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LABOR SURVEY OF CLEVELAND CLOAK INDUSTRY.

BY BORIS EMMET, PH. D.

This brief survey of the Cleveland cloak, suit, and skirt industry was undertaken by the Bureau of Labor Statistics at the request of the Cleveland Garment Manufacturers' Association. The association was anxious to examine the various labor phases of its industry, with particular emphasis upon the following points: (1) The character of the existing labor supply, with reference to its source and to occupational distribution by sex, age, and conjugal condition; (2) the relative adequacy of the present supply of labor; (3) labor turnover and length of service; (4) general labor conditions, such as the prevailing hours of labor, extent of, and pay for, overtime work, light, sanitation, etc.; (5) labor costs; (6) regularity of employment; (7) individual earnings and employment opportunities, and (8) methods of employment regularization.

Aside from the fact that the cloak, suit, and skirt industry of Cleveland is manufacturing considerable amounts of military garments, and in rapidly increasing quantities, the principal interest of the bureau in this investigation lies in the fact that Cleveland appears to be the only women's clothing manufacturing center of any significance in which certain methods are said to have been applied successfully in the regularization of employment.

Employment regularization assumes a national importance because of the present unsettled condition of the labor supply of the country and of the imperative necessity therefore to distribute it as efficiently as possible. Irregular employment and consequent high labor turnover costs heavily, makes production slow, and decreases the quality of the output. Furthermore, the regularization of employment in the women's garment trades would release a large number of casual workers for service in war-garment industries where they are now sorely needed.

Employment regularization is no longer a matter of choice or preference on the part of the employer. The prewar irregularity of employment in this industry was due, in a great measure, to the existence of a surplus labor supply which could furnish large numbers of casual workers for short-service periods during the seasonal peaks of the trade. On account of the great curtailment of immigration and new demands for labor caused by the War, this excessive labor supply no longer exists. The new labor condition is made evident by

the fact that, for the first time in the history of these trades, manufacturers are beginning to experience difficulties in the delivery of orders. These difficulties are due largely, it is said, to their inability to get the casual help needed for short-service periods during the rush seasons of the year.

Effective employment regularization in the women's garment trades can be achieved, and is being achieved to some extent in the city of Cleveland by the pursuance of the following policies: (1) By extensive advertising of a few specific styles, which advertising creates a large and permanent demand for a few styles and enables firms therefore to manufacture in advance of sales without incurring great business risks; (2) by the manufacture of so-called fillers, usually cheap staple garments, the styles of which change only slightly, making it possible to manufacture such garments in large quantities for stock; (3) by compelling longer delivery dates which will not necessitate temporary short-time expansions of the manufacturing organization; and (4) by engaging in some contract work for an allied trade during the slack season of the year.

The section entitled "Methods of employment regularization" (p. 26) shows the extent to which, and how, each of the above-mentioned methods or policies of employment regularization have been successfully applied in the Cleveland cloak and suit industry. In this respect the Cleveland experience is instructive and should be studied by every women's garment manufacturer who realizes the necessity of adjusting himself to the new labor conditions created by the cessation of immigration and our entry into the War.

The investigation covered all the cloak and suit establishments affiliated with the Cleveland Garment Manufacturers' Association and three shops not affiliated with the association, a total of 21 firms. These employed an average aggregate of 3,335 workers during the year ending April 1, 1918, which was the period covered by the study. The total annual sales of all the firms amounted to \$14,500,161 in 1917. It is estimated that the last figure represents more than four-fifths of the total value of the cloaks, suits, and skirts manufactured annually in the city of Cleveland.

The inquiry did not cover any outside or contractors' shops. The relative importance of outside contracting in this city may be judged from the fact that only a little over 13 per cent of the manufacturing of the industry was done through contractors.

CHARACTER OF LABOR SUPPLY.

The labor supply of the Cleveland cloak and suit industry is largely local. Less than 25 per cent of the operators, 18 per cent of the pressers, 15 per cent of the cutters, and 2 per cent of the finishers ever worked elsewhere in the same industry. In this connection it

is interesting to note that none of the finishers, only 3 per cent of the cutters and pressers, and 8 per cent of the operators worked in a similar occupation prior to their arrival in the United States.

Table 1, which is based upon a census of the industry taken on April 3, 1918, gives an occupational distribution of the manufacturing employees, by sex. The tabulation shows that in the industry as a whole the proportion of males and females is approximately the same, namely, 48 and 52, respectively. It also shows that with reference to sex, the principal occupations of the trade may be grouped into three large divisions. Some occupations are filled exclusively by women, others only by men, and in still others both sexes are employed. To the first group belong all occupations requiring a relatively small physical exertion, or a small degree of skill, such as finishers, button sewers, and cleaners. Occupations requiring large amounts of physical effort, such as pressing and cutting, or an all-round knowledge of the trade, such as sample making, are manned almost exclusively by male employees. In the tailoring and operating as well as in the examining departments the proportion of men and of women is approximately the same.

TABLE 1.—NUMBER AND PER CENT OF MANUFACTURING EMPLOYEES, CLASSIFIED BY OCCUPATION AND BY SEX.

Occupation.	Total in industry.		Per cent of total in occupation.	
	Number.	Per cent.	Males.	Females.
Operators.....	1,192	39.1	54.4	45.6
Finishers, skilled.....	544	17.8	4.8	95.2
Pressers.....	368	12.1	97.8	2.2
Cutters and pattern graders.....	245	8.0	99.2	0.8
Finishers, unskilled.....	162	5.3	17.4	82.6
Button sewers and markers.....	114	3.7	1.8	98.2
Buttonhole makers.....	78	2.6	11.5	88.5
Trimmers, assorters, and assemblers.....	90	2.9	11.2	88.8
Examiners.....	71	2.3	47.9	52.1
Cleaners and label sewers.....	39	1.3	.....	100.0
Sample makers.....	39	1.3	94.9	5.1
Bushelers.....	18	0.6	66.7	33.3
Foremen and forewomen.....	91	3.0	62.7	37.3
Total.....	3,051	100.0	48.0	52.0

The above table shows also the numerical importance of each occupation. About 40 per cent of the workers of the trade are engaged in the operating occupations—that is, do machine sewing. The hand sewers or finishers constitute about 23 per cent of the total employed. The occupations appearing as third and fourth in numerical importance are those of pressing and cutting. These, respectively, contain about 12 and 8 per cent of the total manufacturing employees in the industry.

A compilation based upon the same census, giving an occupational classification of the manufacturing employees, by country of birth,

showed that, for the industry as a whole, the distribution of employees by country of birth was as follows: United States, 28.7 per cent; Russia, 27.2 per cent; Austria-Hungary, 25.2 per cent; Italy, 10.1 per cent; all other countries, 8.7 per cent. Of the numerically strong occupations, the largest proportion of native born, to wit, 44.2 per cent, was found among the cutters. The lowest proportion of native born was found among the pressers, of whom only 11.6 per cent was born in the United States. The first four occupations shown in Table 1, which occupations include more than four-fifths of all the workers, showed the following percentages of the foreign born: Pressers, 88 per cent; tailors and operators, 75 per cent; finishers, 73 per cent; and cutters, 56 per cent.

The conjugal condition of employees was found to be as follows: (1) Males: Married, 84.1 per cent; single, 14.9 per cent; widowed or divorced, 1 per cent. (2) Females: Married, 35 per cent; single, 60.6 per cent; widowed or divorced, 4.4 per cent. This distribution is interesting to the employers in view of their endeavor to establish a minimum wage, below which no person in the trade should be hired, in accordance with the needs of the worker. The conjugal condition of a person is, of course, some definite indication of the extent of his needs.

