any work fasting and should avoid smoking when at work. Excesses of all kinds ought to be avoided, particularly the immoderate use of alcohol. Milk should be freely taken. On the occurrence of colic, the individual should at once give up his work and be medically treated. Washing the hands and rinsing the mouth before eating are absolutely required, also a bath once a week, and the wearing of overalls when at work. (P. 327.)

In this connection Sir Thomas Oliver discusses, very briefly, however, the subject of printers' phthisis, stating that—

One of the great foes of the printer is pulmonary phthisis. Much of this is undoubtedly preventable, since the disease is encouraged by the unhealthy conditions under which the work is carried on. Smith found that the mortality from consumption was 60 per cent greater than in most of the other trades. Of 799 deaths published by the London Society of Compositors for 10 years 1880–1889, inclusive, Arlidge found phthisis as the cause of death in 296, bronchitis and asthma in 85, pneumonia and pleurisy together were responsible for 67 deaths, paralysis and apoplexy for 61, and Bright's disease for 21. Pulmonary phthisis caused 37 per cent of the deaths. The largest number of deaths occurrred between the ages of 30 and 40 years. (P. 328.)

Reference is made in this connection to the earlier observations by Doctor Arlidge, but it is pointed out that the statistics of that period are not strictly comparable with the data for later years.

Sir Thomas Oliver therefore corresponded with the secretaries of the London Typographical Association and the London Society of Compositors, from the reports of which, through the assistance of Dr. Henry Armstrong, he obtained an interesting tabulation for the period 1894–1899, of which the following extract shows the principal facts:

MORTALITY STATISTICS OF THE LONDON TYPOGRAPHICAL ASSOCIATION, 1894 TO 1899.

Year.	Average membership.	Deaths from all causes.	Death rate per 1,000 members.	Deaths from—			
				Phthisis.	Other tuberculosis.	Pneumonia.	Bronchitis.
1894	12,480	107	8.6	32	3	4	9
1895	13,485	143	10.6	39	9	14	12
1896	13,784	143	10.4	43	3	15	7
1897	14,133	136	9.6	40	5	10	10
1898	14,838	146	9.8	41	3	4	10
1899	15,623	177	11.3	62	7	19	9
Total	84,343	852	10.1	257	30	66	57

The average number of members of the London Typographical Association during this period was 14,057, among whom there were 852 deaths from all causes, of which 257 were attributed to phthisis, 30 to other forms of tuberculosis, 66 to pneumonia, and 57 to bronchitis, making a total of 410 deaths from lung diseases, or 48.1 per cent of the mortality from all causes. The average annual death rate for the period was about 10 per 1,000, which can not be considered excessive and which would indicate that, except for lung diseases, the mortality of printers was rather above than below the normal average for industrial occupations; but the higher proportion of lung diseases is clearly indicative of trade conditions unfavorable to disease resistance. The experience of the London Typographical Association was confirmed by three years' data of the London Society of Compositors, with an average membership of about 11,000. For the London Typographical Association the mortality from all forms of tuberculosis was 3.4 per 1,000 members as against 3.9 for the London Society of Compositors per 1,000 members and 1.8 for the male population of England and Wales 20 to 65 years of age, per 1,000 population (1881–1890). For all forms of lung diseases, however, the rate per 1,000 for the London Typographical Association was 4.5, for the London Society of Compositors, 4.8, and for England and Wales 4.5. This would seem to indicate that the large excess in the general mortality was directly attributable to pulmonary tuberculosis, unquestionably increased in frequency by insanitary shop conditions, insanitary habits, poor nutrition, and possibly intemperance.

The statistics do not indicate any measurable influence of lead poisoning, but with reference to this matter Sir Thomas Oliver observes in his comments upon the foregoing data that:

> It is seldom that we meet with cases of printer's colic in these days, owing very largely to the change in the method of printing newspapers. Until recently the printing of newspapers was done by ordinary type, the compositor setting the type by touch and not by sight. He quickly picked out the required letters, deftly insert-

ing the nail of his thumb into the groove on one side of the type. It was through these operations that the skin of the fingers became thickened, and lead dust got under his finger nails. Having set and printed the paper, he had to take up, wash the type in lye, and subsequently distribute it, i. e., put each type back into its proper place. The distribution of the type required even more care than the setting of it, for a type wrongly distributed became a source of future trouble. Printing by hand type is rapidly on the decline, and is being replaced by stereotyping and linotyping. For newspaper printing there are now several fast printing machines in existence. Stereotyping has made it possible to print from a stamped cylinder without making direct use of the individual type. Endless rolls of paper, too, feed the printing machines. As many as 10,000 thirty-two page periodicals can be thrown off in an hour, but by perfecting the apparatus, as in Hoe's machine, as many as 24,000 are capable of being thrown off in an hour. (P. 331.)

The foregoing observations are amplified by comment upon the new practice of typesetting machines, which had then, however, only recently come into use:

It is in typesetting machines with automatic distribution that the greatest progress has been made. The Mergenthaler linotype machine, which is used for newspaper printing, produces and gathers in order successive bars of metal, each of the required length and breadth of a line, and bearing on its upper surface the type which prints the line. In the machine are small brass matrices, representing the different letters, etc. When the operator presses a finger key on the board in front of him a single matrix bearing the required letter falls out of the magazine, and is carried to the assembling block, where the various matrices are set up, side by side, in a line or row. Subsequently these are transported to the face of a vertical mold wheel. Into the face of the mold molten type metal is pumped, and thus a slug or linotype is produced. As the formation of the slugs is effected automatically, the operator does not handle the metal, consequently plumbism is rare, only two cases of lead poisoning in linotypists appearing in the Annual Report of the Chief Inspector of Factories for 1899, and four in 1900.

The new methods of printing have certainly diminished the number of cases of lead poisoning among printers, but the introduction of linotyping is losing us, as a people, an art. No person contends that, for finish, linotyped printing is equal to that obtained by hand-set type. Except for book printing, in which the letters stand out boldly and clearly, and which as a trade is being relegated to a few towns, stereotyping and linotyping are in our own country rapidly eliminating typography. Since this is unavoidable, it is to be hoped that linotyping will yet further improve, for badly printed newspapers are trying to the eyes. On the Continent most of the small newspapers are still printed by hand-set type, and consequently lead poisoning among printers is more prevalent there than here.

Compositors working the linotype machine run little risk of lead poisoning if they keep themselves and the workrooms clean. In linotypists the danger is not in handling the metal, for the need of doing this is rare; it is rather through inhalation of the fumes of the molten lead or from oxidation of lead particles that are lying about on the machine and floor. I have met with a few cases of colic in linotypists, but the attacks of pain have been mild and much more quickly got over than in compositors who use the ordinary type. In some, too, I have observed some of the milder derangements of the nervous system, mostly functional, that are the result of plumbism. (Pp. 331, 332.)

The foregoing observations are suggestive of the direction in which further research is of the first importance. The data relied upon in the main are generally mortality returns, which can not but fail to do justice to the trade as a whole. There is another objection to the exclusive use of mortality statistics in that they reveal rather the end results of conditions the severity of which may have long since passed away. Current morbidity statistics would be more useful, but in its final analysis the true test of health and well-being in a trade can only be revealed by a physical examination of the employees and the trade experience in matters of health and well-being during the time that the men have been at work.

Industrial Safety Work in California.[1]

THERE were reported to California's Industrial Accident Commission 550 industrial deaths in 1921, 1,643 permanent injuries, and 123,336 temporary injuries. This was a reduction over the casualty lists of 1920, and the reduction in the California industrial death rate, per 100,000 of population, is 38.39 per cent for the years 1914 to 1921, inclusive. The guarding of machinery, formation of shop committees, various educational processes, introduction of safety standards, and other methods are responsible for the substantial reduction in the death toll of industry.

Until the Argonaut mine catastrophe on August 27, 1922, the safety movement in the mining industry had shown excellent results. The official accident death rate of California miners is as follows: 1915, 46; 1916, 50; 1917, 47; 1918, 51; 1919, 20; 1920, 31; 1921, 16. Mine safety orders were prepared in 1915 by a committee of seven—three mine operators and three mine employees, with the commission's mining engineer. After public hearings, the orders were made permanent by the commission. They were revised in 1920 and reaffirmed as of January 1, 1921.

Bulletin 75 of the United States Bureau of Mines contains a full report and the draft of a proposed law submitted by a committee of the American Mining Congress. The California set of 77 mine safety orders was based upon the outcome of the deliberations of this committee, and after consultation with United States Bureau of Mines officials.

A cooperative agreement with the Federal Government at the time the workmen's compensation, insurance, and safety act became effective resulted in the assignment to California of a skilled mining engineer named by the Bureau of Mines, whose salary and expenses were equally divided between the Federal and State Governments. Safe practices were introduced into the mines. The Industrial Accident Commission assisted in securing the United States Mine Rescue Station at Berkeley, where two trucks are provided with oxygen-breathing apparatus and also with equipment for fire fighting and reviving men overcome by gas, and special bulletins have been issued by the commission at intervals relating to safeguard against injuries in mines. The law passed by the California Legislature of 1872 requiring a second mode of egress from each mine was a dead letter until the Industrial Accident Commission incorporated it among the mine safety orders. The Argonaut mine had the two exits required by law, but the fire which started above where the miners were working quickly liberated the noxious gases and fumes always prevalent in a mine, and made it impossible for the imprisoned men to use a second exit of ladders to the surface.

The Industrial Accident Commission's safety department, states the chairman of the commission, lacks the financial resources to attend to the important calls which daily come to it. The 6,000 industrial dead in this State during the last decade are mute evidence of a need which should awaken an instant response from thoughtful citizens. The sum of approximately $150,000 for safety work was at the disposal

[1] Summary of address by Will J. French, chairman, Industrial Accident Commission of California, before convention of California State Federation of Labor at Long Beach, Calif., Oct. 5, 1922.

of the Industrial Accident Commission in 1921, a totally inadequate amount to supervise the industries of a State the size of California. Sufficient money should be available to inspect mines, factories, and all other places of employment. Last year the commission used a little over $18,000 for the mining division, and the two men in the field were supposed to inspect mines, quarries, tunnels, gold and suction dredges, oil operations, cement and brick plants, gravel pits, and rock crushers. The committee of the American Mining Congress has estimated that a State like California should have between $50,000 and $100,000 a year for mine safety work.

List of Publications on Industrial Hygiene.

THE Industrial Hygiene Service of the International Labor Office is publishing regularly in the International Labor Review a bibliography of books on industrial hygiene and of articles appearing in the more important reviews and periodicals of the medical and industrial press. The bibliography, which appeared first in the May issue of the International Labor Review, includes general articles on industrial hygiene, sanitation, ventilation, humidity, gases, fumes, dust, fatigue, health problems in particular industries, and specific industrial poisons as well as articles on vocational guidance, scientific management, welfare, and recreation. The bibliography provides, therefore, a valuable guide to the literature of many countries in regard to social and industrial medicine.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

Ninth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.

THE ninth annual meeting of the International Association of Industrial Accident Boards and Commissions was held at Baltimore, Md., October 9 to 14, 1922. Twenty-one States, three Canadian Provinces, the United States Employees' Compensation Commission, the United States Bureau of Labor Statistics, the United States Bureau of Standards, and the United States Veterans' Bureau were officially represented. Addresses of welcome were delivered by Hon. Albert C. Ritchie, Governor of Maryland, and by Hon. William F. Broening, mayor of Baltimore. Mr. Robert E. Lee in his presidential address surveyed the present compensation situation in the United States and Canada, stressed the importance of accident prevention, rehabilitation, and uniformity in administration, and recommended the inclusion of occupational diseases in the category of compensable injuries.

Claim Procedure and Standard Permanent Disability Schedule.

THE program of the association this year dealt primarily with the questions of uniformity and adequate standards in compensation administration and legislation. A report by the committee on forms and claim procedure was considered and adopted by the association. This report sets forth certain standard minimum requirements and detailed methods of procedure relating to accident reporting and claim procedure for State fund and competitive insurance sytems. Another report, by the committee on statistics, outlined a standard permanent partial disability schedule which was to displace the present flat schedules in use in practically every American State. The association referred the schedule back to the committee on statistics for further consideration but approved the following four principles recommended by the committee:

1. The schedule of permanent partial disability compensation shall be for compensation to be paid after compensation has been paid for temporary disability, whether total or partial.
2. Compensation for permanent total disability shall be valued on the basis of total disability for life.
3. Compensation for permanent partial disability shall be valued as a percentage of permanent total diability.
4. The permanent disability schedule shall be one designed to measure loss of earning capacity, considering all elements.

Medical Session.

THE medical session included papers on Malignant disease with reference to traumas in industry, by Dr. Joseph Bloodgood, of Baltimore; Causation or aggravation of hernia, by Dr. Alexis McGlannan, of Baltimore; Diagnosis of industrial back conditions, by Dr.

J. W. Sever, of Boston; and Compensation for injuries to the eye, by Dr. William Tarun, of Baltimore. A satisfactory compensation table for eye injuries is still to be compiled. There are several such tables in existence, but none is universally accepted. Dr. Tarun suggested, and the suggestion was adopted by the association, that the International Association of Industrial Accident Boards and Commissions appoint a committee to cooperate with a similar committee of the American Medical Association to work out a standard eye injury schedule for use by compensation commissions. Dr. F. D. Donoghue, of Boston, chairman of the medical committee of the association, submitted to the convention the final report of his committee on "A schedule for eye injuries." This report was received too late for consideration by the association.

Accident Prevention.

THE session on accident prevention proved to be an especially interesting one. The papers read included the following: Mr. James L. Gernon, chief factory inspector of the New York Department of Labor, read a paper on the Value of careful factory inspection. In discussing this paper Mr. L. A. Tarrell, of the Wisconsin Industrial Commission, pointed out the value, for the purpose of preventing accidents, of penalizing employers and employees who violate or disregard the safety orders of the commission. Mr. E. L. Elliott, consulting engineer of the Cooper-Hewitt Electric Co., discussed industrial lighting as an accident hazard. Dr. S. Dana Hubbard, of the Department of Health of New York City, pointed out the great need for industrial sanitation. Mr. M. G. Lloyd, of the United States Bureau of Standards, presented a paper on the history and preparation of safety codes under the auspices of the American Engineering Standards Committee.

Uniformity in Compensation Administration and Legislation.

IN addition to the reports of the committees on claim procedure and statistics, the following papers dealing with uniformity or adequacy in compensation administration and legislation were read:

Mr. Carl Hookstadt, of the United States Bureau of Labor Statistics, presented for consideration by the association a new method of computing average weekly wages. According to the plan outlined, the method of computing average weekly wages varies with the type of disability. In case of temporary disability or death the average wages shall be based upon full-time wages at the time of injury, whether the employment be regular, intermittent, or casual. That is, the daily or hourly wage shall be multiplied by the number of hours or days regularly worked in the occupation and industry in that locality. In case of permanent disability the average wages shall be based upon the earnings of the workman for the prior twelve-month period but modified by a wage-variation factor which would take into account the probable increase and decrease in wages during the industrial life of the average workman.

Mr. R. M. Pennock, actuary of the New York State insurance fund, presented a paper on the proper method of computing workmen's compensation claim reserves—a question which is of utmost importance to State insurance funds relative to the solvency of the fund.

An adequate death benefit schedule was the subject of a paper by Mr. Will J. French, chairman of the California Industrial Accident Commission. Adequate death benefits, according to Mr. French, should include an income to the widow until her death or remarriage sufficient for living needs and not confined to a limited percentage of her husband's wage if such wage was inadequate to provide a reasonable living standard; and an income for each dependent child to the end that the home life be conserved, with the provision that there be full opportunity for the education of the child.

In a paper on An adequate weekly maximum, Mr. G. C. Kelly, general manager of the Pennsylvania Compensation Rating and Inspection Bureau, pointed out the gross injustices resulting from the low weekly maximum provisions in compensation laws and stated that the only adequate weekly maximum was no weekly maximum.

The vexed problem of extraterritoriality was discussed by Mr. L. D. Clark, of the United States Bureau of Labor Statistics, in a paper in which he surveyed the present confusing situation with respect to this question and offered for consideration the following uniform provision: "The fact that the injury for which compensation is claimed occurred outside the State shall not affect the rights of claimants under this act."

Legislative and Administrative Problems.

AMONG other important papers dealing with legislative and administrative problems was a discussion of Schedule versus experience rating, by Mr. Leon S. Senior, manager of the New York Compensation Inspection Rating Board. Mr. Ethelbert Stewart, United States Commissioner of Labor Statistics, read a paper on the Status of farm labor under workmen's compensation in the United States and foreign countries and also discussed the problem of lump-sum settlements. Mr. Stewart pointed out that farm labor was covered by compensation laws to a considerable extent in many of the European countries but that none of the State or Canadian acts, with the single exception of New Jersey, included farm laborers. He also showed by statistical comparisons with other industries that the hazard of agriculture ranks very high. With respect to lump-sum settlements Mr. Stewart urged each compensation commission to investigate the results of each lump sum granted in order that reliable information as to merits of this policy may be had. A paper which excited keen interest and spirited discussion was one presented by Mr. C. A. McHugh, of the Industrial Commission of Virginia, in which he discussed a plan for the dissemination of workmen's compensation information through the public schools in that State. The association appointed a committee to investigate the merits of this plan, with instructions to report to the association at its next meeting. Other papers included Principles of social insurance, by Mr. L. Santiago Carmona, chairman of the Workmen's Relief Commission of Porto Rico; Hernia, by Mr. F. A. Duxbury, chairman of the Industrial Commission of Minnesota; Problem of noninsurance, by Col. L. T. Bryant, commissioner of labor of New Jersey; Policy with respect to auditing pay rolls, by Mr. E. S. Gill, of the Depart-

ment of Labor and Industries of Washington; and Status of maritime employments under workmen's compensation, by Mr. Henry D. Sayer, industrial commissioner of New York.

Officers Elected.

THE following officers were elected for the ensuing year: President, F. A. Duxbury, chairman, Industrial Commission of Minnesota; vice president, C. A. McHugh, member, Industrial Commission of Virginia; secretary treasurer, Ethelbert Stewart, United States Commissioner of Labor Statistics; executive committee, F. A. Duxbury, chairman, Industrial Commission of Minnesota; C. A. McHugh, member, Industrial Commission of Virginia; Ethelbert Stewart, United States Commissioner of Labor Statistics; Robert E. Lee, chairman, Industrial Accident Commission of Maryland; Fred W. Armstrong, Workmen's Compensation Board of Nova Scotia; O. F. McShane, Industrial Commission of Utah; Lee Ott, compensation commissioner of West Virginia; Henry D. Sayer, industrial commissioner of New York; Baxter Taylor, chairman, Industrial Commission of Oklahoma.

The next meeting of the association will be held in St. Paul, Minn., September 24 to 27.

Recent Compensation Reports.

Colorado.

THE Industrial Commission of Colorado, administering the workmen's compensation law and other laws of the State, reports operations of the compensation law for the year ending November 30, 1921.[1] Insurance in this State may be in stock or mutual companies, in the State fund, or by self-insurance. Full premium returns are not available, only those of the State fund being as yet reported for the year. The State fund is the leading compensation-insurance carrier in the State. The stock companies in 1920 collected premiums amounting to $906,639.75, mutual companies $502,262.10, while the State fund alone received $460,116.11, the total being $1,869,017.96. Losses actually paid, not including amounts set aside for reserves, for 1920 were: Stock companies, $356,059.22; mutual companies, $111,893.71; State fund, $128,333.71; a total of $596,286.64.

The business depression of 1921 caused a considerable falling off in the premium income of the State fund, and doubtless of other insurers as well. The income for 11 months for the State fund was $360,181.68, while losses paid aggregated $153,109.29.

Self-insurance was authorized by 53 permits issued in 1921, in regard to which indemnity bonds, etc., amounting to $735,000 are held. Other securities bring the total guaranty for self-insurance up to $1,794,619.61. Three applications for self-insurance permits were denied during the year, while one self-insurer decided to take a policy with an insurance carrier, and another withdrew its election to be subject to the provisions of the compensation act.

[1] Colorado Industrial Commission. Fifth annual report, Dec. 1, 1920, to Dec. 1, 1921. [Denver, 1921.]

The report emphasizes the fact that much of the new business which the State fund secured in 1921 came from large industrial risks in and about Denver, many employers who were formerly skeptical as to the stability of the fund, becoming convinced of its strength, having become insurers under its policies. A statement of income and disbursements for the fiscal year shows receipts amounting to $487,093.43, amounts due from the State treasurer and outstanding premiums bringing the total up to $699,876.54. As disbursements are noted compensation and medical aid, $165,620.38; dividends, $74,367.92; and expenses of management, $13,043.81. Other sums were disbursed as investments, leaving a balance on hand of $411,952.55.

The disbursement item, "Expenses of management," is a new one and covers but eight months. "This item for the full year should represent less than 7 per cent of the premiums written, which is a very low expense ratio when compared with the expense ratio of the stock companies, which average 35 to 40 per cent." Admitted assets amount to $1,186,823.30, the total liabilities being $849,449.34, showing a surplus over all liabilities of $337,373.96.

Accidents reported during the year were 13,904 in number. There were 4,025 claims, 3,382 agreements approved, 1,143 awards by referees and 351 by the commission. Compensation awarded amounted to $433,551.06. The claims amounted to 28.94 per cent of the accidents, the average for the existence of the law (1915 to 1921) being 24.38 per cent. Of the total number of claims, 151 were for fatal injuries, 46 being in the coal industries, 24 in the metal industries, and 81 in miscellaneous industries. The number of persons wholly dependent was 54, 14 others being partially dependent. In 72 cases there were no dependents. Compensation was denied in 332 cases, of which 47 were fatal and 285 nonfatal.

The average weekly wage of persons injured was $26.04, and the average weekly rate of compensation $9.76. The average period of disability was 11.93 weeks.

South Dakota.

THE industrial commissioner of South Dakota reports the fifth year of operation of the workmen's compensation law of the State, covering the 12 months ending June 30, 1922. The report is general in its nature, with practically no statistical tables. Amendments of a minor nature are suggested, though one of greater importance is recommended, relating to the phrase "arising out of and in the course of employment." The restriction is found to have worked injustice, and it is proposed to change it so as to compensate for accident or death of an employee while engaged in the employment of the employer. Clarification as to the time when compensation should begin, i. e., from the date of the injury, and a provision as to surgical and hospital fees are also desired. The limit of $3,000 in case of death is also regarded as too low. In considering the subject of insurance, a conclusion apparently adverse to the State system is arrived at, though the question is an open one in the State. Complaint is made of the failure of employers to insure their liability under the statute.

The number of accidents reported during the year was 3,282, of which 2,730 were closed, 503 being reported as not closed. No refer-

ence is made to the disposition of the 49 cases not accounted for under either heading. There were 25 fatalities.

Other information presented is a schedule of fees adopted by the State medical association, which is used as a basis of estimate by the industrial commissioner in disputed cases; number of employees and wages in important industrial establishments; average wages and hours of labor in industries during the year, etc.

Franco-Belgian Convention Regarding Miners' Pensions.[1]

THE convention relating to miners' pensions which was concluded between the representatives of the French and Belgian Governments on February 14, 1921, has been approved by the French Senate and Chamber of Deputies and the ratifications of this convention having been exchanged by the two countries at Paris in June, 1922, it was put into effect by a decree of July 10, 1922.

The main provisions of the convention are as follows:

French workers employed in Belgian mines will receive without regard to their place of residence the production bonuses provided for in the Belgian law relating to old-age pensions. If they have worked 30 years in the Belgian mines and if, besides, they have fulfilled the other conditions as to age and continuity of service required by the special legislation in regard to the retirement of Belgian miners they will have the right both to the State allowances and those of the retirement funds.

Belgian workers employed in France, who at 55 years of age can show either 30 years of service, representing 7,920 days of actual labor, in the French mines or 30 years of work for wages in France, at least 15 of which have been spent in mining, will receive under the same conditions as the French workers allowances and supplements for expenses both from the French State and the independent retirement funds of the miners.

Nationals of the two States who have not worked 30 years in either the French or the Belgian mines but whose combined service in the two countries amounts to that length of time will be entitled to a pension of which the amount will be at least equal to the minimum pension fixed by the least favorable legislation of the two States. It is understood, on the other hand, that work in either of the countries will not be considered in the determination of a pension or of an increase unless it amounts to a minimum of five years representing 1,520 days of labor.

Pensions for widows are governed by the same rules as those applying to their husbands but are subject to the laws of the two countries in regard to age and the duration of the marriage.

The convention will be applicable to all workers whose age and duration of services fulfil the requirements of the convention at the date on which it is put into effect.

The duration of the convention is to be for one year and it will be tacitly renewed each year unless it is denounced by either signatory three months before the time of its expiration.

[1] Comité Central des Houillères de France. Circulaire No. 5663. Paris, July, 1922.

LABOR LAWS AND COURT DECISIONS.

United States Coal Commission.

PUBLIC Act No. 347, approved September 22, 1922, provides for the establishment of a commission of seven members appointed by the President, by and with the advice and consent of the Senate. Its purpose is to secure "information in connection with questions relative to interstate commerce in coal and all questions and problems arising out of and connected with the coal industry." The only limitation on membership is that no Member of Congress shall be eligible to serve. The commission is to select its own chairman, and to maintain central offices in the District of Columbia, though it may meet elsewhere on its own determination. Salaries are fixed at $7,500 each per year, the commission to "cease to exist one year after the taking effect of this act." The President may remove any member for neglect of duty or malfeasance in office, but for no other cause. Vacancies may be filled the same as original appointments. The term "coal" covers anthracite, bituminous, and other coal, lignite, coke, and culm, whether in place, extracted, or banked.

The essential provisions of the statute are as follows:

It shall be the duty of said commission to investigate and ascertain fully the facts and conditions and study the problems and questions relative to the coal industry with a view to and for the purpose of aiding, assisting, and advising Congress in matters of legislation which will insure a supply of this commodity to the industries and the people generally throughout the country and maintain the uninterrupted flow of commerce among the States, or any legislation which Congress may, after said investigation, deem wise and which, under the Constitution, Congress has the power to enact.

To this end said commission shall ascertain and report to the President and Congress: As to the ownership and titles of the mines; prices of coal; the organizations and persons connected with the coal industry; cost of production; profits realized by the operators or owners of said mines during the last 10 years; profits of other persons or corporations having to do with production, distribution, or sale of coal; labor costs; wages paid; wage contracts; irregular production; waste of coal and suggestions as to the remedy for the same; the conditions generally under which coal is produced; distribution; the causes which from time to time induce strikes, thereby depriving interstate carriers of their fuel supply and otherwise interrupting the flow of interstate commerce; and all facts, circumstances, or conditions which would be deemed helpful in determining and establishing a wise and efficient policy by the Government relative to said industry.

Said commission shall, under the provisions of this act, make a separate investigation and report for the anthracite industry, which investigation and report shall cover all of the matters specified in the last preceding paragraph, and shall cover also every other phase of the anthracite industry, including the production, transportation, and distribution of anthracite, and the organized or other relationships, if any, among the mine operators or the mine workers, or among any persons engaged in the production, transportation, or distribution of coal.

Said commission shall also submit recommendations relative to:

(*a*) Standardizing the mines upon the basis of their economic productive capacity and regarding the closing down of mines which, by reason of their natural limitations or other conditions, fall below the standard.

(*b*) Ascertaining and standardizing the cost of living for mine workers and the living conditions which must be supplied or afforded in order to surround the workmen with

reasonable comforts, and standardizing also as far as practicable the amount of work a man shall perform for a reasonable wage, recognizing the value and effect of such surroundings in respect of their efficiency.

(*c*) Standardizing a basis of arriving at the overhead cost of producing and distributing the coal, including delivery at the door of the consumer, recognizing in this compilation that the standardized cost of living to the miners should be the first and irreducible item of expense.

(*d*) The advisability of any legislation having to do with Government or private ownership, regulation, or control in the coal industry.

Said commission shall render its first report and recommendations to the Congress and to the President not later than January 15, 1923. Said commission shall render its separate report on the anthracite industry on or before July 1, 1923, and shall endeavor, in said separate report and in the recommendations contained therein, regarding wages in the anthracite industry, to take into consideration the conditions obtaining up to the time when said report is made.

The disclosure of information by any officer or employee of the commission is a misdemeanor, punishable by fine or imprisonment, or both. The commission has power to administer oaths, subpœna and examine witnesses, compel the production of records and documents, provide for the taking of depositions, etc. The fact that testimony or evidence may tend to incriminate a person or to subject him to penalty or forfeiture is no excuse from attending and testifying, but no natural person may be prosecuted or penalized for or on account of matters as to which evidence is given under compulsion. This does not exempt from punishment for perjury, if committed.

The commission may make such expenditures as are necessary for the efficient execution of its duties, and may make such rules and regulations as are found essential. No employee may receive a salary in excess of $7,500 per year. The sum of $200,000 is made available for the use of the commission for carrying out the provisions of the act.

On October 10 President Harding announced the personnel of the new commission as follows: John Hays Hammond; former Vice President Thomas R. Marshall; Judge Samuel Alschuler; George Otis Smith; Charles P. Neill, former Commissioner of Labor Statistics; Dr. Edward T. Devine; and Clark Howell.

Social and Economic Interpretation of Fourteenth Amendment.

THE above is the title of a paper read at a joint session of the American Political Science Association; the American Economic Association, and the American Sociological Society during their annual meetings at Pittsburgh in December, 1921. The writer is Prof. Robert Eugene Cushman, of the University of Minnesota, the paper being reproduced in the Michigan Law Review for May, 1922. The purpose of the paper is to discuss the subject announced as a phase of the "trial and error process" of arriving at a judicial statement of what is meant by due process of law and the equal protection of the law, as these questions arise in the development of the nation's industrial and social life. The fact that many of the illustrations are taken from decisions construing labor legislation makes it seem desirable to present in the MONTHLY LABOR REVIEW a summary of the principal points made by Professor Cushman in his careful study.

Beginning with a recognition of the fact that "the judicial construction of due process of law and the equal protection of the law has from the first discouraged systematic analysis and defied synthesis," the trend of the interpretation and application of the fourteenth amendment is studied from its adoption up to the present time. The discouragement that has been felt by students of the problem who desire the formation of "a neat and compact set of fundamental principles" is set over against a paradoxical satisfaction in the very fact that "the application of the fourteenth amendment to these problems has, for the most part, been halting, changeable, chaotic, and conflicting." It has been a process of trial and error indeed, but it has prevented the fixing of earlier individualistic doctrines as controlling principles.

The nature of social and economic legislation is essentially compulsory or restrictive in some respect, having in view the purpose of promoting the community welfare. This is done under the police power, which together with the powers of taxation and eminent domain are limited by the due process and equal protection clauses of the fourteenth amendment. Definitions of these two clauses can not, in the nature of things, be made, but their general purpose is to forbid arbitrary legislation, i. e., that which would restrict individual liberty or property rights more severely than the advantages to the community can justify; while equal protection means protection against arbitrary discrimination or class legislation. The term "arbitrary" is not in itself a standard, its application to a given piece of legislation being largely a question of opinion. Here the legislature first proceeds by the enactment of what it regards proper legislation, the courts having the last word in passing upon the question of constitutionality. A fundamental question for the courts is the weight to be given to the formal expression of legislative opinion as found in the law to the effect that the act under consideration is not arbitrary, but is justified by existng social needs. Professor Cushman finds three distinct phases of juidicial attitude during the 50 years which have elapsed since the fourteenth amendment was adopted, with the promise of entering upon a fourth.

The first position assumed was one of an extremely restricted application of the amendment, the view being expressed that it was strictly for the benefit of the newly freed black man, and had no application to exercises of legislative power which did not involve racial oppression or discrimination. Legislative abuses were to be corrected not by the courts, but by resort to the polls, and even when a law levying a State tax for private purposes was held unconstitutional the decision was not based on the fourteenth amendment, but on the general concept of the nature of free governments and the reservations of individual rights. This was called the period of judicial noninterference.

The second period was one in which a radical departure from this attitude became manifest, and is called "the period of judicial ruthlessness—mechanical and legislative interpretation of fourteenth amendment." Fortunately for this transition, the Supreme Court has "safeguarded its future peace of mind by refusing to give any authoritative definition of due process of law or equal protection of the law"; and the attitude of the Supreme Court in 1876 and 1878,

in which efforts to bring in the fourteenth amendment as a test proposition had been frowned upon, was so changed that "by the middle eighties we find the courts standing openly and triumphantly for the doctrine that the fourteenth amendment imposes judicially enforceable restrictions upon social legislation." Reasons for this marked change of attitude are suggested by the extensive change in personnel of the court and the recession into the background of the state of mind developed by the Civil War in which attention had been fixed strongly upon class and racial problems. A third reason was the more or less continuous pressure brought about by lawyers and their clients for some protection by the courts against legislative interference with their interests. A broader construction was therefore given to the fourteenth amendment, the courts undertaking the duty of applying to social legislation the limitations of due process of law and the equal protection of the law and also of determining how these guaranties "could be used as yardsticks for measuring the validity of social legislation."

It was during this period that legislative discretion was reduced "almost to the vanishing point." Liberty of contract was emphasized and the power of a legislature to pass labor legislation or similar restrictive laws affecting the right to contract was almost denied, at least for persons sui juris. Children might be legislated for, but adult women and certainly adult men must be left alone to contract according to their own judgment. It was this spirit that found expression in a California court holding unconstitutional a law regulating the time and method of wage payment in certain industries. It was here said that the law treats the workman of intelligence as an imbecile. "Being over 21 years of age and not a lunatic or insane, he is deprived of the right to make a contract as to the time when his wages shall become due." The New York courts refused to permit the State to "disturb the sacred right of an adult woman to work 'at any time of the day that suits her'"; while the Supreme Court of Illinois would give her the liberty of working "as many hours during the day and night as she might wish." To this period also belongs the earnest solicitude of the New York courts for the privilege of a tenement dweller to pursue his sweated trade of cigarmaking without being forced "from his home and its hallowed associations and beneficent influences to ply his trade elsewhere." The Supreme Court of the United States also refused to permit the Legislature of New York to express its opinion as to the nature of the baking industry by a statute limiting the hours of labor in this alleged unhealthy employment. "The attitude assumed by the courts toward such legislation was usually one of suspicion, not infrequently one of open hostility, and almost invariably one which placed upon the shoulders of those defending the legislation the burden of proving it to be constitutional. * * * The idea that the validity of a police regulation might really depend upon whether certain social or economic needs did or did not exist was quite abhorrent to the judicial mind." Precedents and legal arguments controlled instead of evidence as to actual social and economic conditions. The opinions of this period "breathe forth judicial tenderness and concern for the unfortunate workingman, and with hearty enthusiasm the courts proceeded to rescue him from an attempted legislative oppression which, by

subjecting him to the legal requirements of reasonable hours and conditions of labor, infringed thus brutally upon his sacred right of free contract."

The transformation from this attitude to one of a realistic interpretation of the fourteenth amendment, in which the courts sat as social and economic experts, may be said to be marked by the action of the Supreme Court in 1908 in upholding the Oregon 10-hour law for women. It was in connection with this case that Mr. Brandeis, now a justice of the Supreme Court, and Miss Josephine Goldmark, with whom Professor Frankfurter, of Harvard University, later collaborated, presented their exhaustive and important brief setting forth the physiological and social reasons why women needed protection from overlong hours of labor. The force of this presentation was such that the Supreme Court could not fail to recognize it; and while the authorities were not thus of judicial precedent, and the question was still debated, acceptance of the truth of the matter alleged is favored by reason of a widespread and long-continued belief in the correctness of the views expressed, and "we take judicial cognizance of all matters of general knowledge." The courts of New York and Illinois likewise "experienced a similar change of heart," giving effect to new and additional knowledge even though it leads to the taking of a different view of vastly important questions.