The age distribution of the employees was found by the census mentioned to be as follows: (1) Males: Under 20 years, 1.4 per cent; 20 and under 30, 26.1 per cent; 30 and under 40, 39.9 per cent; 40 years and over, 32.6 per cent. (2) Females: Under 20, 12.2 per cent; 20 and under 30, 50.5 per cent; 30 and under 40, 24.2 per cent; over 40, 13.1 per cent. The proportion of employees under 16 in the group denoted as "under 20" was negligible. The occupation having the larger proportion of members over 40 was that of bushelers or alteration tailors—one of the really skilled occupations of the trade. The most unskilled female occupations contained the largest proportion of workers under 20. These occupations contained cleaners, trimmers, assorters, and assemblers. More than one-fourth of the assemblers and assorters were under 20 years of age. As would naturally be expected, the most skilled and physically difficult occupations showed the lowest proportion of workers under 20. These occupations, with their respective proportions of members under 20 were: Pressers, 0.5 per cent; operators, 0.6 per cent; cutters, 5.3 per cent. The young members of the cutters' trade are, as a rule, apprentices, assistant and lining cutters—that is, boys or young men learning the trade.

With reference to length of service in the industry the following facts were found: (1) Males: Under 5 years in the trade, 11.4 per cent; 5 years and under 10, 20.7 per cent; 10 years and under 20, 44.5 per cent; 20 years and over, 23.4 per cent. (2) Females: Under

5 years, 51 per cent; 5 years and under 10, 28.4 per cent; 10 years and under 20, 17.7 per cent; 20 years and over, 2.9 per cent.

ADEQUACY OF LABOR SUPPLY.

Of the 21 firms, one-third reported that no shortage of labor of any kind was felt recently. The remaining two-thirds stated that during the busy seasons of the current year there was a real shortage of unskilled female finishers, at a starting wage of about \$9 per week. A close scrutiny revealed the fact that in some instances the reported labor shortage was due to the expansion of the activities of the firms, due to contracts received for military clothing. In other instances the shortage was due, in a large measure, to the high labor turnover, as high, in one or two instances, as 200 per cent, which figure is much above the average of the trade. It is true, of course, that the garment manufacturers are losing some of their help to war industries which offer better earning opportunities. Generally speaking, however, there appears to be no real shortage of women's garment workers. It is certain that some considerable increase in the minimums paid to learners, as well as in earning opportunities generally, would bring forth all the labor needed at the present time by those having a reasonable turnover, and nothing short of a great and constant inflow of new workers will help those of the employers who do not know how, or do not care, to keep their help.

In this connection it is interesting to note the methods of securing help used by the employers of the industry. Almost universally, advertising is resorted to. Very few, almost none, apply for help to private employment offices. All of the employers report that a considerable proportion of their new employees, from about 20 to 30 per cent, is secured through their own employees.

The majority of the Cleveland garment manufacturers are not utilizing to any great extent the existing city-State public employment office. This is unfortunate in view of the fact that the few who do use this agency are reporting very satisfactory results.

LABOR TURNOVER AND LENGTH OF SERVICE.

Slightly over one-fourth of the firms covered by the survey had employment records which enabled a computation of their labor turnover. The turnover figures presented in the following paragraph were arrived at, in each instance, by dividing the total number hired to replace employees who left on their own accord, or were discharged, by the average number employed during the year.

The firms which furnished labor turnover data employed an annual average of 1,757, or about one-half of the total in the industry. To maintain this force a total of 1,611 new employees were hired in addition to those who originally filled the positions. This shows a labor

turnover of about 92 per cent per annum for the industry as a whole. The specific percentages of labor turnover per annum for each of the five establishments reporting were found to be: 46.5, 75.8, 86.4, 119, and 204.

Table 2 shows the actual number employed and the equivalent number of full-time workers, by sex and occupation. The figures shown are based upon the records of firms which could furnish data regarding the hours worked by individual employees. The aggregate employed of these firms amounted to about one-half of the total in the trade.

TABLE 2.—NUMBER ACTUALLY EMPLOYED AND EQUIVALENT NUMBER OF FULL-TIME WORKERS, BY SEX AND OCCUPATION, YEAR ENDING APR. 1, 1948.

Occupation and sex.	Number of firms.	Total hours actually worked.	Equivalent number of full-time workers. ¹	Number of workers actually employed.	Excess of workers actually employed over number of full-time workers.
					<i>Per cent.</i>
Operators, male.....	4	398,673	181	235	29.8
Operators, female.....	4	815,724	371	701	88.9
Pressers, male.....	5	246,717	112	197	75.9
Pattern graders, male.....	4	22,421	10	9	.....
Cutters, male.....	8	239,997	109	198	81.7
Cutters, lining, etc., male.....	7	45,772	21	49	133.3
Sample makers, male.....	6	43,033	20	22	10.0
Finishers, skilled, male.....	4	38,440	17	22	29.4
Finishers, skilled, female.....	4	631,928	287	531	85.0
Finishers, unskilled, female.....	6	127,161	58	130	124.1
Examiners, male.....	7	55,152	25	26	4.0
Examiners, female.....	5	22,860	10	13	30.0
Bushelers, male.....	4	17,142	8	15	87.5
Bushelers, female.....	4	31,660	14	21	50.0
Trimmers, assorters, and assemblers, male.....	4	8,571	4	15	275.0
Trimmers, assorters, and assemblers, female.....	8	104,709	48	68	41.6
Button makers, male.....	1	3,326	2	3	50.0
Button makers, female.....	3	10,694	5	9	80.0
Button sewers and markers, female.....	4	50,322	23	56	143.5
Cleaners and label sewers, female.....	6	17,220	8	26	225.0
Foremen.....	7	115,398	52	50	.....
Forewomen.....	6	48,239	22	20	.....
Buttonhole makers, male.....	3	7,317	3	4	33.3
Buttonhole makers, female.....	8	45,459	21	35	66.7
Total.....		3,147,935	1,431	2,455	71.6

¹ The equivalent number of full-time workers was arrived at by dividing the aggregate of hours actually worked by all employees by the number of hours worked by one employed all year round, termed a full-time worker. The number of annual hours of a full-time worker (2,200) was arrived at by multiplying the prevailing weekly hours of labor (48) by the annual number of weeks (52) and deducting 56 hours for seven legal holidays, 48 hours, or one working week, for an annual vacation, 122 hours (about 5 per cent of total working time) for temporary disability, and 70 hours, or about nine working days, for the furlness days of the past year. The allowance for temporary disability was based upon the actual record of one of the larger firms, which record showed a per cent of time lost by reason of temporary disability of slightly below 5.

This table shows the labor turnover in each occupation. The firms reporting hired a total of 2,455 different individuals to fill 1,431 full-time positions. This constitutes an annual labor turnover percentage of 71.6. The specific turnover for each occupation and sex is shown in the last column. In this connection it is of interest to note that in the occupations of pattern grader, male, foremen, and forewomen the numbers actually employed were less than the

equivalent numbers of full-time workers. This indicates the absence of any labor turnover and considerable amounts of overtime work. The labor turnover was much larger for the females than for the males, the respective percentages being 85.6 and 49.8.

The relatively low labor turnover shown in the table is accounted for by the fact that only the large establishments of the industry, which have the most regular employment, furnished labor turnover information for this compilation. Generally speaking, the extent of labor turnover varies greatly with the size of the establishment. The smaller the shop the larger relatively is its labor turnover. One employer with an average force of 50 workers stated that he was hiring new employees at the rate of "at least a dozen" per week. This shows an annual turnover of 1,200 per cent. Similar conditions, it is said, prevail in the other small shops of the trade. The greater labor turnover in the small shops appears to be the logical result of the careless and haphazard methods used in dealing with the labor phase of their business as well as of the greater irregularity of work which makes employment with them very undesirable.

About seven-tenths of the labor turnover of the industry was caused by voluntary separations, to accept positions which offered better earning opportunities or more desirable conditions of employment.

On the assumption that regular employment is conducive to a lower turnover an effort was made to correlate the extent of labor turnover with the employment regularity in establishments with varying degrees of labor turnover. A comparison of two large establishments—one with the largest and the other with the smallest labor turnover in the industry—204 per cent and 46.5 per cent, respectively, per annum—showed that the establishment which had the more regular employment had a much lower labor turnover. This result, although not very conclusive, because of the small number of firms it is based upon, is, however, instructive.

About one-fourth of the firms covered by the investigation were in a position to furnish data regarding the length of service of the employees. This information is given, for six large establishments, in Table 3.

TABLE 3.—LENGTH OF SERVICE OF EMPLOYEES, BY SEX.