This change of attitude was "not sudden or universal"; but gradually became fairly representative. Instead of a mechanical "jurisprudence of concepts," something followed that might be called "sociological jurisprudence." The burden of proof was likewise shifted to the shoulders of those attacking the constitutionality of the law, instead of the court indulging in presumptions against the validity of the new legislation.

It seems to the writer that this third phase of the judicial attitude respecting the construction of the fourteenth amendment may be summarized thus: The courts did not cease to be active arbiters of the validity of social and economic legislation, but they did adopt the policy of deciding the question of that validity upon the basis of social and economic facts. Legislative determinations still received somewhat meager respect of their own weight, but whenever any substantial factual basis for the legislation could be found either in evidence actually presented or in a consensus of public opinion shared by the court the burden of proof was placed squarely upon the shoulders of those who attacked the statute.

This marked change from one of suspicious scrutiny of legislative action to a more general consent that proper credit should "be given to the State legislature for knowing its own business" is regarded as promising a beneficial influence on the legislatures in that it will throw upon them the responsibility of legislating without indulging the presumption, practically forced upon them, that the responsibility for constitutionality rested entirely with the courts. An even more liberal attitude, especially on the part of the Supreme Court, is said to be indicated during the last few years, though "there is danger of overemphasizing the extent of this change." The movement is not unbroken, a recrudescence of the old dogmatic legalism occasionally manifesting itself. The attitude differs from that of the third period, during which the courts took the position of social and economic experts, in that there is said to be a tendency toward "judicial self-denial," the social and economic questions involved being left for legislative determination. It is recognized that these

questions are not questions of absolute or pure fact but are questions of opinion on which honest and sensible people will inevitably differ. In view of this fact, the legislature is the proper division of the Government to declare the policy of the State, without asking the court to reach the same conclusion of necessity, the test being not as to its personal indorsement of the doctrines involved, but whether or not responsible men could have arrived at the conclusions presented. Judicial tests of reasonableness give way to the considered legislative policy of the State.

Cases are cited which appeal to the writer as expressive of this tendency, with quotations embodying the idea of the larger legislative discretion. It is conceded that these statements viewed separately seem of slight importance. "Their significance is cumulative. They give evidence of a growing willingness on the part of the court to regard social and economic legislation as constitutional unless some palpable and egregious defect in it be visible." Opinions will differ as to whether this is "a weak-kneed abdication of a judicial authority" or "a wholesome return to a sound appreciation of the proper sphere of judicial action." The writer regards it as wise and salutary, the responsibility for the laws resting primarily with the legislatures. Responsibility will develop character if legislators are compelled to be the actual sponsors of their laws, while the courts will regain popular confidence by withholding their hands from the work of legislation. It is believed that an adjustment of the principles thus apparently coming into effect would "correct the only actual defects which have ever existed in our system of judicial review," and remove the occasion for "more radical and questionable devices, such as the recall of judges or decisions, which have from time to time been proposed."

Retirement of Civil-Service Employees.

AN ACCOUNT was given in the MONTHLY LABOR REVIEW for June, 1920 (pp. 184–186), of the enactment of a law providing for the retirement of employees in the classified civil service of the United States (act of May 22, 1920, 41 Stat. 614, effective August 20, 1920). Experience under the law developed the necessity for the maintenance of certain records by the various departments, the establishment of rules for crediting and reporting deductions and computing interest, and other procedural matter. This need was met by an act of February 14, 1922 (Pub. No. 142), making additions and amendments to the original act.

Another amendment is interpretative, construing the expression "all employees in the classified civil service of the United States" as used in section 1 of the principal act. The term was declared "to include all persons who have been heretofore or who may hereafter be given a competitive status in the classified civil service, with or without competitive examination, by legislative enactment, or under the civil-service rules promulgated by the President, or by Executive orders covering groups of employees with their positions into the competitive classified service or authorizing the appointment of

individuals to positions within such service." This construction was made general and the expression "classified civil service" used in other acts of Congress is to receive this interpretation (act of March 27, 1922, Pub. No. 182).

The third amendment adds a seventh class to those into which employees are divided by section 2, class G, including charwomen, laborers, etc., classified or unclassified, who are employed on a regular annual basis at rates less than $600 per annum. Annuities for such employees are to be determined according to length of service, by the methods prescribed in the other schedules; but no annuity shall be granted to exceed the per centum nor the maximum provided for the respective periods of service (act of June 17, 1922, Pub. No. 243).

It will be noted that this amendment includes unclassified as well as classified employees, in which respect it varies the coverage of the original act, which was limited to the "classified civil service." It is, of course, within the power of Congress to make such inclusions and exclusions as it may determine, and the act also authorized the President to extend by Executive order, upon recommendation of the Civil Service Commission, the scope of the act to include employees or groups of employees in the civil service of the United States not classified at the time of the passage of the act. In accordance with this authority the President had, just prior to the foregoing enactment, issued an Executive order (June 7, 1922) extending the act to include unclassified laborers in all cities and establishments or offices in which appointments are made under labor regulations approved by the President; unclassified laborers in all offices in which appointments are made from subclerical or other registers from the civil service; and unclassified laborers who have been transferred from classified positions. This order does not extend to unclassified laborers in any part of the service in which classified employees have been excluded by Executive order, nor does it apply to employees whose basic salary or pay is less than $600 per annum.

It will be noted that this order and the amendment of June 17 alike cover unclassified employees and laborers, but have distinct coverages, as delimited by the salary basis, i. e., above or below $600.

Another amendment arose out of the situation developed by the discharge of a number of employees, in the navy yard principally, a reduction in numbers leading to the dismissal of a number of persons, some of them advanced in years and of long periods of service. However, they had not reached the time and age where they were eligible to any benefits under the law as it stood. An amendment of September 22, 1922 (Pub. No. 363), provides that an employee within the terms of the act of May 22, 1920, who is 55 years of age or over and has served for not less than 15 years, on involuntary separation from the service prior to the retirement age through no fault of his own, shall be entitled to an annuity certificate. This certificate will enable him to receive retirement benefits on the attainment of full retirement age the same as if he had remained in service until that date, the deductions from his pay to remain in the fund the same as if he had continued in the service.

If immediate benefits are desired, provision is made for their payment in reduced amounts varying according to the number of years intervening between present age and the age fixed for retirement.

Former employees discharged since August 20, 1920, and meeting the conditions of this amendment, are entitled to its benefits, but if they have withdrawn the deductions made from their salaries they must be restored with interest compounded at the rate of 4 per cent.

The amendment also provides for cases of employees continuing in service without the necessary approval of the Civil Service Commission and of those who have been reemployed subject to retirement, granting them credit for service at the regular salary paid during the time of such continued or renewed service, but declaring them not entitled to annuity covering the same period.

Industrial Relations Law of Colorado.

THE Colorado Industrial Commission reports briefly its activities for the year ending November 30, 1921, as regards actual industrial disputes.[1] The law giving jurisdiction to the commission over disputes between employer and employees as to wages and hours was amended last year, the amendments becoming effective April 4, 1921. One amendment provides for a mandatory writ compelling obedience to the law, but after hearing and final award by the commission the writ is no longer in force, so that it is not so drastic as appears at first reading. This writ was made use of by the commission during the year when the miners employed by a coal company refused to maintain the status quo during the consideration of a dispute, the officials of the United Mine Workers of America having encouraged disregard of the order of the commission. A mandatory writ was thereupon issued by a district court of the State "and served upon a large number of employees and upon officials of said union. The provisions of the writ were obeyed by both employer and employees."

Several pages are devoted to an epitomized statement of facts relating to some 250 or 300 cases passed upon by the commission during the year.

Regulation of Wage Scale by Court of Industrial Relations of Kansas.

THE Supreme Court of Kansas on June 10, 1922, rendered a decision in the case, Court of Industrial Relations *v.* Charles Wolff Packing Company (207 Pac. 806), which was a continuation of an original proceeding in which a decision was rendered on October 8, 1921. This earlier decision was noted, under the same heading as above, in the MONTHLY LABOR REVIEW for January, 1922 (pp. 194, 195). As there stated, the court of industrial relations had established a scale of wages for the packing company, and the proceeding was for a writ of mandamus to compel the acceptance by the company of the scale of wages fixed. The earlier decision was as to the applicability of the law to the case in hand, and the power of the court to act, the judgment being in the affirmative.

A commissioner had been appointed to take evidence in the case and make findings of fact and conclusions of law. This commissioner

[1] Colorado. Industrial Commission. Fifth annual report, Jan. 1, 1920, to Dec. 1, 1921. [Denver, 1921.]

found that the plant was a comparatively small one, employing about 300 workmen, and dependent upon an irregular local market for the animals to be slaughtered; also that the establishment was not in and of itself an essential factor in the actual supply of food to the State. However, it was of that class of establishments over which the court had jurisdiction. An examination of the specific orders of the court in connection with the determination made for the adjustment of the controversy between employers and employees developed the fact that of the 19 paragraphs, serially numbered, embodying as many points under consideration, 9 were unenforceable because covering subject matter not properly before the court. The actual points involved in the controversy were wages and hours, and although the entire contract of the workers was before the court, it was decided that a number of the elements involved had not come before it in such manner as to give it authority to make rulings thereon. It was therefore held that paragraphs 1, 5, 6, 7, 8, 10, 12, 13, and 16 were outside the purview of the court and unenforceable. These embraced a declaration of the principle of open shop, advance notice of purpose not to operate on any succeeding day, advance notice of changing hours of beginning work, the operation of the seniority rule, the subject of rules and regulations generally, the employment of a woman to have charge of toilets and dressing rooms for woman workers, a limitation on the hours of labor of women, and the establishment of a lunch room. The decision did not go so far as to pronounce all or any of these subjects outside the power of the court's action, but merely found that the points had not been submitted to inquiry, and that no jurisdiction had been acquired in the proceedings under consideration.

It appeared that the plant was operating at the time at a loss, and the question was raised as to the power of the court to make an order increasing the wages of employees in the face of such a fact. The determination of wages in an industry was distinguished from the fixing of rates of public utilities. It was conceded that in the latter case no rate can be decreased when the business of the utility is being conducted at a loss, though prudently and efficiently managed.

> But rates and wages are not the same. Rates are compensation paid by those who desire the services of public-service corporations for the services rendered by such corporations. Wages, for the purposes now under discussion, are that part of the cost of the finished product given to those who perform service in its production.
>
> The operators of a packing plant can not by law be compelled to sell the finished product of their plants at a price that will not allow them a fair return upon the investment, but that does not say that those operating the packing plant can not be compelled by law to pay a living wage to their employees, notwithstanding the fact that the plant is being operated at a loss. An industry of any kind that can not be operated except at the sacrifice of its employees ought to quit business. An industry ought not be permitted to recoup its losses out of the wages of its employees where those employees are in such a condition that they can not prevent it.

The contention that a man unwilling to work for the wages offered is at liberty to seek employment elsewhere was then noted, and while conceding the legal validity of the contention it was pointed out that economic conditions sometimes render such freedom of action valueless.

> Many a working man can not quit when he desires so to do. He must continue to work although his wages are not sufficient to properly feed and clothe himself and his family and educate his children. Public welfare demands that all industries that

provide food, clothing, fuel, and transportation shall continue to operate because without their operation suffering must result; but public welfare likewise demands that the workingman engaged in the production of the things that minister to the comfort of all must be paid such compensation for his services as will enable him to live in the manner described in the court of industrial relations act.

Possible reasons why the plant was operating at a loss were then considered, but no attempt was made to solve the question involved, that being the function of the management of the business rather than of the court. The loss should not be put on the employees "if its employees are thereby compelled to work for less than living wages." Unsuitable location or improper management are matters of correction by the company, but recoupment of losses caused by either of these matters ought not to be brought about by laying a burden on the workingman to labor for less than a living wage.

A peremptory writ of mandamus was directed to issue to compel the company to put into effect the portions of the order not nullified by this finding.

Two judges dissented on the ground that there was no emergency necessitating the application of the law to the case in hand, the controversy in this instance not being such as actually to interfere with the public welfare, in the absence of which "public interest does not attach to the conduct of its business, and the powers conferred by the statute are not called into action."

Homes for Railroad Employees in Argentina.[1]

THE Argentine law of April 16, 1919,[2] providing for a national retirement and pension fund for employees on Government-controlled railroads, was amended by the law of October 13, 1921, in order to make a portion of the fund available for loans to employees who wish to buy homes. Up to 40 per cent of the fund may be loaned to employees who are covered by the act and who have been in the employ of the company for at least 10 years at a rate not to exceed 1 per cent above the current rate on national bonds. These loans are to be secured by mortgages and made in combination with a temporary life insurance for the decreasing amount of the debt.

When the value of the property does not exceed 6,000 pesos national currency ($2,548, par) the loan may be made up to the full value of the property. Up to 90 per cent of the value of the property may be loaned when such value is from 6,000 to 10,000 pesos national currency ($2,547 to $4,245, par). On property worth more than 10,000 pesos not more than 80 per cent may be loaned. The management of the fund may fix the rate of interest and the amount and the duration of the loan (within a maximum of 30 years), according to the taxable value of the property and the amount of the wages, with the special object in view of encouraging the owning of small dwellings.

If the recipient of such a loan dies, the amount of his life insurance is to be applied to the payment of the loan, interest, and expenses.

[1] Argentina. Crónica Mensual del Departamento Nacional del Trabajo, Buenos Aires, January, 1922, p. 792.

[2] Summarized in the MONTHLY LABOR REVIEW for April, 1920, pp. 206–209.

If the borrower is retired on an old-age pension the fund may retain the necessary amounts from his pension for making the monthly payments on the loan and the insurance premium. The property on which these loans are made is not subject to attachment during the life of the borrower, his wife, or minor children. The borrower may not sell, mortgage, rent, or give away the property without the consent of the directorate until the loan has been repaid.

Labor Legislation in Greece.[1]

THE Greek National Assembly has recently passed a law amending and adding to former labor legislation regarding working conditions in factories and other establishments, child labor and Sunday rest for certain workers.

Article 1 of the law provides that manufacturers, merchants, and employers generally or directors and administrators of societies are obliged to keep their factories, workshops, and stores, as well as the machines, tools, etc., so far as the nature of the enterprise will permit, in a condition which will guarantee those who work there against danger to their lives, health, and general safety.

This article is extended to include owners of shipyards, chemical laboratories, transportation and carting of goods, theaters, public entertainments of all kinds, and public and private offices.

The penalties for failure to comply with the regulations are augmented and the procedure amplified in order to protect the working class more effectively. If the safety commission decides that a workshop does not fulfill the conditions as to healthfulness required by the law, the authorities can order it closed. In this event the proprietor has the right to dispossess a local tenant in spite of the rent moratorium. Cases reported by a labor inspector must be entered in the correctional court within 10 days.

It is forbidden to employ children under 14 years of age unless they each possess a certificate showing that they have completed their elementary education. House servants are not included in this regulation, but a law governing their education is contemplated.

Finally, the law recognizes the right of workers in hair-dressing establishments to Sunday rest and provides that by a system of rotation only one-quarter of these establishments shall remain open on each Sunday from 9 o'clock in the morning until midday.

[1] Journal de la Bourse, Athens, July 10 (23), 1922.

LABOR ORGANIZATIONS.

Membership of International Federation of Employees in Public Services.[1]

THE total membership of the International Federation of Employees in Public Services was approximately 482,000, according to that organization's report for 1921. Although there was a decrease in members in some affiliated bodies, the total membership was greater than in the preceding year, the increase being largely due to the accession of the Netherlands organization, representing nursing staffs and employees in sanitary institutions, and the Swiss Union of State and Communal Employees.

The following table shows the federation's affiliated membership in eight different years:

MEMBERSHIP OF NATIONAL ORGANIZATIONS AFFILIATED TO INTERNATIONAL FEDERATION OF EMPLOYEES IN PUBLIC SERVICES, BY YEARS, 1908 TO 1913 AND 1920 AND 1921.

Country.	1908	1909	1910	1911	1912	1913	1920	1921
Bohemia	.....	504	1,024	1,176	1,605	2,566	.....	.....
Belgium	.....	.....	.....	.....	3,098	3,500	12,200	11,523
Denmark (workers in lighting undertakings)	.....	.....	2,200	2,200	3,364	3,500	.....	.....
Denmark (communal workers)	.....	2,052	2,325	2,244	2,310	2,413	8,057	8,572
Germany	29,316	32,488	29,288	47,376	71,083	53,925	300,000	295,000
England	.....	.....	.....	.....	.....	25,563	80,000	80,000
France	.....	.....	.....	.....	.....	12,000	25,000	38,000
Netherlands (State workers)	.....	.....	.....	.....	.....	.....	2,534	.....
Netherlands (communal workers)	4,307	4,055	4,067	4,950	5,471	6,687	14,550	15,233
Netherlands (nursing staff in sanitary institutions)	.....	.....	.....	.....	.....	.....	.....	1,441
Luxemburg	81	.....	78	83	98	95	.....	.....
Norway (communal workers)	.....	.....	.....	.....	.....	.....	3,280	4,200
Norway (railway staff)	.....	.....	.....	.....	.....	.....	1,200	1,252
Sweden	4,192	2,272	1,218	1,602	2,004	2,673	14,915	16,500
Switzerland	1,966	2,553	2,534	2,655	2,992	2,315	.....	10,500

Reports of Officers of International Typographical Union, 1921–22.

THE August, 1922, issue of the Typographical Journal contains a supplement giving the reports of the several officers of the International Typographical Union for the year ended May 31, 1922. According to the report of the president, for the past year the union has been engaged in the most serious struggle of its existence, the condition being one of "widespread conflict covering practically every State and Province of the United States and Canada."

Hours of labor.—In 1921, 298 typographical unions with a membership of 25,873 and 6 mailers' unions with a membership of 1,002—a total of 304 unions and 26,875 members—had succeeded in establishing the 44-hour week. By the end of 1922 the number had increased to 513 typographical unions with 41,704 members and 8 mailers' unions with 1,087 members—a total of 521 unions and 42,791 members.

[1] International Labor Office. Industrial and Labor Information, Geneva, Aug. 25, 1922, p. 3.

At the end of May, 1922, 7,050 men (including 951 apprentices), in 169 cities, were still on strike for the 44-hour week.

Wages.—It is stated that "contrary to the experience of most other trades," the typographical unions have been quite successful in maintaining the wage level. Of 386 unions reporting, in 100 the scale of wages during the year ending May 30, 1922, was increased, in 209 the existing scale was maintained, and in 77 the scale was lowered.

On the basis of the assessment for the old-age pension and mortuary fund maintained by the international union, it is estimated that the average earnings per member have increased, since 1910, as follows:

Year ending May 31—	Average per member.
1910	$953.00
1911	974.00
1912	992.00
1913	1,023.00
1914	1,042.00
1915	1,026.51
1916	1,041.18
1917	1,086.43
1918	1,145.15
1919	1,264.88
1920	1,615.25
1921	1,909.03
1922	1,795.44

Arbitration of differences.—The following statement of the provision made for arbitration shows, as the report points out, "a widespread desire for some system of peaceful settlement of such controversies as may arise":

Contracts providing for—	Number.
Arbitration under international arbitration agreement—	
All differences	41
Differences arising under contract only	17
Arbitration under local agreement—	
All differences	[1] 18
Differences arising under contract only	[2] 320
Contracts making no provision for arbitration	[3] 126

In 94 other cases the provision for arbitration contained in previous contracts was discontinued.

Benefits.—During the year ended May 31, 1922, death benefits were paid in 818 cases, the total so paid amounting to $344,702.28, or an average of $421.40 per case. During the 10-year period ending on the same date an aggregate of $2,997,313.46 has been paid in death benefits.

The International Typographical Union maintains an old-age pension fund from which pensions of $8 per week are granted to two classes of members:

(1) Members not less than 60 years of age who have been in continuous good standing for a period of 20 years and who find it impossible to secure sustaining employment.

(2) Members who are wholly incapacitated for work, who have been continuous active members for 20 years, and whose applications for admission to the [Union Printers'] Home have been disapproved because their afflictions are such as to render them ineligible for admission to that institution.

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[1] Including 3 contracts in which provision is made for procedure under international arbitration agreement but the parties to which hold no international arbitration contract.

[2] Including 14 contracts in which provision is made for procedure under international arbitration agreement but the parties to which hold no international arbitration contract.

[3] Including 31 contracts the newspapers party to which hold an international arbitration agreement, although the contract itself makes no provision for arbitration.

During the year under discussion the pension payments amounted to $680,224. There were at the end of the year 1,869 members on the pension roll. During the 10-year period ending May 31, 1922, the total amount paid to pensioners was $4,200,185.

All-Australian Trades Union Congress.[1]

THE All-Australian Trades Union Congress convened in Melbourne from June 26 to 30, 1922. Socialization of industry, which for some time past has created dissension in the Australian labor ranks, came up for discussion in the early part of the conference, and a resolution reaffirming the policy of the congress held in June, 1921, in favor of such socialization was adopted by a vote of 93 to 54.

The subcommittee which had been appointed to investigate the situation as regards wages and hours submitted a scheme for their adjustment which should take the place of the existing machinery provided by the arbitration court. The scheme provided for—

(*a*) A Commonwealth council of industrial representatives; (*b*) six State councils; (*c*) State industrial tribunals; (*d*) local boards and works councils; and (*e*) an appeal tribunal. It is proposed that these councils and tribunals shall deal with the whole question of wages, disputes, Federal awards, hours, organization, industrial hygiene, and safety appliances, and inquire into trade and finance and foreign markets. A plan was also adopted relative to the forming and financing of a chain of labor papers, the first one to be issued, in all probability, in Sydney.

Annual Convention of Canadian Trades and Labor Congress.[2]

THE thirty-eighth annual convention of the Trades and Labor Congress of Canada was held at Montreal August 21 to 26, 1922. There were 404 delegates in attendance.

The report of the special committee on immigration was adopted, demanding the exclusion of all orientals; requesting the closest cooperation between the employment services of Canada and Great Britain; indorsing the proposed formation of a Dominion advisory council of immigration; registering opposition to all bonuses to private immigration agencies; and recommending that "land settlement and colonization schemes should be made available to citizens and others already located in Canada."

Sixty-eight resolutions were presented to the convention. Among the measures passed were the following: That the incorporation of trade unions should not be made compulsory; favoring a 48-hour week for all workers; pledging full moral support to the printing trade union in their endeavor to secure a 44-hour week; instructing the executive council to continue its effort to have legislation enacted on health and unemployment insurance; in favor of a "new and modern workmen's compensation act" for Quebec; recommending

[1] The Labor Call, Melbourne, July 6, 1922.
[2] Canadian Congress Journal, September, 1922, pp. 475-485, 500, 501.

that the Ontario workmen's compensation act be amended to cover additional accidents and diseases and to provide 100 per cent compensation for all injured workmen; requesting the immediate passage of old-age pension legislation; reiterating a former declaration favoring joint industrial councils (Whitley plan) for the Canadian civil service; favoring direct taxation and "the fullest development of the cooperative movement on the Rochdale plan"; and instructing the executive council to try to secure legislation facilitating the incorporation of cooperative societies.

The former president, Mr. Tom Moore, was reelected. It was decided to hold the 1923 convention in Vancouver, British Columbia.

Report of the Danish Federation of Trade-Unions.

ACCORDING to the report of the Danish Federation of Trade Unions for the period April 1, 1921, to March 31, 1922, the federation had on December 31, 1921, 2,260 branches with 244,372 members, of whom 200,304 were men and 44,068 women. Compared with the figures for December 31, 1920, this is a decrease of 34,883 members and 200 branches. The decrease was expected after the unusual increase of the previous years. The agricultural union lost the largest number, 10,000, and the Danish Workmen's Union about 7,000 members. Three other unions with a total membership of 6,499 withdrew. The membership of organizations outside the federation decreased from 83,108 to 78,702 members during the year. However, if the membership of the three unions mentioned above is not included, the actual decrease was 10,939 members.

The report also refers to the general lockout which occurred in the spring of 1922 and to new legislation affecting conciliation and unemployment, short accounts of which have appeared in previous issues of the MONTHLY LABOR REVIEW.[1]

During 1921 the arbitration court had 117 cases under consideration. In 59 cases an award was made, in 40 cases conciliation was effected, and 18 cases were withdrawn. The employers brought up 40 cases and the workers 77. The Federation of Trade Unions was involved in 78 cases and outside organizations in 39 cases.

Omitting the Danish Workmen's Union (*Dansk Arbejdsmands Forbund*), there have been involved in wage change movements 38 unions with a membership of 119,116, of whom 85,661 were men and 33,455 women. Of this number 103,598 members were affected by wage changes. In the case of 68,791 members wage changes were effected without any dispute, and 5,500 persons, of whom 5,000 were men and 500 women, were involved in strikes, while nearly one-third of those affected by wage changes were involved in lockouts.

Outside of the Federation of Trade Unions 20 organizations with a total membership of 60,408 (49,266 men and 11,142 women) were involved in disputes. Of this number wage changes affected 31,123 workers (28,032 men and 3,091 women). There were 26,678 workers not involved in labor disputes.

[1] Issues of July, 1922 (pp. 176 and 177 and 162–164), and May, 1922 (pp. 202 and 203).

British Trades Union Congress.

THE annual meeting of the British Trades Union Congress was held at Southport, September 4 to 9, inclusive.[1] There were in attendance 716 delegates representing 157 organizations with a membership of 5,065,170, as compared with 810 delegates from 171 organizations carrying a total membership of 6,390,523 in 1921. The decrease in the number of organizations is due mainly to amalgamations. The fall of 20.7 per cent in the total membership is more serious, since it represents an actual decrease of individual members. While every group of trades shows a diminished membership, the groups with the greatest losses are as follows: General labor, 470,103; metal, engineering, and shipbuilding group, 187,960; and the railway group, 151,402.

The congress rejected by a large vote the scheme proposed by the general council for exercising some measure of control over individual action of affiliated trade-unions in industrial disputes. It decided to assume joint financial responsibility with the Labor Party for the publication of the Daily Herald, and increased the annual affiliation fee from 1d. (2 cents, par) to 3d. (6 cents, par) to meet the additional expense. This action will give the labor movement a daily paper of its own.

The usual resolution demanding that the Government devise national schemes of work for unemployed workers and provide adequate maintenance for those for whom no work can be found was adopted. In this connection a revision of the treaty of Versailles and the resumption of trade with Russia as two means of remedying the present state of unemployment were called for. Other resolutions adopted by the congress (1) emphasized the need of an immediate settlement of the reparations problem; (2) urged the admission of Germany and Russia to the League of Nations on the same basis as other members of the league; (3) advised Government ratification of the "maternity" and "hours" conventions of the Washington International Labor Conference; (4) approved the national guild movement; (5) demanded the reestablishment of a wages board for agriculture, adequate housing schemes, and the extension of the rent restrictions act after June, 1923; (6) protested against the recommendations of the Cave committee on trade boards, against the Government's plan for economy in education, and against employees' superannuation schemes being conditional upon nonmembership in unions; (7) declared in favor of the 44-hour week and for Government-paid pensions for mothers.

[1] Ministry of Labor Gazette, London, September, 1922, p. 362.

Status of British Trade-Unions, 1919 and 1920.

ACCORDING to the Ministry of Labor Gazette for August, 1922 (p. 322), the Registry of Friendly Societies has recently issued a statistical summary [1] of the status of the British registered trade-unions. In the table which follows data for 1920 as compared with those for 1919 are shown:

MEMBERSHIP, INCOME, EXPENDITURE, ETC., OF BRITISH REGISTERED TRADE-UNIONS IN 1919 AND 1920.

[Pound at par=$4.8665.]

Item.	1919.	1920.
Number of unions on the register at end of year	609	620
Membership at end of year	6,692,671	7,091,721
Income:		
From members	£8,648,735	£11,411,474
From Ministry of Labor (unemployment insurance)	33,518	315,689
From other sources	1,041,002	1,235,375
Expenditure:		
Unemployed, traveling, and emigration benefit	972,689	1,609,037
Dispute benefit	2,179,549	3,275,087
Sick and accident benefit	693,963	752,808
Funeral benefit	311,363	303,293
Other benefits (including superannuation and grants to members)	654,615	718,967
Payments from political fund [1]	112,639	185,869
Payments to federations, grants to other societies, etc	662,955	[2] 1,685,169
Management and other expenses	3,098,104	4,352,723
Total funds:		
At beginning of year	15,007,862	15,909,440
At end of year	16,045,240	[2] 15,989,025

[1] By the provisions of the trade-union act, 1913, trade-unions, whether registered or unregistered, must not apply their funds to political objects, except under rules approved by the chief registrar of Friendly Societies. These statistics relate, however, to registered trade-unions only.

[2] This sum is stated to include £817,000, funds transferred to the Amalgamated Engineering Union, but not brought into account in the return of that union for 1920.

There were also on the trade-union register at the close of 1920 106 employers' associations having a membership of 54,000, an income of £128,000 ($622,912, par), expenditure of £108,000 ($525,582, par), and funds of £115,000 ($559,647.50, par).

[1] Registered trade-unions. Statistical summary showing the operations of the years 1919–20.

STRIKES AND LOCKOUTS.

Strikes and Lockouts in the United States, April to June, 1922.

ACCORDING to information received by the United States Bureau of Labor Statistics, 245 labor disputes resulting in strikes and lockouts occurred in this country during the second quarter of 1922. Inasmuch as many reports do not reach the bureau until several months after the strikes occur, the number of strikes occurring during the quarter was probably somewhat larger than the above figure. Complete data relative to these strikes have not been received by the bureau and it has not been possible to verify all that have been received. The figures in the following tables should therefore be regarded as only an advance statement and not be accepted as final.

NUMBER OF DISPUTES BEGINNING IN EACH MONTH, JANUARY TO JUNE, INCLUSIVE, 1921 AND 1922.

Year.	January.	February.	March.	April.	May.	June.	Month not stated.	Total.
1921	228	168	181	284	566	146	34	1,607
1922	115	84	72	76	96	53	42	538

The most important industrial disturbance of the quarter was the strikes of the anthracite and bituminous miners, beginning April 1, a full account of which will be found on pages 1 to 22 of this issue of the MONTHLY LABOR REVIEW.

Next in importance to the coal strike, from the standpoint of numbers involved, was the dispute of the clothing workers in New York City, where about 50,000 quit work in their "campaign" against nonunion shops.

The strike of 6,000 shoe workers in Cincinnati involved 20 factories. In Cleveland 5,000 garment workers struck, and in Rochester 4,000 shoe workers.

The data in the following tables relate to the 245 disputes reported to have occurred in the three months under consideration. A few of these disputes, which occurred during the quarter but in which the exact month was not stated, appear in a group by themselves.

STATES IN WHICH THREE OR MORE DISPUTES WERE REPORTED AS OCCURRING IN THE SECOND QUARTER OF 1922.

State.	Number of disputes.				
	April.	May.	June.	Month not stated.	Total.
New York	5	14	11	2	32
New Jersey	9	15	3	2	29
Massachusetts	6	15	4	1	26
Pennsylvania	2	9	4	4	19
Ohio	3	8	4	.....	15
Illinois	6	6	1	1	14
California	6	4	2	1	13
Wisconsin	7	2	2	1	12
Connecticut	2	1	7	.....	10
Washington	3	4	1	1	9
Missouri	1	5	.....	1	7
Rhode Island	1	3	2	1	7
Indiana	2	1	1	1	5
Iowa	3	.....	2	.....	5
West Virginia	1	2	1	.....	4
Louisiana	.....	1	1	1	3
Maine	1	1	1	.....	3
Michigan	2	1	.....	.....	3
Minnesota	.....	2	1	.....	3
14 other States	13	2	4	3	22
Interstate	3	.....	1	.....	4
Total	76	96	53	20	245

Of these disputes, with the exception of 4 interstate strikes, 177 occurred east of the Mississippi River and north of the Ohio and Potomac Rivers; 49 occurred west of the Mississippi River; and 15 south of the Ohio and Potomac Rivers and east of the Mississippi River.

Of the 4 interstate strikes, 1 occurred west and 2 east of the Mississippi River, and 1, that of the bituminous coal miners, embraced both geographical sections.

As to cities, New York City had the largest number of disturbances, 15, while Boston had 7, Perth Amboy, N. J., 6, Chicago 5, and San Francisco 5.

As to sex, the distribution was as follows: Males, 152 disputes; females, 4; males and females, 47; sex not reported, 42.

The industries in which three or more disputes were reported are shown in the table which follows:

NUMBER OF DISPUTES IN SPECIFIED INDUSTRIES REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1922.

Industry or occupation.	April.	May.	June.	Month not stated.	Total.
Building trades	14	23	7	7	51
Clothing	10	14	20	3	47
Metal trades	11	10	2	2	25
Textile	7	7	6		20
Bakers	3	9		1	13
Hotel and restaurant employees	1	3	4		8
Printing and publishing	2	2	1	1	6
Mining	3	3			6
Lumber, timber, and millwork	1	4		1	6
Paper	2	2	1	1	6
Brewery workers	6				6
Street railways		3	2	1	6
Iron and steel	1	1	2		4
Longshoremen	3		1		4
Electrical workers	2	1	1		4
Tobacco	1		1	1	3
Steamboat	1	2			3
Street, sewer and park			2	1	3
Miscellaneous	8	12	3	1	24
Total	76	96	53	20	245

In 189 disputes the employees were reported as connected with unions; in 6 they were not so connected; in 2 disputes both union and nonunion employees were involved; in 1 they became unionized after the strike began; and in 47 disputes the question of union affiliation was not reported.

In 140 disputes only 1 employer was concerned in each disturbance; in 8 disputes, 2 employers; in 3 disputes, 3 employers; in 3 disputes, 4 employers; in 2 disputes, 5 employers; in 18 disputes, more than 5 employers; and in 71 disputes the number of employers was not reported.

In the 177 disputes for which the number of persons on strike was reported there were 717,532 strikers, an average of 4,054 per strike. In 18 strikes in which the number involved was 1,000 or more, the strikers numbered 692,081, an average of 38,449 per strike. In the 159 strikes involving less than 1,000 persons each, there were 25,451 strikers, an average of 160 per strike.

By months the figures are as follows: April, 622,890 strikers in 64 strikes, average 9,733, of whom 9,084 were in 56 strikes of less than 1,000 persons each, average 162; May, 23,639 strikers in 71 strikes, average 333 of whom 10,239 were in 66 strikes of less than 1,000 persons each, average 155; June, 70,683 strikers in 38 strikes, average 1,860, of whom 5,808 were in 33 strikes of less than 1,000 persons each, average 176.

The following table shows the causes of the disturbances in so far as reported. In about 60 per cent of the disputes wages was a prominent question; the open and closed shop, union recognition, and working conditions were disputed points of less prominence.

PRINCIPAL CAUSES OF DISPUTES REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1922.

Cause.	Number of disputes.				
	April.	May.	June.	Month not stated.	Total.
Increase of wages	5	26	9	4	44
Decrease of wages	26	32	12	7	77
Nonpayment of wages	.....	1	1	.....	2
Increase of hours	2	.....	1	.....	3
Decrease of hours	1	.....	2	.....	3
Increase of wages and decrease of hours	3	3	2	.....	8
Decrease of wages and increase of hours	4	.....	1	.....	5
Recognition of union	2	4	6	1	13
Recognition and wages	4	1	.....	.....	5
General conditions	2	5	4	.....	11
Conditions and wages	3	.....	.....	.....	3
Discharge of employees	1	.....	2	.....	3
Employment of nonunion men	2	2	.....	.....	4
Discrimination	.....	1	1	.....	2
Open or closed shop	9	5	4	.....	18
In regard to agreement	4	7	3	.....	14
New agreement	1	3	1	3	8
Jurisdiction	.....	1	1	.....	2
Not reported	3	3	1	4	11
Miscellaneous	4	2	2	1	9
Total	76	96	53	20	245

It is often difficult to state exactly when a strike terminates, since many strikes end without any formal vote on the part of the strikers. The bureau has information of the ending of 159 disputes during the quarter.