Sex.	Per cent of total in each classified service group.						Total.
	Under 3 months.	3 and under 6 months.	6 and under 12 months.	1 and under 3 years.	3 and under 5 years.	5 years and over.	
Male.....	7.9	4.2	10.0	21.1	19.6	37.2	100.0
Female.....	17.0	7.9	14.0	25.5	19.0	16.6	100.0

The six firms which furnished length of service data employed 874 men and 1,141 women, an aggregate of over 2,000 workers, or about three-fifths of the total in the trade. About 25 per cent of the female employees and only about half as large a proportion of the males were in the service of the companies which employed them under six months. Seventeen per cent of the females and slightly less than 8 per cent of the males were in service under three months, mostly over one month. As might naturally be expected, the male employees remain longer in the service than do the females, who frequently leave to marry. The longer service of the male employees is shown by the fact that the proportion of males in service over three years was 56.8 per cent as against 35.6 per cent in the female groups.

GENERAL LABOR CONDITIONS.

As is well known, the Cleveland cloak and suit industry is not unionized. With the exception of three of the larger establishments which have nonunion collective bargaining schemes,¹ the industry is still on an individual bargaining basis. Repeated attempts of the International Ladies Garment Workers' Union to secure the recognition of its organization have had the effect of educating the employers to the needs of the workers and of anticipating employees' demands by the voluntary granting of concessions. Many a valuable concession, such as a 48-hour week, time and one-half for overtime work, etc., was thus obtained.

With a few minor exceptions, the general physical conditions of work in the Cleveland cloak and suit industry, such as light, ventilation, drinking facilities, safety, etc., are more satisfactory than those found in many of the other principal women's garment manufacturing centers, such as New York, Philadelphia, Boston, or Chicago. The weekly rates of pay in the principal occupations are, however, lower. This disadvantage in rates is offset, to a slight extent, by a somewhat greater regularity of employment in Cleveland.

The prevailing hours of labor in Cleveland do not differ from those found in the other garment manufacturing centers. About three-fifths of the firms have a 48-hour working week. The remainder of the firms have a working week of from 49 to 51 hours. The extent of overtime work in Cleveland is not as great as in the other women's garment manufacturing centers, particularly New York City. In the great majority of instances overtime work is paid for at the rate of one and one-half times the regular rate.

¹ One of these schemes of nonunion collective bargaining is described in detail on pp. 180 to 184 of this issue of the MONTHLY LABOR REVIEW.

The cloak and suit industry of Cleveland is concentrated. About one-fifth of the firms employ about two-thirds of the total employed in the industry. The methods used in dealing with employees vary, generally speaking, with the size of the establishment. As a rule, labor questions are handled carelessly and haphazardly in the smaller establishments. The larger firms, however, have well organized employment and service departments whose functions are to look after the welfare and comfort of the employees. Some of the larger establishments endeavor to readjust wages in accordance with the changes in the cost of living by paying so-called cost of living bonuses.

LABOR COSTS.

By labor costs in this report are meant the costs of the wages paid to workers actually engaged in the manufacturing processes, such as sample making, cutting, pressing, operating, finishing, etc., exclusive of the overhead or indirect manufacturing expenditures represented by the salaries of foremen, supervisors, and factory clerical employees. Table 4 gives for each of the firms the total labor cost and the specific costs of the separate principal processes, in terms of a percentage of the total value of the annual product.

TABLE 4.—TOTAL LABOR COST AND LABOR COST OF SPECIFIED PROCESSES SHOWN IN PERCENTAGES OF VALUE OF THE PRODUCT.

Firm No.	All labor.	Cutting.	Sample making.	Pressing.	Tailoring and operating.	All other processes.
3.....	22.4	(1)	(1)	(1)	(1)	(1)
4.....	18.2	(1)	(1)	(1)	(1)	(1)
5.....	24.2	1.8	(1)	2.1	(2)	
6.....	22.2	(1)	(1)	(1)	(1)	20.3
9.....	17.1	1.7	(2)	2.4	10.1	2.9
10.....	18.7	2.5	1.4	2.5	10.4	1.9
11.....	21.8	1.7	1.0	3.2	10.9	5.0
12.....	25.0	2.7	(1)	3.3	19.0	(5)
13.....	21.7	3.6	1.7	2.2	12.7	
14.....	26.6	3.8	1.5	3.3	18.0	(5)
15.....	22.2	2.2	2.3	3.7	11.6	2.4
16.....	20.3	2.5	1.7	3.2	12.7	.2
17.....	21.9	3.2	(2)	(2)	(2)	18.7
18.....	20.9	(2)	1.6	(2)	(2)	19.3
19.....	26.0	(1)	(1)	(1)	(1)	(1)
20.....	29.5	4.2	2.3	3.9	15.5	3.6
21.....	22.3	3.2	(2)	2.7	15.2	1.2
22.....	18.4	2.2	(2)	1.5	10.0	4.7

¹ Not reported.

² Included in column "All other processes."

³ Includes finishers.

⁴ Includes cost of all other processes.

⁵ Included in column "Tailoring and operating."

The percentage cost figures shown in the column entitled "All labor," were arrived at, in each instance, by dividing the annual amounts expended on direct manufacturing labor by the annual sales value of the product. The average labor costs were as follows: All labor (18 firms), 21.6 per cent; cutting (13 firms), 2.5 per cent;

pressing (12 firms), 3.1 per cent; tailoring and operating, inclusive of finishing (6 firms), 12.4 per cent; tailoring and operating, exclusive of finishing (3 firms), 11.2 per cent; sample making (8 firms), 1.6 per cent.

Table 5 shows, by firms, the labor costs of the specific principal manufacturing processes, in terms of a percentage of the total labor cost:

TABLE 5.—LABOR COST OF SPECIFIC PROCESSES, SHOWN IN PERCENTAGES OF TOTAL LABOR COST.

Firm No.	Total labor cost.	Cutting.	Sample making.	Pressing.	Tailoring and operating.	All other processes.
5.....	100.0	7.4	(1)	8.9	(1)	83.7
7.....	100.0	12.1	(2)	(*)	(2)	87.9
9.....	100.0	9.9	(1)	13.9	58.9	17.3
10.....	100.0	13.6	7.7	13.3	55.7	9.7
11.....	100.0	7.9	4.4	14.8	49.9	23.0
12.....	100.0	10.6	(2)	13.5	75.9	(5)
13.....	100.0	16.7	7.3	10.3	68.5	6.7
14.....	100.0	14.3	7.3	12.3	67.5	(5)
15.....	100.0	10.1	10.5	16.6	52.2	10.6
16.....	100.0	12.1	8.2	15.8	61.9	2.0
17.....	100.0	14.4	(2)	(2)	(2)	85.6
18.....	100.0	(2)	7.6	(2)	(2)	92.4
20.....	100.0	14.3	7.9	13.1	52.5	12.2
21.....	100.0	14.2	(1)	12.0	68.1	5.7
22.....	100.0	12.0	(1)	8.4	54.9	24.7

¹ Included in column "All other processes."

² Not reported.

³ Includes finishers.

⁴ Includes cost of all other processes.

⁵ Included in column "Tailoring and operating."

More than one-half of the total labor cost was expended on machine and hand sewing. The average costs of the principal manufacturing processes were as follows: Tailoring and operating, inclusive of finishing (6 firms), 56.8 per cent; tailoring and operating, exclusive of finishing (3 firms), 51 per cent; pressing (12 firms), 14.3 per cent; cutting (14 firms), 11.2 per cent; and sample making (8 firms), 7.5 per cent.

REGULARITY OF EMPLOYMENT.

The relative regularity of employment is measured in this study by the weekly pay-roll amounts expended on productive labor, and not by the number employed or total labor hours. Because of the absence of labor-hour records in the majority of the firms, the regularity of employment was measured by the weekly pay-roll amounts. This method of measuring employment, although not so accurate as the one based upon the labor hours, was, however, preferable to any measurement based upon numbers employed for the reason that it is not customary in this industry to discharge workers during the dull seasons of the business. Instead of being discharged the employees are retained on a part-time basis.

No comparative analysis of employment regularity is possible of course, without a definite, more or less mathematically sound, common basis of comparison. Theoretically, full all-year-round employment should constitute such a basis. Unfortunately, full all-year-round employment is an unknown condition in the garment trade. A more practical base of comparison would therefore be the so-called normal amount of employment, which may in this industry be said to be the amount shown by the average pay-roll period of the year.

The relative regularity of employment is shown throughout this report in terms of a percentage of the average pay-roll amount of the year, which amount is derived by taking the total annual pay roll for all productive labor and dividing it by the number of pay-roll periods, usually 52. The result arrived at in this manner, that is, the average weekly amount of the year, is then taken as the unit of comparison in terms of which all the weekly pay-roll amounts are expressed.

The aggregates of weekly percentage variations from the annual average, whether above or below it, represent, it is believed, a satisfactory measurement of the extent of irregularity of employment.

Table 6 and Chart A show the comparative regularity of employment in the cloak, suit, and skirt industry of Cleveland in 1913 and in 1918. The figures for 1913 are based upon data published by this bureau in 1916 in Bulletin 183. They relate to the 52 weeks beginning August, 1912, and ending July, 1913. For purposes of comparison it was necessary to rearrange them, so that in both the table and chart they run as follows: April to July, 1913, August to December, 1912, January to March, 1913.

TABLE 6.—COMPARATIVE REGULARITY OF EMPLOYMENT IN 1913 AND 1918, SHOWN BY THE PERCENTAGE THAT THE AMOUNT OF EACH WEEKLY PAY ROLL IS MORE OR LESS THAN THE AVERAGE WEEKLY PAY ROLL FOR ALL PRODUCTIVE LABOR.

Week No.	Per cent of deviation each week from the average for the year in—		Week No.	Per cent of deviation each week from the average for the year in—		Week No.	Per cent of deviation each week from the average for the year in—	
	1913	1918		1913	1918		1913	1918
1.....	- 0.3	+22.7	19.....	+ 7.8	+ 8.2	37.....	-30.6	-26.2
2.....	+ .8	+11.7	20.....	+16.8	+10.2	38.....	-25.1	-27.3
3.....	- 5.5	+ 3.8	21.....	+14.4	+21.4	39.....	-37.7	-25.4
4.....	-21.6	- 9.0	22.....	+ 7.4	+17.9	40.....	-36.5	-21.9
5.....	-27.3	-12.4	23.....	- 5.2	+ 5.0	41.....	-34.3	- 5.2
6.....	-35.2	-23.3	24.....	-12.1	+ 6.4	42.....	-12.8	- .6
7.....	-20.1	-20.8	25.....	- 5.6	- 8.5	43.....	+ 3.4	-26.7
8.....	-14.5	-14.9	26.....	- 9.2	- 1.2	44.....	+17.2	+ 5.5
9.....	- 7.5	-18.0	27.....	- 9.1	+ 5.2	45.....	+18.1	+12.2
10.....	- 4.5	- 9.4	28.....	+ 4.5	+ 4.9	46.....	+28.1	+18.8
11.....	+ 4.4	- 1.9	29.....	+ 9.1	- 2.4	47.....	+31.1	+26.2
12.....	+11.3	+ 5.3	30.....	+14.5	- 7.5	48.....	+33.9	+27.5
13.....	+10.5	+ 5.6	31.....	+12.2	-11.0	49.....	+35.0	+24.9
14.....	+ 8.2	+ 7.1	32.....	+ 5.0	-17.9	50.....	+32.1	+24.4
15.....	+16.0	+19.5	33.....	- 5.1	-24.2	51.....	+25.4	+22.3
16.....	+22.6	+26.6	34.....	-21.2	-33.0	52.....	- 1.7	+22.3
17.....	+33.3	+25.7	35.....	-34.6	-33.9			
18.....	+32.4	+13.7	36.....	-39.1	-22.2			
						Total ¹	911.9	809.8

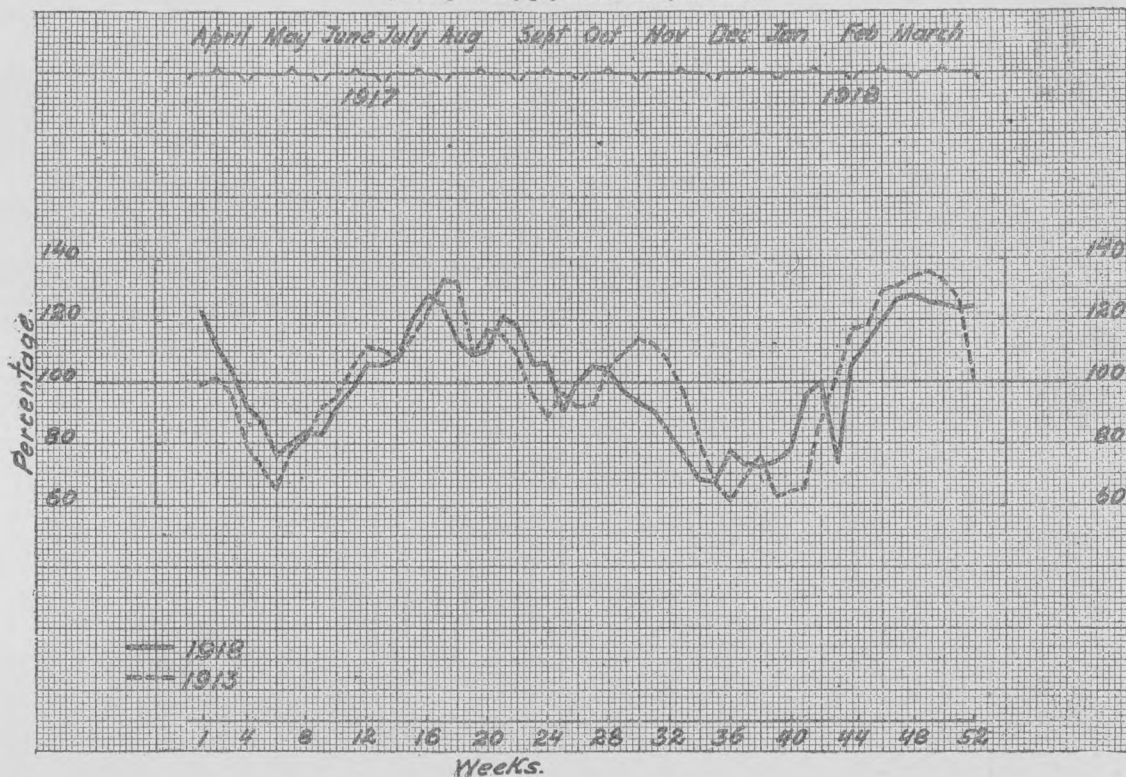
¹ In arriving at the total amount of the deviation all the deviations for the 52 weeks are added together, whether they are above (+) or below (-) the average (100).

The annual aggregates of weekly deviations from the average for the year (100) were 911.9 in 1913, and 809.8 in 1918. This shows that in the industry as a whole employment was about 11 per cent more regular in 1918.

Table 7 (pp. 14 and 15) shows the seasonal fluctuations of employment in each of the establishments covered by the survey, as well as the combined figures of employment regularity for all shops.

Chart A.—Comparative regularity of employment in 1913 and 1918, shown in percentages of average weekly pay roll, for all productive labor.

[Average weekly pay roll for each year=100.]