The following table shows the number of disputes ending in the first six months of 1921 and 1922.

NUMBER OF DISPUTES ENDING DURING THE FIRST SIX MONTHS OF 1921 AND 1922.

Year.	January.	February.	March.	April.	May.	June.	Month not stated.	Total.
1921	57	53	95	100	219	167	123	814
1922	37	25	29	36	70	36	50	283

The table following shows the results of disputes ending during the second quarter of 1922.

RESULTS OF DISPUTES ENDING DURING THE SECOND QUARTER OF 1922.

Result.	Number of disputes.				
	April.	May.	June.	Month not stated.	Total.
In favor of employers	15	25	5	16	61
In favor of employees	11	24	19	1	55
Compromised	9	14	8	.....	31
Employees returned pending arbitration	.....	1	.....	.....	1
Not reported	1	6	4	.....	11
Total	36	70	36	17	159

The next table gives the duration of the disputes ending in the second quarter of 1922.

DURATION OF DISPUTES ENDING DURING THE SECOND QUARTER OF 1922, OF NUMBER REPORTING.

Duration.	Number of disputes.				
	April.	May.	June.	Month not stated.	Total.
1 day or less	2	5	1	.....	8
2 days	2	3	2	.....	7
3 days	1	1	1	.....	3
4 days	2	2	1	.....	5
5 to 7 days	7	7	4	.....	18
8 to 14 days	2	6	6	.....	14
15 to 21 days	1	7	3	.....	11
22 to 29 days	1	2	2	.....	5
30 to 90 days	11	12	9	.....	32
Over 90 days	4	9	3	.....	16
Not reported	3	16	4	17	40
Total	36	70	36	17	159

The number of days lost in the disputes ending in the second quarter, for the 119 reporting, was 4,167. The average duration of these was about 35 days. The average duration of the disputes lasting less than 90 days was 22 days.

By months the record is as follows: April, 1,220 days lost, average 37; May, 1,933 days lost, average 36; June, 1,014 days lost, average 32.

Of the 119 disputes ending during the quarter and reporting the duration, 106 reported the number of employees involved, aggregating 49,886, an average of 471.

Of the 159 disputes reported as ending during the quarter, 129 reported the number of employees involved, aggregating 52,414, an average of 406.

CONCILIATION AND ARBITRATION.

Conciliation Work of the Department of Labor in September, 1922.

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION.

THE Secretary of Labor, through the Division of Conciliation, exercised his good offices in connection with 17 labor disputes, exclusive of the coal miners', during September, 1922. These disputes affected a total of 3,500 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly or indirectly affected.

On October 1, 1922, there were 35 strikes before the department for settlement and in addition 14 controversies which had not reached the strike stage. Total number of cases pending, 49.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, SEPTEMBER, 1922.

Company or industry and location.	Nature of controversy.	Craft concerned.	Cause of dispute.	Present status.
Contractors, St. Louis, Mo.	Threatened strike.	Carpenters and bricklayers.	Jurisdictional cork cutting.	Adjusted.
Bakery salesmen, Portland, Oreg.	Controversy.	Bakery salesmen.	Wages and union recognition.	Adjusted.
Hod carriers, Trenton, N. J.	Strike.	Hod carriers.	Asked for rate of 87½ cents per hour and 8-hour day.	Pending.
Shott Clothing Co., Red Bank, N. J.	do.	Clothing workers.		Do.
Granite quarry workers, New Hampshire and Vermont.	do.	Quarry workers.		Do.
Davis Coal & Coke Co., Tucker County, W. Va.	Controversy.	Miners.		Do.
Leather workers, Chicago, Ill.	Threatened strike.	Leather workers.	Working conditions.	Do.
Consolidated Coal Co., Allegany County, Md.	Controversy.	Miners.		Do.
Sien mills, Van Raalte, Saratoga Springs, N. Y.	Threatened strike.	Textile workers.		Do.
Jeffs & Co. (Inc.), New York City.	do.	Leather workers.	Unionization in shop	Adjusted.
National Metal Stamping Co., Streator, Ill.	do.	Metal workers.	Open shop; recognition.	Pending.
Brick and tile plants, Streator, Ill.	do.	Brick and tile workers.	do.	Do.
Western Glass Co., Streator, Ill.	do.	Glass workers.	Working conditions.	Do.
Crane Bros., Kingston, Pa.	do.	Silk throwers.	Asked 13 per cent raise.	Adjusted.
Dorranceton silk works, Kingston, Pa.	do.	Silk workers.		Unclassified.
Paper mills, Monroe, Mich.	do.	Paper-mill workers.	Changed conditions.	Do.
Clothing workers, Baltimore, Md.	do.	Clothing workers.	Asked increase of 20 per cent.	Pending.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, SEPTEMBER, 1922—Concluded.

Company or industry and location.	Terms of settlement.	Date of—		Workmen affected.	
		Beginning.	Ending.	Directly.	Indirectly.
		1922	1922		
Contractors, St. Louis, Mo.	All cork cut by power saw	Sept. 1	Sept. 8	150	450
Bakery salesmen, Portland, Oreg.	Increase allowed; open shop	July 27	Aug. 29	90	360
Hod carriers, Trenton, N. J.		Aug. 25		200	
Shott Clothing Co., Red Bank, N. J.		Sept. 13			
Granite quarry workers, New Hampshire and Vermont.		Aug. 31			
Davis Coal & Coke Co., Tucker County, W. Va.		Sept. —			
Leather workers, Chicago, Ill.		Sept. 19		40	20
Consolidated Coal Co., Allegany County, Md.		Sept. —			
Sien mills, Van Raalte, Saratoga Springs, N. Y.		Sept. 20			
Jeffs & Co. (Inc.), New York City	44 hours per week; union recognition.	Sept. 1	Sept. 21	40	10
National Metal Stamping Co., Streator, Ill.		do		80	4
Brick and tile plants, Streator, Ill.		Jan. 11		700	
Western Glass Co., Streator, Ill.		do			
Crane Bros., Kingston, Pa.	$1.50 raise allowed	Sept. 16	Sept. 30	278	28
Dorranceton silk works, Kingston, Pa.	Settled before commissioner's arrival.	Aug. —		150	
Paper mills, Monroe, Mich.	do			200	
Clothing workers, Baltimore, Md.				700	
Total				2,628	872

IMMIGRATION.

Statistics of Immigration for August, 1922.

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 during July and August, 1922. 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 October 4, 1922.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT, JULY AND AUGUST, 1922.

During—	Arrivals.					Departures.			
	Immigrant aliens admitted.	Non-immigrant aliens admitted.	United States citizens arrived.	Aliens debarred.	Total.	Emigrant aliens.	Non-emigrant aliens.	United States citizens.	Total.
July, 1922	41,241	12,001	22,279	1,191	76,712	14,738	16,096	53,069	83,903
August, 1922	42,735	12,298	31,407	1,537	87,977	10,448	9,051	19,499	38,998
Total	83,976	24,299	53,686	2,728	164,689	25,186	25,147	72,568	122,901

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JULY AND AUGUST, 1922, BY COUNTRIES.

Countries.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
Austria	840	1,528	32	77
Hungary	1,102	1,934	116	413
Belgium	242	548	24	145
Bulgaria	63	97	13	35
Czechoslovakia	2,294	4,760	275	967
Denmark	326	605	83	112
Finland	413	897	36	114
France, including Corsica	330	819	152	482
Germany	2,490	4,750	242	659
Greece	665	1,224	443	897
Italy, including Sicily and Sardinia	8,016	15,901	3,673	7,182
Netherlands	247	432	23	103
Norway	478	1,158	49	211
Poland	3,367	4,453	986	2,701
Portugal, including Cape Verde and Azores Islands	486	869	297	656
Rumania	1,231	2,677	163	435
Russia	1,406	3,311	494	1,260
Spain, including Canary and Balearic Islands	97	241	304	643
Sweden	996	2,112	70	229
Switzerland	278	633	58	166
Turkey in Europe	228	382	16	66
United Kingdom:				
England	1,704	3,610	369	1,657
Ireland	841	1,967	142	652
Scotland	1,068	2,097	46	273
Wales	81	147	5	12
Yugoslavia	956	1,743	277	794
Other Europe	116	217	23	42
Total Europe	30,361	59,112	8,411	20,983

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JULY AND AUGUST, 1922, BY COUNTRIES—Concluded.

Countries.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
China	438	797	472	813
Japan	371	836	256	545
India	25	46	8	29
Turkey in Asia	294	544	208	320
Other Asia	66	96	16	23
Total Asia	1,194	2,319	960	1,730
Africa	98	163	16	35
Australia, Tasmania, and New Zealand	118	179	47	93
Pacific Islands, not specified	6	21	1	3
British North America	4,978	9,696	318	633
Central America	135	230	48	120
Mexico	4,464	9,512	176	385
South America	306	625	121	332
West Indies	1,075	2,114	349	869
Other countries	.....	5	1	2
Grand total	42,735	83,976	10,448	25,186
Male	23,818	46,838	6,971	15,918
Female	18,917	37,138	3,477	9,268

TABLE 3.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JULY AND AUGUST, 1922, BY RACES OR PEOPLES.

Race or people.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
African (black)	516	1,174	111	339
Armenian	282	486	17	32
Bohemian and Moravian (Czech)	762	1,456	259	734
Bulgarian, Serbian, and Montenegrin	302	556	260	703
Chinese	306	634	464	794
Croatian and Slovenian	585	1,129	25	104
Cuban	119	180	66	184
Dalmatian, Bosnian, and Herzegovinian	108	136	27	64
Dutch and Flemish	460	919	61	248
East Indian	15	22	4	15
English	3,410	6,839	649	2,281
Finnish	321	688	50	144
French	1,332	2,601	213	624
German	4,165	8,092	304	801
Greek	829	1,492	458	914
Hebrew	4,167	8,253	53	177
Irish	1,530	3,255	136	618
Italian (north)	1,495	3,070	222	868
Italian (south)	6,562	12,992	3,473	6,357
Japanese	362	820	251	527
Korean	8	16	4	10
Lithuanian	181	415	269	809
Magyar	1,152	2,180	129	475
Mexican	4,392	9,342	150	336
Pacific Islander	1	7	.....	1
Polish	2,359	2,915	981	2,623
Portuguese	475	891	321	682
Rumanian	165	319	153	386
Russian	331	545	226	511
Ruthenian (Russniak)	84	127	2	9
Scandinavian (Norwegian, Danes, and Swedes)	2,010	4,366	235	620
Scotch	1,711	3,399	103	349
Slovak	1,166	2,560	21	234
Spanish	371	771	354	770
Spanish American	202	336	110	276
Syrian	154	317	172	281
Turkish	14	30	10	43
Welsh	100	167	7	19
West Indian (other than Cuban)	146	301	50	134
Other people	85	178	48	90
Total	42,735	83,976	10,448	25,186

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JULY AND AUGUST, BY OCCUPATIONS.

Occupation.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
Professional:				
Actors	90	170	6	47
Architects	17	33	3	8
Clergy	147	291	32	145
Editors	5	9	3	7
Electricians	113	208	8	20
Engineers (professional)	149	277	15	43
Lawyers	17	30	2	10
Literary persons	40	93	10	37
Musicians	82	168	16	45
Officials (Government)	47	80	27	56
Physicians	48	123	17	35
Sculptors and artists	25	34	10	22
Teachers	221	426	38	136
Other professional	266	458	46	162
Total	1,267	2,400	233	773
Skilled:				
Bakers	221	427	27	73
Barbers and hairdressers	173	341	46	93
Blacksmiths	163	329	15	38
Bookbinders	12	27	1	4
Brewers		2		
Butchers	152	318	25	73
Cabinetmakers	30	59	9	24
Carpenters and joiners	732	1,479	59	160
Cigarette makers	2	7		
Cigar makers	25	36	12	28
Cigar packers	1	2		
Clerks and accountants	1,134	2,219	156	478
Dressmakers	449	931	36	106
Engineers (locomotive, marine, and stationary)	635	741	14	39
Furriers and fur workers	25	38	1	5
Gardeners	56	135	7	26
Hat and cap makers	18	34	2	4
Iron and steel workers	121	257	8	27
Jewelers	19	42	9	14
Locksmiths	144	252		3
Machinists	236	424	38	127
Mariners	350	689	20	84
Masons	389	694	16	46
Mechanics (not specified)	312	627	37	98
Metal workers (other than iron, steel, and tin)	23	56		
Millers	17	31	2	6
Milliners	56	119	6	17
Miners	288	550	74	289
Painters and glaziers	176	294	21	54
Pattern makers	13	21	1	2
Photographers	28	54	1	11
Plasterers	25	50	3	4
Plumbers	46	83	4	12
Printers	41	78	7	23
Saddlers and harness makers	21	39		
Seamstresses	214	413	12	25
Shoemakers	416	792	62	143
Stokers	51	94	4	20
Stonecutters	22	41	1	6
Tailors	547	1,069	87	212
Tanners and curriers	9	22		2
Textile workers (not specified)	10	24		3
Tinners	31	50	3	5
Tobacco workers	2	2		
Upholsterers	19	26	1	3
Watch and clock makers	27	60	2	3
Weavers and spinners	125	263	38	97
Wheelwrights	4	5		
Woodworkers (not specified)	13	26	1	4
Other skilled	339	704	59	165
Total	7,962	15,076	927	2,656
Miscellaneous:				
Agents	65	140	10	33
Bankers	9	20	6	24
Draymen, hackmen, and teamsters	42	89	6	13

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, JULY AND AUGUST, BY OCCUPATIONS—Concluded.

Occupation.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
Miscellaneous—Concluded.				
Farm laborers	2,173	4,383	46	227
Farmers	1,035	1,971	273	515
Fishermen	55	125	3	6
Hotel keepers	7	27	1	4
Laborers	7,265	14,637	4,404	9,451
Manufacturers	25	40	6	21
Merchants and dealers	774	1,565	329	721
Servants	5,009	10,005	356	1,240
Other miscellaneous	1,485	2,675	384	885
Total	17,944	35,677	5,824	13,140
No occupation (including women and children)	15,562	30,823	3,464	8,617
Grand total	42,735	83,976	10,448	25,186

TABLE 5.—FUTURE PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED JULY AND AUGUST, 1922, BY STATES AND TERRITORIES.

State or Territory.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
Alabama	45	92	5	15
Alaska	33	47	8	17
Arizona	440	793	43	68
Arkansas	12	37	----	49
California	3,140	6,258	758	1,696
Colorado	122	300	46	66
Connecticut	865	1,713	272	606
Delaware	41	83	3	13
District of Columbia	144	254	32	102
Florida	227	402	91	335
Georgia	42	91	8	17
Hawaii	205	426	57	129
Idaho	38	99	1	27
Illinois	3,370	6,431	654	1,659
Indiana	419	709	61	151
Iowa	293	592	35	85
Kansas	146	243	13	39
Kentucky	76	142	11	23
Louisiana	85	170	38	102
Maine	397	894	13	48
Maryland	218	368	52	144
Massachusetts	2,748	5,366	766	2,079
Michigan	2,192	4,177	248	601
Minnesota	516	1,236	60	148
Mississippi	32	61	----	5
Missouri	334	682	73	177
Montana	127	255	18	56
Nebraska	152	323	26	67
Nevada	43	98	4	13
New Hampshire	262	431	10	26
New Jersey	2,408	4,482	568	1,286
New Mexico	71	133	16	26
New York	11,260	22,294	4,396	10,354
North Carolina	52	68	3	8
North Dakota	87	217	9	20
Ohio	1,743	3,464	382	1,000
Oklahoma	26	91	10	21
Oregon	277	543	52	114
Pennsylvania	3,843	7,256	914	2,380
Philippine Islands	----	1	----	5
Porto Rico	27	40	39	77
Rhode Island	418	816	172	300
South Carolina	8	14	3	4

TABLE 5.—FUTURE PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED JULY AND AUGUST, 1922, BY STATES AND TERRITORIES—Concluded.

State or Territory.	Immigrant.		Emigrant.	
	August, 1922.	July and August, 1922.	August, 1922.	July and August, 1922.
South Dakota	66	125	6	18
Tennessee	46	79	3	12
Texas	3,663	7,830	55	144
Utah	91	210	21	43
Vermont	134	261	2	19
Virginia	106	189	28	61
Virgin Islands	3	7	.....	.....
Washington	618	1,304	188	333
West Virginia	246	388	58	141
Wisconsin	727	1,285	111	241
Wyoming	51	106	6	22
Total	42,735	83,976	10,448	25,186

TABLE 6.—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 OCTOBER 4, 1922.