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TABLE 7.—COMPARATIVE REGULARITY OF EMPLOYMENT IN TWENTY-ONE ESTABLISHMENTS IN WHICH THE PERCENTAGE OF EMPLOYMENT IN THE WEEKLY PAY ROLL IS MORE OR LESS THAN THE AVERAGE WEEKLY PAY

Week No.	Per cent of deviation each week from the average for the year, in specified establishments.										
	1	2	3	4	5 ¹	6	7	8	9	10 ²	11
1	+19.8	- 5.6	+43.3	+ 19.4	+28.1	+ 60.0	+55.6	-16.7	+36.1	-----	+ 82.8
2	+ 4.2	+17.1	+30.3	- 5.6	-----	+ 36.1	+37.9	-19.2	+12.5	- 2.5	+ 32.0
3	- 1.8	+38.4	+37.5	+ 1.0	+17.1	+ 39.4	+22.2	-11.9	+ 9.5	-----	+ 19.6
4	-40.0	+18.2	+32.3	-31.9	-----	+ 34.1	-26.7	-15.8	-35.1	- 5.9	- 7.3
5	-61.1	-18.0	+33.0	-34.0	+11.3	-15.2	-52.8	-23.4	+24.5	-----	-31.4
6	-66.4	-25.1	-14.4	+40.6	-----	-42.0	-25.2	-22.5	-60.9	- 2.1	-16.3
7	-59.0	+ 2.0	-28.4	-47.0	-12.7	-24.9	+10.0	-28.0	-44.6	-66.6	-22.7
8	-46.3	- 7.7	-30.3	+40.8	-----	-31.0	+ 8.0	-44.9	-23.9	+17.1	-48.2
9	-31.7	-29.3	-33.3	-24.9	-26.7	-40.4	-16.6	-43.2	-34.7	-----	-79.7
10	-33.2	-27.2	-27.2	-18.5	-----	-26.5	+12.6	-31.5	-33.5	-----	-69.6
11	- 6.3	-21.1	-17.7	-31.1	-13.2	-15.3	+24.2	- 2.9	-17.2	+ 6.4	-60.6
12	- 1.5	-10.8	+ 2.5	-12.3	-----	+ 32.1	+23.2	+39.8	+72.7	-----	-57.4
13	+28.9	+11.4	-17.3	- 8	+27.2	+ 50.9	+15.2	+20.4	+13.9	- 4.8	-18.8
14	+11.0	+24.2	+13.2	- 4.6	-----	+ 29.7	+17.5	+20.1	+ 9.7	-----	-18.8
15	+37.8	+ 6.8	+ 7.8	+28.5	+58.8	+ 93.4	+29.2	+33.2	+ 8.8	- 3	+30.8
16	+42.4	- 4.5	+15.1	+18.2	-----	+ 92.0	+58.8	+41.3	+40.5	-----	+33.1
17	+17.5	- 1.0	+18.8	- 3.6	+37.5	+101.1	+60.5	+39.2	+60.6	+31.2	- 2.1
18	+ 2.2	- 5.2	+ 8.1	- 7.6	-----	+ 30.3	+ 9.9	+43.8	+22.5	-----	-31.9
19	+ 5.8	- 1.7	+36.5	-41.6	-16.5	+ 32.1	-45.0	+14.5	+34.7	-----	-67.5
20	+31.3	-29.9	+19.6	-28.4	-----	+ 29.3	-24.3	+28.1	+10.9	+10.1	-74.3
21	- 3.1	-16.6	+34.6	+68.7	+37.1	+ 7.1	+ 6.9	+25.0	- 4.8	-----	- 5.6
22	+26.0	-10.2	+22.1	+125.8	-----	+ 9.0	+ 2.1	+25.2	- 8.3	+29.0	+15.2
23	+10.8	- 7.4	+24.4	+77.1	+41.9	-41.7	-14.9	+ 2	+ 1.9	-----	- 6.6
24	+22.5	- 8.8	+25.7	+92.7	-----	-61.8	-19.4	+28.7	+ 6.1	- 2.3	+ 6.5
25	-26.7	-14.1	- 3	+45.5	+24.5	-21.1	-51.0	-28.7	-31.1	-----	-21.3
26	-28.4	- 2.1	+20.1	+22.9	-----	-12.8	-39.1	- 3.7	- 5.2	- 1.8	+ 4.2
27	- 1.2	-19.1	+ 4	+31.6	+34.8	- 5.2	-29.8	-22.4	- 3.3	-----	+47.9
28	-11.2	-12.3	- 3.7	-12.9	-----	+ 1.3	-21.7	- 4.1	- 7.6	- 8.1	+49.0
29	-21.4	-12.7	-38.4	-12.7	- 9.6	-24.9	- 3	-14.2	+ 3.1	-----	+28.2
30	-41.0	- 6.7	-32.7	-25.1	-----	-56.2	+ 4.1	-17.0	+16.6	- 1.4	-22.6
31	-41.0	- 3.1	- 8.2	-34.4	-50.2	-62.8	+ 6.3	-10.4	+ 7.1	-----	+44.2
32	-42.5	+ 5.0	- 7.0	(3)	-----	-49.8	- 3.6	-12.3	-17.0	-----	-31.4
33	-68.6	-10.6	- 7.2	-31.3	-46.1	-40.6	- 7.1	-22.1	-45.1	-21.9	-31.4
34	-52.6	- 9.5	- 6.5	-31.5	-----	-32.6	-31.4	-47.7	-52.2	-----	-58.6
35	-39.2	-24.4	-18.9	-50.5	-42.8	-32.3	-50.0	-56.5	-48.2	-43.0	-78.8
36	-37.8	-20.9	-18.1	-44.7	-----	-33.5	-26.0	-38.9	+56.7	-----	-75.7
37	-36.3	- 1.7	-42.9	-42.5	-31.1	-36.1	-11.3	-53.7	-44.9	-36.0	-67.1
38	-41.2	-41.1	-47.2	-30.1	-----	-23.3	-13.4	-18.9	-51.8	-----	-62.2
39	-16.0	-63.4	-46.3	-59.2	- 2.3	-37.2	-17.8	-24.7	-42.1	- 7.7	-68.3
40	+ 2.1	-68.8	-16.1	-46.6	-----	-23.0	-29.6	- 7	-35.1	-----	-49.1
41	+18.2	+ 2.9	-67.8	-46.6	-32.7	- 5.5	-31.4	+31.9	+ 3.5	- 3.6	- 2.8
42	+21.7	-29.4	-58.1	-42.9	-----	- 1.6	- 5.3	+26.5	+29.8	-----	+ 32.2
43	-34.5	+33.1	-45.0	- 5	-26.5	-31.6	-37.0	- 9.7	-14.7	- 4.3	+ 5.7
44	+37.1	+11.8	-36.2	+22.3	-----	+ 5.7	+14.7	+22.1	+32.1	-----	+64.5
45	+65.1	+14.6	-24.2	- 3.4	-10.9	-12.8	+18.1	+11.0	+28.1	-----	+30.6
46	+62.8	+ 8.9	+24.2	+44.2	-----	+ 1.4	+31.8	+26.8	+29.6	+ 7.3	+73.1
47	+92.7	+53.6	-21.1	+67.4	+ 1.0	+34.7	+43.9	+53.0	+22.3	-----	+97.3
48	+86.5	+65.3	+16.5	+77.1	-----	+19.9	+38.1	+35.9	+15.5	+14.0	+90.4
49	+66.4	+72.8	+57.4	+42.6	+ 1.9	+12.8	+41.4	+19.5	+10.9	-----	+97.4
50	+61.1	+61.8	+68.7	+39.1	-----	+27.8	+15.2	+38.5	+13.8	+16.6	+108.5
51	+67.2	+53.0	+72.4	+31.8	- 1.4	+16.5	+16.1	+22.8	+24.7	-----	+133.9
52	+78.2	+46.1	+49.9	+30.8	-----	+46.7	+ 7.3	+ 1.2	+27.1	+14.6	+149.1
Total ⁴	1,809.3	1,147.0	1,428.9	1,774.9	1,287.8	1,685.8	1,261.5	1,294.4	1,327.1	292.9	2,464.3

¹ This establishment has a biweekly pay-roll period.² This establishment has a semimonthly pay-roll period.

LISHMENTS, SHOWN BY THE PERCENTAGE THAT THE AMOUNT OF EACH WEEKLY ROLL FOR ALL PRODUCTIVE LABOR, FOR YEAR ENDING APR. 1, 1918.

Per cent of deviation each week from the average for the year, in specified establishments.										All establishments.	Week No.
12	13	14	15	16	17	18	19	20	21		
+37.9	+21.8	+13.4	+35.2	+54.9	+15.6	+53.2	+ 8.3	- 9.2	+77.1	+22.7	1
+21.1	- 1.3	+ 2.1	+10.0	+25.8	+13.5	+19.4	+ 1.5	- 3.1	+53.0	+11.7	2
+11.4	+16.8	- 1.7	-41.7	+16.0	+11.0	+11.4	- 3.6	-17.5	+39.9	+ 3.8	3
-10.4	-26.4	-25.6	-32.0	-23.1	+14.1	-35.5	- 7.7	-34.9	+ 8.7	- 9.0	4
-11.9	-66.4	-25.1	-40.4	-10.1	- 2.9	-44.4	- 3.5	-25.5	-16.4	-12.4	5
+ 4	-70.0	-41.2	-55.8	- 7.7	-11.1	-42.8	-20.5	-10.6	- 9.1	-23.3	6
+ 9.0	-46.8	-48.7	-20.2	- 5.6	-19.3	-44.9	-19.3	- 4.2	-14.2	-20.8	7
+11.2	-37.2	-33.1	+ 5.8	-52.3	-15.2	-37.1	-14.2	- 3.0	+ 1.4	-14.9	8
-61.6	-28.5	-19.6	- 3.3	-39.0	-14.5	-15.8	-15.2	-11.4	+ 8.7	-18.0	9
- 3.4	-20.0	- 9.5	+ 8	-33.2	+ 3.1	-30.0	- 1.9	- 5.2	+ 3.1	- 9.4	10
+13.9	-30.5	+ 9.5	+25.8	+ 1.0	- 7.1	-19.6	+ .5	+ .3	- 8.5	- 1.9	11
+19.3	+ 8.4	+ 5.8	+15.9	+18.6	- 1.8	-48.4	+ .4	+ 5.6	+13.0	+ 5.3	12
+19.6	+23.8	+ 8.2	+ 6.5	+ 3.0	+ 1.5	-18.5	+ 7.2	- 5.0	+ 2.7	+ 5.6	13
+20.5	+36.2	+13.0	+ 1.0	- 2.3	+ 1.1	+19.1	- 3.4	- 7.6	+16.1	+ 7.1	14
+18.0	+32.2	+26.0	+43.6	- 2.8	+ 1.1	+46.6	+11.6	- 4.5	+19.6	+19.5	15
+12.9	+58.8	+29.1	+50.2	+ 3.0	- 1	+27.6	+10.2	+ 2.7	+29.9	+26.6	16
+18.5	+54.9	+32.0	+40.4	-28.0	+ 3.5	+30.5	+15.3	+22.1	+56.2	+25.7	17
-26.4	+38.6	+24.0	+ 4.6	-40.5	+ 5.0	+36.1	+16.3	+18.3	+31.0	+13.7	18
-59.7	+53.7	+31.6	+ 9.7	-47.4	+ 4.6	+15.4	+17.8	+19.9	+ 6.6	+ 8.2	19
-58.1	+46.8	+29.0	+46.3	-22.4	+ 5.4	+ 8.9	+16.8	+24.4	-39.9	+10.2	20
-16.2	+38.1	+28.0	+49.6	+18.3	+15.5	-15.6	+14.9	+72.5	-49.0	+21.4	21
+ 8	+ 8.0	+16.4	+44.3	+34.3	+10.6	+13.0	+13.8	+23.0	-30.7	+17.9	22
+ 4.0	- 4	-14.4	+20.1	- 8.0	+ 8.1	+37.8	- 1.4	+20.7	- 9.8	+ 5.0	23
+20.7	+ 4.9	-22.6	+11.3	+12.8	+ 9.5	+40.2	+13.6	+17.1	- 7.0	+ 6.4	24
- 9.1	-19.6	-32.7	-15.0	+53.0	+ 2.9	+11.7	- 3.9	- 4.0	-23.3	- 8.5	25
+ 6	+40.8	-14.9	-10.6	+48.4	+ 2.6	+ 2.3	- 2.4	- .1	-34.0	- 1.2	26
+25.2	+41.5	+ 2.7	+ 1.0	+74.0	+ 2.7	+29.4	+ 5.7	+ 4.2	-10.1	+ 5.2	27
+41.7	+43.0	+ 1.8	+ 5.5	+95.0	+ .8	+27.0	+ 5.7	-12.5	-14.9	+ 4.9	28
+34.6	+21.7	+ 3.0	- 7.2	+52.7	- .4	+29.7	+ .1	-15.5	-36.8	- 2.4	29
+17.6	-15.0	+ 2.0	-22.9	+29.5	- 2.8	+ 3.5	+ .3	-16.8	-51.8	- 7.5	30
-12.7	-11.1	+11.4	-28.7	+21.4	- 4.5	-10.7	+ .5	- 8.3	-47.6	-11.0	31
-46.3	-45.5	+ 7.9	-33.9	-42.4	-10.2	-23.4	- 4.0	- 6.5	-50.8	-17.9	32
-49.5	-71.5	+26.3	-64.9	-58.7	-10.4	-26.1	- 8.3	-10.3	-52.4	-24.2	33
-62.6	-74.7	-26.8	-60.1	-28.0	- 8.3	-32.3	-19.1	-14.8	-41.0	-33.0	34
-37.0	-56.8	-36.3	-56.8	-46.7	- 4.8	-10.3	-23.0	- 7.9	-37.7	-33.9	35
-33.0	-44.8	-32.8	-55.0	+20.7	- .4	- 1.1	-24.8	- 7.9	-31.5	-22.2	36
-27.9	-32.2	-22.1	-41.2	-18.0	+ .6	-24.5	-27.6	-13.3	-18.5	-26.2	37
-20.1	-15.2	-38.7	-49.8	-45.5	+ 1.1	-56.0	-48.4	-23.7	- .1	-27.3	38
-29.4	-13.6	-43.1	-56.1	-73.0	- .2	-63.2	- 7.1	-19.7	+ 8.7	-25.4	39
-26.7	- .1	-29.7	-65.9	-54.2	- 6.1	-57.9	-18.7	-19.4	- 9.7	-21.9	40
-11.0	-28.8	+ .2	-34.2	- 2.7	+10.2	-20.3	- 9.4	- 5.6	+ 5.5	- 5.2	41
-11.9	-13.4	+21.4	-17.5	- 2.2	+ 7.7	+ .5	+ 7.3	- 9.9	+10.1	- .6	42
-37.6	-43.4	-25.7	-34.1	-73.1	-42.8	-20.0	-16.1	-30.3	+15.8	-26.7	43
+13.6	-10.4	+15.9	+ 6.1	+17.9	- 2.0	+32.6	- 4.6	- 6.3	- 5.1	+ 5.5	44
+34.3	+31.0	+22.8	+39.6	+ 4.9	+ 3.0	+26.6	+10.2	+ 6.3	+14.6	+12.2	45
+32.4	+32.6	+24.1	+49.1	+ 9.0	- 2.5	+21.1	+15.6	+15.6	+13.5	+18.8	46
+51.0	+35.7	+34.6	+58.7	+21.2	- 2.2	+15.5	+ 3.8	+34.4	+17.1	+26.2	47
+40.8	+38.6	+34.0	+54.8	+21.2	+ 4.3	+25.7	+27.1	+36.9	+12.7	+27.5	48
+38.3	+28.6	+26.4	+52.2	+26.5	+ 4.2	+21.7	+24.1	+34.2	-16.2	+24.9	49
+30.4	+25.0	+14.7	+50.0	+24.5	+ 9.9	+18.5	+19.0	+20.3	+68.9	+24.4	50
+23.2	+27.9	+17.5	+48.0	+40.7	- 2.8	+33.8	+18.7	+ 1.0	+70.7	+22.3	51
+22.2	+16.2	+12.2	+48.3	+43.1	+5.9	+41.2	+21.5	- 5.5	+64.1	+22.3	52
1,307.6	1,649.2	1,091.3	1,681.7	1,585.4	350.5	1,398.4	615.9	759.5	1,334.8	809.8	Total.

* No change.

* The total is the sum of all the deviations both + and -.

This table shows that the extent of variations in the regularity of employment in individual establishments is great. By far the most regular employment was found in establishment No. 17 which showed an aggregate of deviations from the annual average of only 350.5, while establishment No. 19, which had the next lowest rate, showed the aggregate of employment deviations to be 615.9, or about 76 per cent greater than that of establishment No. 17. The most irregular employment was found in establishment No. 11 which showed an aggregate of deviations from the average of 2,464.3, or an employment irregularity over seven times larger than that of firm No. 17. In comparing these totals attention is directed to footnotes 1, 2, and 4.