Country or region of birth.	Maximum monthly quota.	Admitted Oct. 1-4, 1922.	Annual quota.	Admitted July 1 to Oct. 4.	Balance for year.[1]
Albania	58	29	288	203	34
Armenia (Russian)	46	16	230	144	41
Austria	1,490	82	7,451	2,009	5,350
Belgium	313	7	1,563	844	693
Bulgaria	61	22	302	171	72
Czechoslovakia	2,871	269	14,357	7,628	6,718
Danzig	60	1	301	57	243
Denmark	1,124	29	5,619	1,214	4,378
Finland	784	35	3,921	1,416	2,492
Fiume	14	3	71	10	61
France	1,146	122	5,729	1,835	3,855
Germany	13,521	339	67,607	8,237	59,370
Greece	659	382	3,294	2,346	662
Hungary	1,128	26	5,638	2,938	2,689
Iceland	15	.....	75	34	41
Italy	8,411	2,047	42,057	26,307	15,086
Luxemburg	19	3	92	58	29
Memel Region	30	.....	150	17	132
Netherlands	721	19	3,607	863	2,742
Norway	2,440	128	12,202	2,059	10,053
Poland	4,215	315	21,076	8,162	12,468
Eastern Galacia	1,157	42	5,786	795	4,987
Pinsk Region	857	26	4,284	645	3,612
Portugal	493	361	2,465	1,828	598
Rumania	1,484	111	7,419	3,622	3,683
Bessarabian Region	558	1	2,792	157	2,621
Russia	4,323	333	21,613	6,251	14,976
Esthonia Region	270	3	1,348	48	1,297
Latvian Region	308	23	1,540	371	1,167
Lithuanian Region	462	43	2,310	1,186	1,109
Spain	182	70	912	612	90
Sweden	4,008	67	20,042	3,785	16,254
Switzerland	750	103	3,752	1,335	2,413
United Kingdom	15,468	1,501	77,342	19,433	57,801
Yugoslavia	1,285	76	6,426	3,010	3,226
Other Europe	17	1	86	51	18
Palestine	12	12	57	48	[2]
Syria	186	51	928	523	310
Turkey	478	262	2,388	1,435	587
Other Asia	16	16	81	62	[2]
Africa	25	25	122	100	[2]
Atlantic Islands	24	.....	121	47	67
Australia	56	14	279	161	64
New Zealand and Pacific Islands	16	2	80	40	25
Total	71,561	7,017	357,803	112,097	242,114

[1] All admissions and pending cases deducted from each annual quota.
[2] Exhausted for year.

COOPERATION.

Agricultural Cooperation in France.

THE August 24, 1922, issue of La Coopération (Basel) contains an account taken from L'Humanité, of cooperation among the French farmers. According to this account the agricultural cooperative movement in that country had its beginning in August, 1905, when 50 farmers of the commune of Sabriac in Aveyron formed a union. Their example was followed by their neighbors and a systematic plan of propaganda was engaged in.

To-day there are 1,100 of these farmers' productive and sale associations, with a combined membership of nearly 60,000, and their own central body, the Union of Agricultural Associations of the Central Plateau. The movement has its own bimonthly magazine, and its central union carries on research work, furnishes instruction in agriculture, and supplies plans and instruction to farmers desirous of building. The movement writes its own fire, cattle, and accident insurance, has its own agricultural credit association, its retirement fund (which since its foundation has paid out 739,815 francs ($142,784, par) in pensions), a cooperative creamery, a cooperative truck service, and besides all these, a consumers' cooperative service, established in 1918, which in 1921 had a business of 12,000,000 francs ($2,316,000, par).

Cooperative Labor Associations in France in 1920.

THE April–May–June, 1922, issue of the bulletin of the French Ministry of Labor contains (pp. 121–128) an account of the cooperative labor associations in France as of January 1, 1921. It was found that there were on that date 529 such associations in operation as compared with 476 on the same date in 1913.

The following table shows the data obtained from the associations:

STATISTICS OF OPERATION OF COOPERATIVE LABOR ASSOCIATIONS IN FRANCE, 1920.

[Franc at par=19.3 cents.]

Industry.	Total number of societies.	Membership.		Auxiliary labor.		Business.	
		Number of societies reporting.	Number of members.	Number of societies reporting.	Number of auxiliary workers employed.	Number of societies reporting.	Amount.
							Francs.
Agriculture	22	19	2,445	3	30	6	2,177,400
Mining and quarrying	7	7	262	6	68	5	1,026,000
Chemical	3	3	339	2	8	2	751,700
Food	20	17	2,886	9	65	10	12,196,800
Wood, etc	44	38	968	24	251	38	12,944,600
Metal	47	44	1,410	32	563	37	24,341,200
Public works and construction	177	164	2,768	113	2,540	131	62,707,100
Printing, paper, etc	90	61	2,985	49	1,652	59	18,811,200
Textile, clothing, etc	37	35	2,579	21	1,813	30	24,295,000
Hides and skins	19	17	888	8	112	14	10,322,900
Stone and glass	41	37	1,495	30	757	34	25,307,900
Transport	15	14	779	6	163	10	4,030,200
Miscellaneous	7	7	169	3	22	3	612,800
Total	529	463	19,973	306	8,044	379	199,524,800

Consumers' Cooperation.

IN A recent book entitled "The Consumer's Cooperative Movement," Sidney and Beatrice Webb analyze the present position of the movement in Great Britain and survey "its relation to other manifestations of democracy" and its possibilities. The authors do not regard the movement particularly as a method of saving for the poor nor as "a philanthropic device for eking out wages and producing contentment," but as a means by which "the operations of industry may be (and are increasingly being) carried on under democratic control, without the incentive of profit making or the stimulus of pecuniary gain."

Present Condition of Movement.

TO-DAY "something like three-sevenths" of all the families in Great Britain are enrolled as cooperators, and the movement supplies to this three-sevenths of the population one-half of their foodstuffs and one-tenth of their other household supplies. Five-eighths of the goods distributed by the cooperative retail stores are supplied by the two cooperative wholesale societies, and other goods are obtained from associations of producers or produced by the local societies themselves, "so that it is doubtful whether the societies purchase as much as one-third of their turnover from capitalist traders."

Of the goods supplied to the English retail societies by the Cooperative Wholesale Society about one-third is manufactured in the productive departments of the latter. In addition its banking department handles "about 95 per cent of the cash turnover of the whole cooperative movement in England and Wales, only 82 societies, with the remaining 5 per cent of the turnover, still keeping their accounts

with the capitalist banks." Its total deposits and withdrawals now exceed £645,000,000 ($3,138,892,500, par) a year. Its insurance department offers ordinary and industrial life insurance; fire, accident, workmen's compensation, employers' liability, and fidelity guaranty insurance; and a collective life insurance by which all the members of a cooperative society "without selection or medical examination, become automatically insured, without being bothered to make any individual payments, by the silent operation of 'dividend on purchases.'" The Cooperative Wholesale Society will supply to its constituent societies auditing and inventory service, and will supervise or even administer societies in temporary difficulties. Also, "in more ways than one, the Cooperative Wholesale Society brings to the retail cooperative society the service of brains":

> We may note, first, the function of giving information and advice. Not for nothing is the consciousness that the cooperative world constitutes a community of which the motto is "Each for all and all for each." To the Cooperative Wholesale Society officals and directors turn confidently the managers and the committeemen of all the smaller societies when they are perplexed by any business difficulty, or confronted with threats of oppression by the capitalist trader. Like the Vatican itself, the Cooperative Wholesale Society is—at least relatively to the resources of the average local cooperative society—omniscient and omnipotent. Its half a century of continuous expansion has given it experience of practically all commercial problems. It has come across nearly all the legal difficulties with which a cooperative society may be threatened. Its knowledge of possible alternatives is unrivaled. It has no other interest than that of enabling every retail society to surmount the difficulties in its path and to attain the greatest possible development. All this knowledge and experience is freely placed at the service of any cooperative society seeking assistance in business perplexity or trouble. And the Cooperative Wholesale Society is a potent ally. A railway company or a manufacturing trust may be tempted to act arbitrarily, or even tyrannically, to a small local business. But it is a different thing to have to deal with an enterprise having an annual turnover of a hundred millions sterling, with access to alternative routes and alternative sources of supply. * * *
>
> There may be on the wholesale board no great captain of industry, no Napoleon of commerce, no administrative genius; the members, thrown up by the chances of election, obviously vary not only in administrative ability but also in continuity of zeal and of physical and mental fitness; but, taken as a whole, these plain men, almost entirely of working-class extraction, with a formal education limited usually to that of the primary school, have managed to create and to maintain in efficiency an extraordinarily successful business organization; having behind it a couple of generations of continuous success, in an enterprise now exceeding in turnover of commodities a hundred million pounds a year; comprising a hundred different productive departments scattered not only over England but actually in a dozen different countries; with a specially constituted research department, in which a score of specialists are always at work on testing what is done and elaborating new schemes; and an aggregate staff of nearly 40,000 persons. What the directors contribute, besides judgment, experience, and knowledge of the great community which they have to serve, is, most conspicuously, the cement that keeps all the establishments and departments together, preventing overlapping, securing mutual service, and maintaining continuity of policy.

In the period 1914 to 1920 the number of members increased from three to four millions. While this is a large actual increase, it is, in comparison with the increase in trade-union membership that took place in the same period, not remarkable. Taking into consideration the increase in prices, the authors estimate that in the above period the sales of the movement increased only about 3 per cent and that the average purchases per member had actually decreased some 16 per cent.

> Even if we allow for the effect of the tendency to "open membership" (meaning the admission to membership of two or more persons in each family or household), the indication is either that the million of new members lately added to the army of

cooperators are less perfectly converted to "cooperative loyalty" than the corresponding accessions of the preceding decade, or that the whole body of 4,000,000 cooperators are being persuaded, to a greater extent than before, to go past the "co-op." for an increasing proportion of their purchases. It is generally believed that both these indications may be accepted as confirmed by the facts as seen by competent observers, though in different proportions in different parts of the country. We do not attribute much of the decline in the proportion that the average purchases of 1919 bear to the members' incomes to the manifold difficulties under which, as will be explained later, cooperative societies worked during the war, owing to shortage of supplies, the troubles of rationing, or the hampering of the importing organization of the wholesales. We think that a partial explanation may be found in the fact that the bulk of cooperative trade has so far consisted of foodstuffs (of which the retail societies are estimated to handle one-seventh of the whole of what is consumed in the United Kingdom), and only to a smaller extent of clothing, furniture, and other household requisites, of which they do not handle as much as one-tenth. There can be little doubt that the proportion of the income spent on food has diminished with the increase in family incomes, while there may have been an increase in the proportion spent on clothing, furniture, and other household requisites, of which the cooperative movement has not yet captured so large a share of the working-class custom.

A large increase has taken place in the amount of capital.

* * * The aggregate capital of the consumers' cooperative movement in Great Britain at the end of 1920, allowing for duplications, can hardly have been less than £100,000,000, a truly remarkable aggregation of the savings of the 4,000,000 cooperators, and one constituting far and away the largest business enterprise under the administration of the wage-earning class of any nation.

In the early societies, as in the small ones of to-day, the general body of members elected a committee of management of half a dozen or more, a secretary, and a treasurer, and these officers managed the society between the periodical meetings of the members, without any further organization. As the movement has grown, changes have taken place—development of new constitutional forms "which may become of great significance in the theory and practice of cooperative democracy." These changes, which are discussed in detail, are the constitution of the committee of management and the development of its power; the transformation in the status of the employees of the movement; the more elaborate organization of the electorate; and the rise of representative bodies intermediate between the committee of management and the membership.

Suggestions for Betterment of Defects of Movement.

ONE chapter of the book is devoted to a discussion of common criticisms of the movement and of certain remediable defects. Some of the means suggested for the improvement of unfavorable conditions found are here summarized:

Proper organization for meeting cases of distress, and suitable administrative devices to obviate the trouble of small cash payments for daily deliveries of such things as milk, bread, etc., thus making possible the strict enforcement of the no-credit rule.

Retention of part of the surplus savings for the common use of the membership on the Belgian plan.

Overcoming the "arrested development" of a large proportion of the societies through the broadening of (1) the individual society's activities, in such ways as the undertaking of new lines of merchandise, the establishment of a cooperative laundry and common kitchen, social club work (including the provision of club room, library, excursions, etc.), benevolent fund for members in temporary distress, and (2) of the activities of the whole movement, through the establishment of a series of hostels, boarding houses, and hotels primarily for the accommodation of cooperators, extension of the collective life-insurance principle to the field of maternity benefits, fire insurance, and old-age and premature disability pensions.

Overcoming the apathy of a large percentage of the membership through such measures as the instituting of district or divisional meetings of members, a system of proportional representation, and the further development of the Federal institutions of the movement. The proposed establishment of a single national society, of which the now independent local societies would be simply branches, is opposed as being impracticable, and fatal to the movement as a whole because of the "inevitable intensification" of the existing apathy.

The making of a cooperative map of Great Britain, marking the actual sphere of influence of each cooperative society, and the undertaking of active cooperative propaganda in the "'cooperative deserts' thus appearing as interstices."

Further union, by amalgamation, of competing cooperative societies, leading to a voluntary division of the whole country among the several societies.

Arrangements for easy transfer of membership from one society to another, upon removal of a member from the community.

Institution by the individual societies of a voluntary "efficiency audit" made by one of the cooperative Federal organizations.

Increase of the members' power over the cooperative machinery through a representative assembly, to check any danger to the democracy of the movement which might arise through the very expertness and ability of the salaried executive.

"Frank and cordial recognition" of the validity of the employees' claim to a voice in the administration through some such measures as adding employees' representatives to the committee of management, the establishment of "works committees," and increasing recognition of trade-unionism.

A union of policy of the trade-union and cooperative movements, and the establishment of a strong and vigorous central political organization of the cooperative movement.

The formation of a central department of research, audit, stimulation, and encouragement, "the greatest immediate step forward that the cooperative movement can now take."

Copartnership Productive Societies in Great Britain in 1921.

THE September, 1922, issue of Copartnership (London) contains statistics of operation of the workmen's copartnership productive societies for 1921. According to the report the year 1921 was the worst the societies have yet experienced. The following table shows the details of operation of the societies engaged in various kinds of work.

STATISTICS OF OPERATION OF COPARTNERSHIP PRODUCTIVE SOCIETIES IN GREAT BRITAIN, 1921, BY INDUSTRY.

[£ at par=$4.8665.]

Country and industry.	Number of societies.	Share and loan capital and reserve.	Amount of business.	Profit.	Loss.	Amount paid as dividend on wages.
England:						
Textile	13	£608,677	£1,226,837	£12,275	£105,823	£2,480
Boot and shoe	15	366,805	759,111	36,946	6,740	10,327
Metal	3	38,215	112,619	3,291	238	1,444
Building and wood	7	65,527	65,418	658	7,536	74
Printing	15	195,554	521,642	30,187	2,229	5,098
Miscellaneous	8	164,755	187,585	1,899	8,204	175
Total	61	1,439,533	2,873,212	85,256	130,770	19,598
Scotland:						
Textile	1	277,434	311,542	28,653	.....	1,210
Baking	1	847,637	1,876,214	112,528	.....	17,518
Printing	2	20,505	24,407	695	.....	56
Total	4	1,145,576	2,212,163	141,876	.....	18,784
Grand total	65	2,585,109	5,085,375	227,132	130,770	38,382

The following table shows the development of the copartnership movement since 1883:

DEVELOPMENT OF COPARTNERSHIP MOVEMENT IN GREAT BRITAIN SINCE 1883.
[£ at par=$4.8665.]

Country and year.	Number of societies.	Amount of capital.	Amount of business.	Profit.	Loss.	Amount returned as dividend on wages.
England:						
1883	12	£85,786	£138,248	£7,519	£114	.....
1895	74	317,434	606,399	26,549	3,135	£4,475
1909	93	679,425	1,138,915	52,665	7,283	10,135
1921	61	1,439,533	2,873,212	85,256	130,770	19,598
Scotland:						
1883	3	17,650	22,503	1,512	.....	.....
1895	8	440,934	583,116	36,572	.....	4,208
1909	6	1,302,328	3,058,923	143,814	197	15,433
1921	4	1,145,576	2,212,163	141,876	.....	18,784
Great Britain:						
1883	15	103,436	160,751	9,031	114	.....
1895	82	758,368	1,189,515	63,121	3,135	8,683
1909	99	2,981,753	4,197,838	196,479	7,480	25,568
1921	65	2,585,109	5,085,375	227,132	130,770	38,382

Agricultural Cooperative Societies of Switzerland.

IN a pamphlet [1] recently issued by the Secretariat of Swiss Peasants it is stated that the number of registered cooperative societies in Switzerland increased from 6,841 in 1910 to 11,209 in 1920. Agricultural cooperation has specially developed. Figures showing the results of an inquiry among the agricultural associations made in 1910 and again in 1920, are given in the table below:

NUMBER AND MEMBERSHIP OF EACH TYPE OF AGRICULTURAL COOPERATIVE SOCIETY IN SWITZERLAND, 1910 AND 1920.

Type of society.	Total number of societies.		Membership.			
			1910		1920	
	1910	1920	Number of societies reporting.	Members.	Number of societies reporting.	Members.
Purchase and sale societies	557	772	551	48,469	753	80,192
Creameries and cheese factories	2,785	3,519	2,735	77,227	3,485	102,760
Cattle-breeding societies	913	1,217	901	28,434	1,187	40,628
Horse-breeding societies	44	56	42	3,821	54	7,575
Goat-breeding societies	220	358	213	8,265	350	11,374
Sheep-breeding societies	38	52	36	613	49	1,464
Hog-breeding societies	48	82	46	1,217	79	2,625
Alpaca societies	227	344	177	7,471	322	15,546
Slaughtering societies	.....	2	.....	.....	2	152
Fruit canning and preserving societies	68	117	66	3,648	114	10,276
Viticultural societies	50	49	48	2,744	47	3,557
Forestry societies	.....	83	.....	.....	75	4,910
Threshing societies	133	270	129	3,946	266	9,814
Agricultural-machinery societies	.....	19	.....	.....	19	609
Distilleries	53	52	51	974	51	1,278
Milling societies	39	41	38	6,059	40	7,117
Bakeries	3	16	3	388	16	1,988
Irrigation societies	73	191	69	3,628	178	11,060
Farming societies	15	16	15	1,874	16	731
Credit societies	139	266	139	10,024	257	20,758
Societies making loans on cattle	5	18	5	457	11	749
Cattle-insurance societies	.....	1,279	.....	.....	1,251	89,072
Horse-insurance societies	31	40	29	7,474	38	15,211
Goat-insurance societies	.....	33	.....	.....	32	1,444
Hog-insurance societies	.....	7	.....	.....	7	654
Total	5,441	8,899	5,293	216,733	8,699	441,544

[1] Secrétariat des Paysans suisses. Rapport No. 67: La revision de la législation fédérale relative aux sociétés coopérative. Brugg, 1922.