Table 8 and Chart B show the comparative regularity of employment in selected groups of large and small shops.

TABLE 8.—COMPARATIVE REGULARITY OF EMPLOYMENT IN LARGE AND SMALL ESTABLISHMENTS, SHOWN BY THE PERCENTAGE THAT THE AMOUNT OF EACH WEEKLY PAY ROLL IS MORE OR LESS THAN THE AVERAGE WEEKLY PAY ROLL FOR ALL PRODUCTIVE LABOR FOR EACH GROUP, FOR THE YEAR ENDING APR. 1, 1918.

Week No.	Per cent of deviation each week from the average for the year in—		Week No.	Per cent of deviation each week from the average for the year in—		Week No.	Per cent of deviation each week from the average for the year in—	
	Large establishments.	Small establishments.		Large establishments.	Small establishments.		Large establishments.	Small establishments.
1.....	+19.7	+47.2	19.....	+19.3	+ 4.8	37.....	-20.7	-24.9
2.....	+ 9.4	+22.8	20.....	+20.4	- 7.8	38.....	-28.9	-30.4
3.....	- 9.4	+22.5	21.....	+26.4	+ 5.2	39.....	-26.7	-41.3
4.....	-10.4	-10.8	22.....	+16.6	+17.5	40.....	-24.5	-34.3
5.....	- 9.4	-30.2	23.....	+ 4.8	+ 4.2	41.....	- 6.5	-13.1
6.....	-30.4	-34.0	24.....	+ 3.9	+ 8.2	42.....	+ 4.5	- 6.5
7.....	-28.6	-27.6	25.....	-12.7	+ 5.5	43.....	-30.9	-25.6
8.....	-17.7	-31.8	26.....	- 3.4	+10.8	44.....	+ 6.9	+10.7
9.....	-17.5	-27.6	27.....	+ 1.4	+25.9	45.....	+13.2	+11.8
10.....	- 7.2	-22.1	28.....	- 1.1	+26.3	46.....	+19.8	+17.8
11.....	+ 6.6	-16.2	29.....	- 4.1	+ 7.8	47.....	+19.8	+29.6
12.....	+11.1	+ 8	30.....	- 5.5	-15.6	48.....	+25.3	+20.5
13.....	+ 3.6	+ 9.8	31.....	- 3.1	-20.3	49.....	+23.7	+34.1
14.....	+ 4.4	+16.2	32.....	- 8.9	-35.5	50.....	+20.3	+39.6
15.....	+15.2	+34.1	33.....	-12.4	-45.7	51.....	+20.0	+41.3
16.....	+20.0	+36.2	34.....	-24.5	-38.7	52.....		
17.....	+22.5	+33.6	35.....	-25.5	-36.9			
18.....	+13.3	+13.3	36.....	-12.4	-18.8			
						Total ¹	763.8	1,177.4

¹ The total is the sum of all the deviations both + and -.

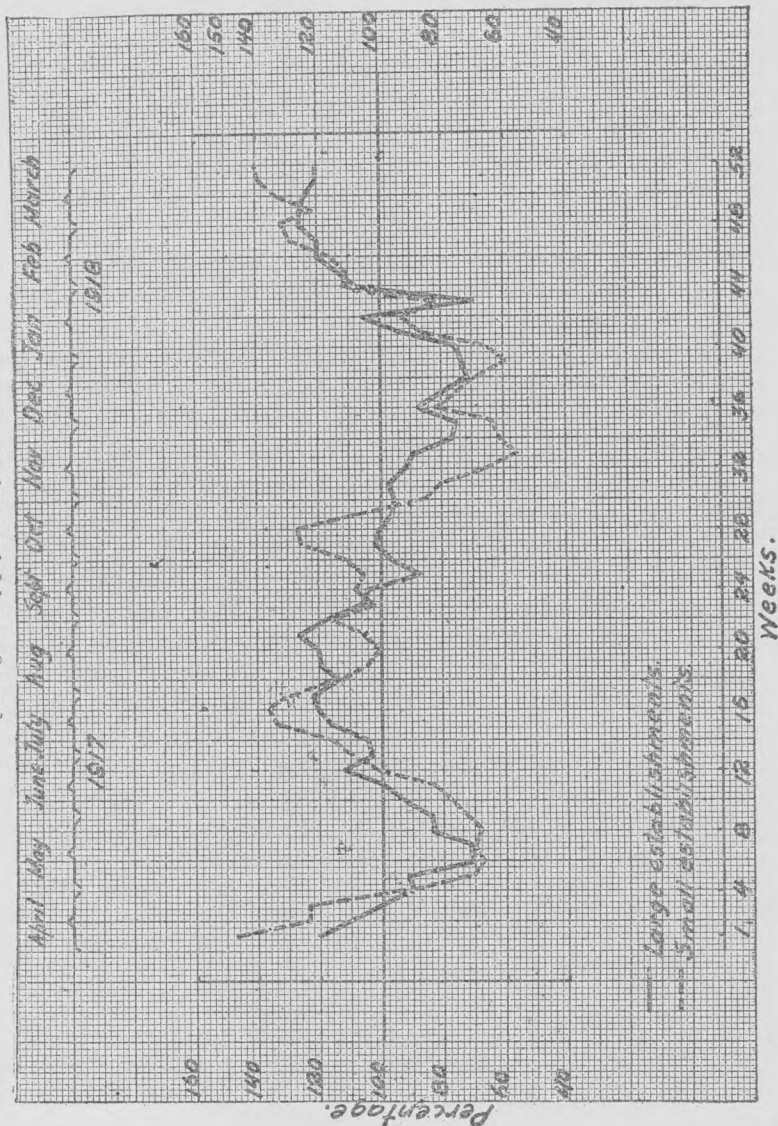
Each of the two groups of shops shown in the above table contained seven establishments. The combined annual pay roll for all productive labor was \$1,535,819, for the seven large shops and \$282,462 for the seven small shops, giving an average annual expenditure on labor per large and small shop, of \$219,402 and \$40,352, respectively. The aggregates of percentage deviations from the average for the year were 763.8 for the large shops and 1,177.4 for the small

ones. The employment deviations may thus be said to have been about 54 per cent greater in the small than in the large shops.

As just shown, the regularity of employment is greater in the larger establishments. Inasmuch as the few large shops employ

Chart B.—Comparative regularity of employment in large and small establishments, shown in percentages of average weekly pay roll, for all productive labor for each group, for the year ending April 1, 1918.

[Average weekly pay roll for year=100.



the major part of the workers of the industry, it seemed interesting to compile a summary table showing the proportion of workers employed in certain groups of firms having each classified amount of deviation from employment regularity. Such a summary is presented in Table 9.

TABLE 9.—PROPORTION OF WORKERS EMPLOYED IN CERTAIN GROUPS OF FIRMS HAVING EACH CLASSIFIED AMOUNT OF DEVIATIONS FROM EMPLOYMENT REGULARITY, YEAR ENDING APR. 1, 1918.

Classified amount of weekly deviations from the yearly average (100).	Number of firms.	Proportion of employees.	
		Number.	Per cent.
Under 700.....	3	1,548	46.5
700 and under 900.....	1	125	3.7
900 and under 1,100.....	1	383	11.5
1,100 and under 1,300.....	6	631	18.9
1,300 and under 1,500.....	3	190	5.7
1,500 and under 1,800.....	5	355	10.6
1,800 and over.....	2	103	3.1
Total.....	21	3,335	100.0

About one-half of the workers of the industry were employed in establishments which, as indicated by the aggregates of deviations from the average, had the more regular employment. The deviations in these shops were less than 900 points. Slightly less than one-third of the total employed worked in establishments which had a lesser regularity, namely, from 900 and under 1,300 deviation points. About one-fifth of the workers were subjected to a very irregular employment, as indicated by annual aggregates of deviations from the average of 1,300 points or more.

The causes responsible for the relatively greater regularity of employment in the larger shops are apparent. Their management is, as a rule, more efficient and far-sighted. They realize more clearly the disadvantage of irregular employment which diminishes the efficiency of the organization by causing a high labor turnover and increases the burden of overhead costs. Furthermore, being financially stronger, they are not at the mercy of the retailer as are the little employers who, for the fear of losing orders, seldom endeavor to exact reasonably long delivery dates.