WHAT STATE LABOR BUREAUS ARE DOING.

Maryland.

THE following data are taken from the annual report of the State Board of Labor and Statistics of Maryland for 1921:

Child labor.—The recent industrial depression resulted in the withdrawal of a number of children from industry and in many instances in the return of these children to school. On the other hand, some of those who gave up school to go to work might not have taken this step if the older members of the family had not been unemployed. The total number of children who applied for all kinds of permits at the Baltimore office in 1921 was 10,210 as against 17,894 in 1920, a decrease of 7,684, or 43 per cent.

The following is a summary of figures given in the report showing the number of permits issued to children in Maryland and number of children found at work in 1921 by the board's inspectors:

Total permits issued to children in Maryland (Baltimore City and 17 counties)	9,315
General	5,139
Vacation	1,589
Street trades	2,257
Over 16 statements	330
Number of inspections	642
Number of children found at work	3,367
On permit	3,241
In violation of law	126
Number of firms violating law	57
Number of prosecutions	52
Number of children involved	55
Number of convictions	34

Of the 483 children whom the medical examiners of the board found had physical defects, 45 underwent corrective operations, 356 were treated for their troubles, and 54 were placed under observation. In 28 cases either available treatment was refused or nothing could be done.

Realizing that the child's vocational adjustment is as a rule only one of the factors influencing the family's welfare, the department of special permits has interested itself to a considerable extent in investigating homes, but it has refrained from making family contacts where other agencies were actively engaged on the cases. It is felt, however, that the board's opportunities to serve as a clearing house for other agencies warrant further development.

Ten-hour law.—The 10-hour law applies to female employees in manufacturing, mechanical, mercantile, printing, and laundering establishments. The board's inspectors reported under this act, 2,448 inspections in the counties and the city of Baltimore in 1921 and 2,003 in 1920. The number of females found employed in 1921 was 42,218 and in the preceding year, 43,265. The records show two

cases of violation of the law in 1921. Both of the firms involved were convicted.

Factory inspection.—During 1921, 1,566 inspections were made under the factory-inspection law in Baltimore, covering 24,923 employees. The inspections in 1920 numbered 1,426, involving 27,002 employees. In the 52 county establishments 1,861 persons were employed in 1921. In the preceding year 28 inspections were made, covering 877 persons.

Strikes.—There were 11 strikes in the State during 1921 as compared with 21 in 1920. Only two of the strikes of 1921 could be regarded as of any great importance—the printers' strike, which continued from May 1 to December 31 and involved approximately 400 persons, and the marine workers' strike which lasted the whole month of May, involved 600 men, and "practically tied up the shipping interests of the port of Baltimore." In all the 11 strikes combined 2,443 persons were involved, 146,276 working days were lost, and the estimated wage loss was $490,050.

Michigan.

THE compensation division of the Department of Labor and Industry of the State of Michigan has furnished in typewritten form a brief summary of its proceedings for the fiscal years ending August 19, 1921, and August 19, 1922. Important changes in the law were made, simplifying procedure, in effect August 19, 1921, or at the close of the first year covered in this report. This change made it possible for workmen to request hearings for the purpose of an increase in compensation by filling out blanks furnished by the department. Prior thereto depositions were necessary, necessitating the hiring of a lawyer and a stenographer, this involving an expense which was beyond the reach of many of the injured workmen. Under the present system hearings are held not only in Lansing, but in Detroit, Marquette, and Sault Ste. Marie, thus making it possible for workmen to present their claims with much greater facility. The department has also furnished stenographers for hearings in all parts of the State in 1,386 cases at a cost to the State of $4,000. This applies to the second year only, no such arrangement having existed until the close of the first fiscal year.

The commission reports for the first year 624 hearings conducted in the locality of the accident as against 1,386 for the second year. Compensation agreements investigated and passed upon in 1921 totaled 22,186 and in 1922, 24,486. Compensation paid during the earlier year aggregated $4,034,444.63, while for the latter year it was $4,848,926.72.

Another feature of recent development is the work of rehabilitation, the law on this subject being operative only for the year 1922. The rehabilitation board investigated and reported on 636 cases, which led to 149 injured men being given training. The present summary gives no account of the number of accidents reported or considered.

Pennsylvania.[1]

THE industrial board has issued four new safety standards covering, respectively, industrial sanitation, head and eye protection, laundries, and tunnel construction and work in compressed air. Supplements to already established standards have been issued concerning the boiler code and the code on motion picture operation.

Of the board's 34 safety standards, seven have been revised and a number of others will be revised as occasion requires.

In addition to the standards and bulletins issued by the board, it also has available for distribution posters on smoking in factories and workshops, industrial sanitation, compressed air, and first aid.

Work of approvals committee.—The calendar of the September meeting of the industrial board's committee on approval of safety appliances included for approval one fire-alarm system, one portable motion-picture projector, one motion-picture booth, two emergency lighting units, a safety water gauge valve, a scaffolding machine, a type of fire escape, a respirator, a gas mask, an arc welding mask, a type of goggles, a floor grating, and five elevator devices. Approved devices are placed on exhibition in the Museum of Safety Appliances at Harrisburg.

Ruling on apprenticeship in stonecutting industries.—At the industrial board's meeting in September, 1922, a petition was submitted stating that it was felt that apprenticeship was being interfered with in the stonecutting industries because the employment of minors under 18 years of age in or about quarries was forbidden. As an outcome of this complaint the board ruled that the prohibition in question "is not to be interpreted as forbidding the employment of boys over 16 as apprentices in stonecutting in shops attached to quarries, provided that such shops observe all the safety regulations prescribed by the laws of the Commonwealth and by the rulings of the industrial board relative to the guarding of machinery, handling of explosives, operation of compressed air, eye protection, tool grinding processes and all other matters relating to general safety." It was stipulated by the board, however, that these apprentices should not be permitted to work in other sections of the quarry or "serve as errand boys throughout the quarry." The matter has also been referred to the safety standards committee with the expectation that that body will formulate a more explicit ruling on apprenticeship in the stonecutting industries and will study other industries for the purpose of drafting regulations for apprenticeship.

Anthrax investigation by division of hygiene and engineering.—A recent survey in Pennsylvania disclosed that most of the anthrax cases in the State were the result of handling materials from countries where the disease is common. It was found that the anthrax cases in Pennsylvania have been more prevalent among those who handled hides and skins than among those who handled hair and wool. Several cases, however, occurred among sorters working on both domestic and foreign wool.

The investigation of the horsehair industry was confined chiefly to Philadelphia, that city being the center of such industry. More

[1] Pennsylvania Department of Labor and Industry. Labor and Industry, Harrisburg, September, 1922; Bulletin of Information, Harrisburg, September, 1922.

than 20 work places were visited, and no provision was found for separately storing washed and infected hair.

"Virulent anthrax was isolated from dressed China horsehair, and anthraxlike organisms, failing to produce typical lesions, were found in five other samples, one of them domestic hair." A number of cases of anthrax in the United States have been caused by cheap horsehair brushes made of dressed China hair. It is thought that these brushes are now no longer made in Pennsylvania.

As a result of the State survey of the horsehair industry, the following regulations were issued:

That all horsehair, as early as possible in the process of its manufacture, preferably before the bales are opened, or with the minimum amount of handling after the bales have been opened, be subjected to one of the following processes: (*a*) Subjection to a dry heat at a temperature of 200° F. for 24 hours; (*b*) subjection to steam at 15 pounds' pressure for a period of two hours; (*c*) boiling with the hair constantly covered with boiling water for three hours.

The Pennsylvania tanneries in which anthrax is likely to be contracted may be divided into two principal groups—those handling cattle hides and those handling goatskins. Three of the establishments visited handled domestic horsehides and six plants were handling sheepskins which were received in salt and acid pickle. The survey included 47 cattle-hide tanneries and 16 tanneries handling goat skins.

Several freight handlers and longshoremen, seven carpenters or repairmen, and the wives of two tannery employees were infected, in addition to the cases reported among the regular tannery workers. The following are some of the statistical data submitted in the report on this survey:

Number of employees in tanneries visited and those now closed which gave histories of cases	13,339
Number of employees directly exposed to risk of infection	1,040
Number of cases of anthrax in these tanneries in 12 years, which were traceable to cattle hides or goat skins	123
Number of fatal cases	25
Number of nonfatal cases	98
Total number (estimated) of days lost	3,759.28
Average number of days lost (82 cases)	38.36

CURRENT NOTES OF INTEREST TO LABOR.

Graduate School in the United States Department of Agriculture.

THE graduate school for employees of the United States Department of Agriculture and others interested in an agricultural economic line of work opened for its second yearly session on October 16. The courses were instituted in 1921, and their success as manifested by the attendance of more than 200 department workers, and also in the interest shown by educational institutions in and outside of Washington, encouraged the committee on arrangements, of which Dr. E. D. Ball is chairman, to continue the experiment.

According to the Official Record of September 20, 1922 (p. 1), the lectures will be of three grades: (1) Undergraduate, available for the clerical forces and the younger members of the department; (2) review for those who wish to keep pace with recent developments in their particular lines of agricultural science; (3) advanced work of a graduate character.

Tentative courses for the year 1922-23 follow:

General and review courses.[1]

Elementary statistics including graphics. Mr. Haas.
Statistical methods. Mr. Tolley. (Open to those who have had the elementary course or its equivalent.)
Elementary agricultural economics. (First half.) Dr. Taylor, Mr. Stewart.
Marketing and distribution of agricultural products. (Second half.) Mr. Schoenfeld, Mr. Tenny.
Principles of writing. (First half.) Mr. Marquis.
Technical agricultural writing. (Second half.) Mr. Marquis et al.
Library science. Miss Ellen Hedrick. (Cataloging and classification. Bibliographic and reference work.)
Taxonomic botany. Dr. A. S. Hitchcock.

Advanced courses.

Physical chemistry of the colloids. Dr. W. A. Patrick of Johns Hopkins University.
Infection and immunity. Maj. A. Parker Hitchens. (Army Medical School.)
Plant breeding. Dr. Leighty et al. (Practical application of the laws of heredity to plant breeding.)
Advanced economic theory. (First half.) Dr. Taylor. Mr. Stewart.
Land economics. (Second half.) Dr. Gray, Dr. Baker, Dr. Ely, et al. (Graduate courses discussing important economic theories.)
Physics of the air. Dr. Humphreys. (Given in connection with the George Washington University.)

The school year will extend from October 16, 1922, to June 2, 1923, and will be divided into two 16-week terms with one week of vacation between semesters. The classes will meet twice a week in the various offices of the department promptly at 4.30 p. m. The school is self-supporting, tuition being fixed at $25 a year, per course, or $15 a term. Admittance to the courses is not confined to members of the department.

The instructors of this year's classes include eminent specialists along scientific lines from the department's force, from the War Department, and from Johns Hopkins University. Many leading graduate institutions have signified their willingness to give these

[1] Preliminary announcement, p. 2.

courses full credit, and four students have at this time used these credits in securing advanced degrees. Furthermore, the fact that such courses are being given has already resulted in attracting to the department a higher grade of college graduates.

Questioned as to the possibility of such courses becoming an incentive to young scientists to leave the department for more advanced study or for more highly paid positions, the chairman of the committee on arrangements admitted not only its possibility but its probability, and taking a broad view of the outcome advanced the opinion that if the young men and women who avail themselves of these unusual advantages eventually accept positions in agricultural colleges or in State experiment stations the department would be just as truly advancing the science of agriculture in the United States as though it were accomplished by the usual methods.

News-Bulletin of the Bureau of Vocational Information.

THE Bureau of Vocational Information, a New York organization devoted to the interests of women, issued on October 1, 1922, the first number of the News-Bulletin through whose pages the bureau "hopes to present itself and its work in new form to a larger audience than it has ever known." Number 1 of the bulletin relates largely to a history of the work of the bureau up to the present time, which aims "to interpret the character and requirements of the working world to women and to the educational institutions in which they are trained." A review of the more important publications of the bureau is also included. The bulletin will be published semimonthly in New York City.

Labor and Social Welfare Council Established in Peru.[1]

ON MAY 1, 1922, the President of Peru issued the decree establishing a labor and social welfare council (*Consejo Superior del Trabajo y de Prevision Social*), to serve as a consultative body, in cooperation with the Minister of Promotion (*Fomento*), in the study of social and labor problems in order to establish and maintain due equilibrium between capital and labor. The Minister of Promotion will act as chairman and the chief of the Labor Bureau as secretary of the council.

Life Insurance in Connection with Home-Owning Loans in Sweden.

A BRIEF notice appears in Arbetarskyddet No. 8, 1922 (p. 241), the organ of the Society for Workers' Welfare (*Föreningen för arbetarskydd*), stating that a Swedish insurance scheme has been in effect for about a year and a half whereby life insurance is granted to persons obtaining loans from the Home-Owning Loan Fund. The purpose of the insurance is to offer greater possibilities for the family to keep the home in case of the death of the one who has taken out the loan. The number of policies taken out before August 1, 1922, was 290, of which 224 were taken out during the first seven months of 1922.

[1] El Tiempo, Lima, May 1, 1922.

PUBLICATIONS RELATING TO LABOR.

Official—United States.

COLORADO.—*Industrial Commission. Fifth annual report, December 1, 1920, to December 1, 1921. Denver [1922]. 145 pp.*

Portions of this report are summarized on pages 190, 191, and 200 of this issue of the MONTHLY LABOR REVIEW.

MARYLAND.—*State Board of Labor and Statistics. Thirtieth annual report, 1921. Baltimore [1922]. x, 383 pp.*

Certain sections of this publication are summarized on pages 228 and 229 of this issue of the MONTHLY LABOR REVIEW.

MASSACHUSETTS.—*Department of Labor and Industries. Annual report on the statistics of labor for the year ending November 30, 1921. Boston [1922]. xii, [273] pp.*

This publication is in three parts:

1. Twentieth annual directory of labor organizations in Massachusetts, 1921. (Issued as Labor Bulletin No. 133.)

2. Eleventh annual report on union scale of wages and hours of labor in Massachusetts, 1920. (Issued as Labor Bulletin No. 134.)

3. Statistics on labor organizations in Massachusetts, 1918–1920. (Issued as Labor Bulletin No. 135.)

The following table is taken from Part 3:

MEMBERSHIP IN LOCAL UNIONS AT CLOSE OF 1918, 1919, AND 1920.

Item.	1918	1919	1920
Total membership	313,089	368,486	346,653
Males	266,894	302,105	288,772
Females	46,205	66,381	57,881
Percentage increase (+) or decrease (−) in number of members (both sexes)	+12.7	+17.7	−5.9
Males	+11.7	+13.2	−4.4
Females	+18.9	+43.7	−12.8

OHIO.—*Department of Education. State Board of Vocational Education. Ohio State plan for vocational education [for 1921–1922]. State and Federal aid for vocational education under the Smith-Hughes law. Industrial rehabilitation under the industrial rehabilitation law. Columbus, 1921. 68 pp.*

PHILIPPINE ISLANDS.—*Department of the Interior. Public Welfare Commissioner. First annual report, for the year ending December 31, 1921. Manila, 1922. 67 pp.*

SOUTH DAKOTA.—[*Department of Immigration.*] *Industrial Commissioner. Fifth annual report for the twelve months ending June 30, 1922. Pierre [1922]. 45 pp.*

A digest of this report is given on pages 191 and 192 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Department of Commerce. Bureau of Foreign and Domestic Commerce. Wholesale prices of leading articles in United States markets, January, 1919, to March, 1922. Washington, 1922. 23 pp. Miscellaneous series, No. 113.*

—— *Department of Labor. Bureau of Labor Statistics. Industrial unemployment: A statistical study of its extent and causes. Washington, 1922. 52 pp. Bulletin No. 310. Employment and unemployment series.*

For a review of this report see page 168 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Department of Labor. Bureau of Labor Statistics. Proceedings of the eighth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Chicago, Ill., September 19–23, 1921. Washington, 1922. 254 pp. Bulletin No. 304. Workmen's insurance and compensation series.*

An account of this convention was given in the MONTHLY LABOR REVIEW for November, 1921 (pp. 166–170).

—— —— —— *Wages and hours of labor in the iron and steel industry: 1907 to 1920. Washington, 1922. 201 pp. Bulletin No. 305. Wages and hours of labor series.*

Advance data from this bulletin were published in the December, 1921, MONTHLY LABOR REVIEW (pp. 81–89).

—— —— —— *Wholesale prices, 1890–1920. Washington, 1922. 247 pp. Bulletin No. 296. Wholesale prices series.*

—— —— *Children's Bureau. Child labor and welfare of children in an athracite coal-mining district. Washington, 1922. vii, 94 pp. Bureau publication No. 106. Illustrated.*

A résumé of this report appears on pages 152 to 154 of this issue of the MONTHLY LABOR REVIEW.

—— *Department of the Interior. Bureau of Mines. Application of the geophone to mining operations. Washington, 1922. 33 pp. Technical paper 277. Illustrated.*

—— —— —— *Compressed-air illness and its engineering importance, with a report of cases at the East River tunnels, by Edward Levy. Washington, 1922. 48 pp. Technical paper 285. Illustrated.*

The experience of the writer as physician to the public-service commission which supervised the construction of the four pairs of tunnels under the East River during the years 1914 to 1919 serves as the basis of this report. As compressed-air methods have to be used in many parts of the country in tunnels, foundation construction, and in mine shafts, and as the successful methods developed in New York are little known, this study was published by the Bureau of Mines in cooperation with the U. S. Public Health Service since the matter is considered to be of national importance. The report covers the mechanical apparatus used in driving tunnels with compressed air, caisson disease, selection of men, hours of labor, and atmospheric pressures, effect of various gases, symptoms and treatment of compressed-air illness, and regulations and safety measures.

—— —— —— *Permissible explosives, mining equipment, and apparatus, approved prior to March 15, 1922. Washington, 1922. 21 pp. Technical paper 307.*

—— —— —— *Production of explosives in the United States during the calendar year 1921, with notes on mine accidents due to explosives, by William W. Adams. Washington, 1922. 25 pp. Technical paper 313.*

The report states that during the past 10 years 4 to 9 per cent of all fatalities at coal mines, 9 to 14 per cent at metal mines, and 13 to 26 per cent at quarries have been due to the use of explosives. Although the fatality rate has fluctuated there has been a decline in the number of fatalities from this cause in the 10-year period. About 40 per cent of the fatalities and 10 per cent of the injuries were due to premature shots.

—— —— —— *Safe mechanical equipment for use in shaft sinking. Washington, 1922. 12 pp. Technical paper 276. Illustrated.*

—— *Federal Board for Vocational Education. Part-time schools. A survey of experience in the United States and foreign countries, with recommendations. Washington, 1922. xi, 462 pp. Bulletin No. 73. Trade and industrial series, No. 22.*

Part I of this report deals in great detail with the American part-time schools, and is based upon information secured in 26 cities situated in 17 States. The business of the part-time school is to determine the present and future needs of working minors, and having done so, to use every available means to meet them and to prepare this class of young people for useful citizenship. The demand for a public agency which can produce such results is unquestioned.

Legislation in connection with these schools, the report states, has been on the whole carefully done, though some criticism has arisen from the fact that parts of the school laws of some States have been copied without due consideration for the other laws of those States. An important defect in these laws has been the insufficient time allowed between their passage and the date of their enforcement.

Though financial records of part-time schools are difficult to ascertain, reliable reports from 17 places indicate an average cost per pupil per year for all types of part-time work, taken together, of from $32 to $34, and a cost per pupil per hour of from 16 to 17 cents, with the lower rate more probable. The housing of part-time schools is generally better than might be expected, 14 of 21 cities reporting housing conditions as "entirely satisfactory," 2 localities as "almost satisfactory," and 5 as unsatisfactory. Equipment, on the contrary, is often old or lacking altogether.

Teachers in part-time schools have most commonly been selected from the ranks of the all-day teachers and have not in many instances the special preparation which will be necessary if the movement is to be ultimately successful. There is, however, evidence on every hand that the need for specially trained teachers is recognized and will be met. Three out of 18 States have established compulsory part-time teacher training. Salaries paid part-time teachers are, in the main, compensatory for the service rendered.

Part II of the report contains accounts of proposed or existent part-time school movements in Canada, and in 11 European countries as follows: England and Scotland, Belgium, Denmark, France, Germany, Holland, Italy, Norway, Sweden, and Switzerland.

Suggested outlines for courses in various subjects already in use in different part-time schools are given in Appendix I.

Official—Foreign Countries.

AUSTRALIA (NEW SOUTH WALES).—*Department of Mines. Annual report for 1921. Sydney, 1922. 108 pp.*

—— *Registrar of Friendly Societies. Report for the 18 months ended June 30, 1921. Sydney, 1922. 35, 17 pp.*

Report covers trade-unions, and building, cooperative, and friendly societies.

—— (VICTORIA).—*Labor Department. Chief inspector of factories and shops. Report for the year ended December 31, 1921. Melbourne, 1922. 35 pp.*

During the year 1921 the number of factories in Victoria increased by 291, the employees by 787. Factory accidents as reported in 1921 numbered 830, a decrease of 32 from those in 1920. Of this number 13 resulted fatally. At the close of the period covered in the report there were 170 wages boards, either in existence or authorized, which fixed the wage conditions of about 171,000 workers. Wage rates for all classes of workers are shown in Appendixes B and C. The report covers also the operations of the servants' registry offices act, the lifts regulation act, and the footwear regulation act during 1921.

—— (WESTERN AUSTRALIA).—*Registrar of Friendly Societies. Report of proceedings for year ended June 30, 1922. Perth, 1922. 17 pp.*

CANADA (BRITISH COLUMBIA).—*Department of Labor. Annual report for the year ending December 31, 1921. Victoria, 1922. 72 pp.*

Includes the reports of the minimum-wage board, the inspector of factories, and the provincial employment service, a list of employers' associations, a union directory, and data on labor disputes. Wage data from the report are published on pages 128 and 129 of this issue of the MONTHLY LABOR REVIEW.

DENMARK.—*Statistiske Departement. Emneliste over den Danske Statistiske Litteratur i 1921. Copenhagen, 1922. 19 pp. Danmarks Statistik. Statistiske Meddelelser, 4. Raekke, 64. Bind, 5. Haefte.*

A subject list of Danish statistical literature published in 1921. Such a list was first issued in 1921 and covered Danish statistical literature published in 1920. Textbooks, etc., are not included.

—— —— *Husleje og Boligforhold, November, 1921. Copenhagen, 1922. 99 pp. Danmarks Statistik. Statistiske Meddelelser, 4. Raekke, 66. Bind, 4. Haefte.*

This report gives the results of the 1921 investigation as to house rents and housing conditions in Denmark. The following summary table shows the per cent of increase in house rents from 1916 to 1921 and from November, 1920, to November, 1921:

PER CENT OF INCREASE IN HOUSE RENTS IN DENMARK DURING SPECIFIED PERIODS.

	Per cent of increase from—			Per cent of increase from—	
	Feb., 1916, to Nov., 1921.	Feb. 1, 1921, to Nov., 1921.		Feb., 1916, to Nov., 1921.	Nov., 1920, to Nov., 1921.
The capital:			Provincial towns:		
Copenhagen	37.8	6.7	Large	52.4	8.2
Frederiksberg	32.9	6.6	Medium	58.4	5.3
Gentofte	45.1	[1] 3.8	Small	61.7	3.4
Total	36.7	5.6	Total	55.8	6.1

[1] Decrease.

FRANCE.—*Ministère du Travail. Tarifs de salaires et conventions collectives pendant la guerre (1914–1918). Tome III. Paris, 1922. 423 pp.*

The third volume of rates of wages and collective agreements in force in France during the war completes the survey in the different departments. A summary of the three volumes will be published later.

—— (DÉPARTEMENT DE LA SEINE).—*Office Départemental du Placement et de la Statistique du Travail. Rapport. Le fonctionnement de l'office départemental du placement et de la statistique du travail et l'organization des secours de chomage pendant les années 1920 et 1921. Paris, 1922. xi, 574 pp.*

The employment office of the Department of the Seine was organized in 1915. This report contains not only an account of the operation of the office during the years 1920 and 1921, comparing the results with those obtained in preceding years, but also shows what has been done to organize the labor market in a rational and methodical manner to assure the control of unemployment and to create a service for vocational guidance.

GERMANY.—*Reichsamt für Arbeitsvermittlung. Jahrbuch der Berufsverbände im deutschen Reiche. Jahrgang 1922. Berlin, 1922. 40*, 127 pp. 25. Sonderheft zum Reichs-Arbeitsblatt.*

An official yearbook for the year 1922 of occupational organizations in Germany published by the German National Employment Office as a supplement to the Reichs-Arbeitsblatt. It contains in text and table form data on the development of the organizations of employers, private salaried employees, manual workers, Government employees, and professional men. The contents of the volume will be discussed in a special article in a future issue of the MONTHLY LABOR REVIEW.

—— —— *Die Erwerbslosigkeit der Welt; ihre Wirkungen und ihre Bekämpfung. Berlin, 1922. 36 pp. Beilage zum Reichs-Arbeitsblatt 1922, No. 8.*

A memorandum on the state of unemployment in the world, its effects and the means for combating it, submitted by the German National Government to the conference at Genoa (April 10, 1922). Appendixes to the memorandum deal with statistics on unemployment, unemployment doles, and unemployment relief, and with the connection of the rate of exchange and unemployment in the various countries.

GERMANY.—*Reichsamt für Arbeitsvermittlung.—Die Tarifverträge im deutschen Reiche am Ende des Jahres 1920. Berlin, 1922. 37*, 80 pp. 26. Sonderheft zum Reichs-Arbeitsblatt.*

An official report of the German National Employment Office on collective agreements in force in Germany at the end of 1920. The contents of the volume will be discussed in a special article in a future issue of the MONTHLY LABOR REVIEW.

GREAT BRITAIN.—*India Office. Statement exhibiting the moral and material progress and condition of India during the year 1921. London, 1922. xvi, 368 pp.*

Chapter VI deals entirely with the people and their problems, including prices and wages, factory conditions, labor unions, strikes, welfare, labor bureaus, sanitation, education, etc.

—— *Registrar of Friendly Societies. Reports for the year ending December 31, 1921. Part A. General report. London, 1922. 75 pp. 173.*

—— (LONDON).—*County Council. Annual report for 1921. Vol. III, Public health. London, 1922. 82 pp. No. 2168.*

Contains the reports of the county medical officer of health and the school medical officer, with reports on drainage and the housing work of the council. Among other matters, the school medical officer gives the results of an investigation into the prevalence of rickets, a disease directly connected with undernutrition, among school children. The examination included 10,000 children. The most important finding seems to be that relating to the prevalence of the disease among children born during the war as compared with those born earlier.

The incidence of rickets on children born during the war and on those born previously was carefully compared. There is distinctly a lower percentage of rickets in entrant children who were born during the war (14.12 per cent, compared with 22.64 per cent in children born in former years). This confirms the findings as to the improved nutrition of the children which were made in these reports during the war years. The figures were all the more remarkable, inasmuch as it is in the entrant children that the signs of rickets are always the more marked. * * *

Dr. C. N. Atlee independently made observations upon 5,000 children in the Greenwich area. While he attended only to the more marked manifestations, he also confirms the East End results, finding considerably less rickets among the entrant infants than in the 8-year-old group, and he attributes this entirely to the full employment and good wages earned during the war.

INTERNATIONAL LABOR OFFICE.—*Wage changes in various countries, 1914–1921. Geneva, 1922. 76 pp. Studies and reports, series D. Wages and hours, No. 2.*

A summary of this report is given on pages 113 to 127 of this issue of the MONTHLY LABOR REVIEW.

ITALY.—*Ministero per il Lavoro e la Previdenza Sociale. Direzione Generale della Previdenza Sociale. L'assicurazione obligatoria contro gli infortuni sul lavoro in agricoltura. Rome, 1922. 181 pp. Publicazioni della Direzione Generale della Previdenza Sociale, No. 5.*

The first official Government report on the practical application of the law of August 23, 1917, on compulsory accident insurance of agricultural workers in Italy. The report covers the year 1919, the first year in which the law was in force. The contents of the report will be dealt with in a special article in a future issue of the MONTHLY LABOR REVIEW.

—— (PROVINCE OF MILAN).—*Commissione Provinciale Edilizia. Guida pratica per i comuni nella risoluzione del problema edilizio. Milan, 1922. 44 pp.*

A practical guide issued by the Provincial Building Commission of Milan with the aim of aiding municipalities in solving the housing problem. It contains valuable pointers on the remodeling of old, insanitary dwellings and how to grant communal aid in promoting the construction of new dwellings.

JAPAN.—*Department of Agriculture and Commerce. The agricultural and commercial statistics for 1920. [Tokyo] 1922. 172 pp.*

This is an English edition of the report of the department of agriculture and commerce. It is entirely made up of statistical tables relating to agriculture, commerce,

manufactures, fishing, mining, and forestry, including index numbers of market prices of important commodities and of wages (1912=100). Statistics relating to the islands belonging to Japan are given separately.

NEW ZEALAND.—*Department of Labor. Report [April 1, 1921, to March 31, 1922].* [Wellington, 1922.] *22 pp.*

The number of factories registered during the year was 14,013, an increase of 352 over the number in the preceding year. Factory workers numbered 96,980, an increase of 377 over 1920–21. Fatal accidents increased from 1,575 to 1,692. Changes in the shops and offices act provided for a 48-hour week in hotels and restaurants, the definition of restaurant for the purpose of the act being extended to boarding houses in which three or more persons, other than the occupier's family, are employed. Under the former act maximum weekly hours were 62 for men, 56 for women and boys in hotels, and 52 for women and boys in restaurants. Industrial disputes during the year reported numbered 83, 23 of which were merely stop-work meetings and 49 are regarded as unimportant. The 11 more important strikes are briefly outlined in the report. The total number of employment certificates issued to minors dropped from 2,635 to 2,248, a total decrease of 387. Of these, 305 applied to girls, 82 to boys.

NORWAY.—*Statistiske Centralbyrå. Fortegnelse over Norges Offisielle Statistikk, 1 Januar 1911–31 Desember 1920. Christiania, 1922. 22 pp.*

This publication is a list of official statistics of Norway issued during the 10-year period, 1911 to 1920, inclusive.

—— (CHRISTIANIA).—*Arbeidskontor. Aarsberetning, 1921.* [*Christiania, 1922.*] *39 pp. Norges Offentlige Arbeidsformidling.*

Twenty-fourth annual report of the Christiania employment office.

During 1921 there was a great increase in the number seeking employment and a large decrease in number of vacancies. There were 59,718 persons seeking work, 32,529 vacancies were reported, 28,451 persons were placed, and 28,485 vacant places were filled. The difference in the last two figures is due to the fact that 8 persons were placed and 42 vacancies were filled in cooperation with other offices.

Working conditions in Christiania, as in the rest of the country, have been very poor, with unemployment reaching the highest point in December. As relief measures, 1,271 men were placed at relief works at a wage of 1.75 kroner (46.9 cents, par) per hour, and trade courses were opened for the unemployed.

The report also contains data as to health insurance, unemployment funds, seamen, etc.

SWEDEN.—*Socialstyrelsen. Arbetsinställelser i Sverige år 1921. Stockholm, 1922. viii, 55 pp. Sveriges Officiella Statistik. Socialstatistik.*

This is an official report on labor disputes in Sweden during 1921. During that year there were 302 strikes affecting 1913 employers and 44,053 workers; 22 lockouts affecting 38 employers and 742 workers; and 23 of mixed character affecting 371 employers and 4,917 workers, making a total of 347 disputes affecting 2,322 employers and 49,712 workers, with a loss of 2,663,313 working days and a wage loss of about 32,000,000 kronor ($8,576,000, par), if the wage is assumed to be 12 kronor ($3.22, par) per day.

The report contains a French résumé.

SWITZERLAND.—*Eidgenössisches Statistisches Bureau. Statistisches Jahrbuch der Schweiz, 1921. Bern, August, 1922 viii, 401 pp.*

The thirtieth volume of the official yearbook of Switzerland covering the year 1921 and containing with a few additions the same kind of statistical tables as preceding issues. Of special interest to labor are the data relating to the occupational census, cooperative societies, the labor market, factories, trade-unions, strikes and lockouts, prices, cost of living, wages, and social insurance

SWITZERLAND.—*Verband Schweizerischer Arbeitsämter. Siebzehnter Geschäftsbericht für das Jahr 1921. Zurich, 1922. 41 pp.*

The seventeenth annual report of the Federation of Swiss Public Employment Offices. The federation comprises 12 cantonal and 10 communal employment offices. In 1921 all these offices combined received 294,174 applications for employment and placed 66,489 of the applicants in vacant situations. In 1920 the corresponding figures were 138,474 and 81,641.

Unofficial.

CANTINEAU, F. L. *La céruse: Une grave question d'hygiène professionnelle et sociale. Paris, 1921. 480 pp.*

This publication is a study of poisoning from the use of white lead in painting. It includes in the first section a discussion of the extent of poisoning from this source, the pathology of the disease, and therapeutic and prophylactic measures which have been advocated by authorities in different countries. The second part is devoted to an analysis of legislative and other measures for the control or prohibition of the use of white lead in the different countries, with particular reference to the history of the movement against its use in France. The third section takes up the question of substitutes from the standpoint of durability, selling prices, and supply.

GEE, PHILIP (EDITOR). *The industrial yearbook, 1922. London, 40 King Street, Covent Garden, W. C. 2, 1922. 1088 pp.*

The Industrial Yearbook, 1922, is, as the preface suggests, "a single work of reference embracing in detail within one pair of covers the salient facts and essential figures of British economic activity throughout its whole range." It supplies what books dealing with special industries, what Government reports devoted to individual trades, and what publications giving daily or monthly reports on business or trade conditions fail to show, and at the same time coordinates all this information into one whole which emphasizes the fact of the interdependence of all branches of trade.

Both the production and the labor conditions, especially wages and hours, in the principal industries are discussed under appropriate headings, and in addition the general subject of labor (1921) in its many aspects is treated separately. Trade-unions and the cooperative movement during 1921 constitute one chapter and employers' economics another. An account of imperial and foreign industrial conditions occupies about one-tenth of the yearbook, which taken altogether contains in a relatively small space a large amount of useful information regarding industrial matters.

SACHET, ADRIEN. *Traité théorique et pratique de la législation sur les accidents du travail et les maladies professionnelles. Paris, 1921. 2 vols. 710 and 742 pp. Sixth edition.*

This edition brings down to the date of publication the legislation enacted in France and Algeria relating to industrial accidents and occupational diseases and practically every phase of working conditions touching on these subjects is dealt with. Similar legislation in other countries is also summarized.

SELSKAP FOR NORGES VEL. *Arbeidslønnen i jordbruket for driftsårene 1915–16 og 1916–17; 1915–16 til 1918–19; 1915–16 til 1919–20; 1919–20 til 1920–21; driftsåret 1921–22. Christiania, 1917; 1919; 1920; 1921; and 1922. 8, 13, 10, 8, and 16 pp. 5 pamphlets.*

Since 1915 the Society for Norway's Welfare (*Selskap for Norges Vel*) has gathered and compiled statistics on wages in agriculture in Norway. This information is secured in each district from farmers chosen by the parish chairman. For the fiscal year 1921–22, comprising the summer of 1921 and the winter of 1921–22, the statistics are based on reports from over 1,600 farmers. These statistics are quoted in official publications and form an excellent series of statistics on agricultural wages in Norway from 1916 to 1922.

Wages in agriculture in Norway secured in part from these reports are given in the MONTHLY LABOR REVIEW for September, 1922 (pp. 118–121).