Table 10 shows the comparative regularity of employment in four of the principal occupations of the industry.

TABLE 10.—COMPARATIVE REGULARITY OF EMPLOYMENT IN FOUR OF THE PRINCIPAL OCCUPATIONS OF THE INDUSTRY, SHOWN BY THE PERCENTAGE THAT THE AMOUNT OF EACH WEEKLY PAY ROLL IS MORE OR LESS THAN THE AVERAGE WEEKLY PAY ROLL FOR ALL PRODUCTIVE LABOR, FOR THE YEAR ENDING APR. 1, 1918.

Week No.	Per cent of deviations each week from the average for the year of—				Week No.	Per cent of deviations each week from the average for the year of—			
	Cutters.	Sample makers.	Pressers.	Operators.		Cutters.	Sample makers.	Pressers.	Operators.
1.	+14.5	+39.0	+25.9	+32.5	28.	- 1.2	- 9.2	- 1.0	+12.9
2.	+ 5.5	+ 1.4	+ 3.2	+12.2	29.	- 4.8	- 2.6	- 7.2	+ 5.3
3.	+ 2.6	+ 8.5	- 7.4	- 7.6	30.	+ 2	+ 7.4	-12.3	- 7.0
4.	+ 2.0	+10.7	-11.3	-38.8	31.	- 3.5	+20.7	-13.1	- 7.7
5.	- 2.3	+ 9.3	-28.1	-29.1	32.	- 9.1	+19.6	-19.4	-18.4
6.	- 1.4	+12.1	-24.7	-59.0	33.	-12.0	+25.2	-25.2	-46.0
7.	- 4.4	+ 8.3	-24.1	-44.9	34.	- 9.3	+32.4	-25.8	-60.9
8.	- 1.6	+ 7.0	-21.9	-25.8	35.	-12.3	+29.3	-28.3	-64.2
9.	- 1.1	+ 9.9	-20.0	-33.3	36.	- 8.9	+24.6	-24.7	-35.5
10.	+ 8	+ 5.0	-13.7	-19.4	37.	-11.9	+13.6	-27.3	-45.4
11.	+ 4	+ 3.1	- 9.7	+ 4.4	38.	-16.3	+ 1.9	-35.9	-52.2
12.	+ 2.5	- 2.1	+ 1.0	+22.8	39.	- 6.9	+ 3.0	-34.4	-50.6
13.	+ 5.1	- 7.7	- 4.3	+13.6	40.	+ 2	+ 1.0	-17.1	-50.2
14.	+12.1	+ 8.0	+ 7.9	+ 5.9	41.	+ 8.4	- 1.7	- 6.3	-12.0
15.	+12.0	-18.2	+19.6	+35.5	42.	+ 2.2	+28.3	- 3.6	+11.3
16.	+16.3	-18.9	+18.9	+46.8	43.	+ 5	-22.1	-14.0	-30.0
17.	+11.9	-15.5	+27.7	+45.9	44.	+ 5.1	-20.3	+20.5	+23.4
18.	- 6.4	- 8.6	+ 5.0	+28.3	45.	+ 5.1	-14.2	+24.3	+36.2
19.	- 1.2	-13.7	+19.6	+24.7	46.	+ 3.9	-13.9	+28.8	+45.0
20.	- 4.4	-14.3	+12.1	+29.4	47.	+ 2.0	- 9.3	+36.8	+54.8
21.	- 2.9	-12.1	+16.9	+32.3	48.	+ 4.5	- 8.3	+40.2	+51.9
22.	- 1.5	-11.0	+22.3	+23.3	49.	+ 2.0	- 8.3	+36.0	+44.0
23.	+ 2.1	-13.0	+13.1	- 1.4	50.	+ 4.7	-10.4	+30.0	+43.0
24.	- 8	-12.3	+10.8	-13.0	51.	+ 6.1	- 7.6	+33.4	+43.6
25.	-14.1	-25.1	-18.5	-23.0	52.	+ 4.2	+ 1.3	+23.4	+41.8
26.	- 5.1	-18.9	- 2.4	- 4.6					
27.	+ 4.8	-13.0	+ 4.3	+ 9.7					
					Total ¹ .	281.1	662.9	963.4	1,560.5

¹ The total is the sum of all the deviations both + and -.

The figures for cutters, pressers, and operators shown in the table above were based upon the pay-roll records of 10 identical establishments. The figures for the sample makers were based upon the records of 7 firms each of which was included among the 10 establishments upon whose pay-roll records the figures of the extent of employment regularity in the other occupations were based.

Of the four occupations, the cutters, with an aggregate of percentage deviations of 281.1 from the average, appear to have had the most regular employment. With the cutters as a basis of comparison—100 per cent—the relative irregularity of employment was 236 per cent in the sample making department, 343 per cent in the pressing department, and 555 in the operating branches of the establishments. It may thus be seen that of the occupations enumerated the operators had the least regular employment.

The causes of these differences in the regularity of employment of the various occupations within the same establishments lie in the following facts: (1) The cutters, pressers, and sample makers are, as a rule, employed by the week, and are therefore not laid off as readily

as are the operators who, as a rule, are pieceworkers; (2) the first three occupations require a relatively greater amount of skill, and employees engaged in them are therefore not so easily replaced as are the operators.

INDIVIDUAL EARNINGS AND OPPORTUNITIES FOR EMPLOYMENT.

Table 11, which is based upon the hours actually worked and wages earned, shows the average hourly, weekly, and annual earnings for each of the occupations, by sex.¹ The table is based upon the records of the larger shops of the trade which were able to furnish data regarding the actual hours worked by each of their employees. These shops employed approximately one-half of the total of the workers of the industry. Inasmuch as the larger shops pay, as a rule, somewhat better rates of wages than the smaller shops, the figures presented in the table may be considered slightly above the average.

TABLE 11.—ACTUAL AVERAGE EARNINGS PER HOUR, WEEK, AND YEAR FOR THE YEAR ENDING APR. 1, 1918, CLASSIFIED BY OCCUPATIONS AND SEX.

Occupation and sex.	Number of firms.	Number of work-ers.	Average earnings per—		
			Hour.	Week (48 hours).	Year (2,270 hours). ²
Operators, male.....	4	235	\$0.435	\$20.88	\$987.45
Operators, female.....	4	701	.274	13.15	621.98
Pressers, male.....	5	197	.446	21.41	1,012.42
Pattern graders, male.....	4	9	.590	28.32	1,339.30
Cutters, male.....	8	198	.470	22.56	1,066.90
Cutters, lining, etc., male.....	7	49	.376	18.04	853.52
Sample makers, male.....	6	22	.546	26.21	1,239.42
Finishers, skilled, male.....	4	22	.396	19.01	898.92
Finishers, skilled, female.....	4	531	.252	12.10	572.04
Finishers, unskilled, female.....	6	130	.224	10.75	508.48
Examiners, male.....	7	26	.578	27.74	1,312.06
Examiners, female.....	5	13	.316	15.17	717.32
Bushelers, male.....	4	15	.426	20.45	967.02
Bushelers, female.....	4	21	.264	12.67	599.28
Trimmers, assorters, and assemblers, male.....	4	15	.326	15.65	740.02
Trimmers, assorters, and assemblers, female.....	8	68	.222	10.66	503.94
Button makers, male.....	1	3	.210	10.08	476.70
Button makers, female.....	3	9	.203	9.74	460.81
Button sewers and markers, female.....	4	56	.260	12.48	590.20
Cleaners and label sewers, female.....	6	26	.187	8.98	424.49
Foremen.....	7	50	.660	31.68	1,498.20
Forewomen.....	7	20	.346	16.61	785.42
Buttonhole makers, male.....	3	4	.481	23.09	1,091.87
Buttonhole makers, female.....	8	35	.243	11.66	551.61

¹ Since the completion of this investigation increases in wage rates amounting to from 10 to 12 per cent have been granted to the employees.

² The number of annual hours of labor was arrived at by multiplying the prevailing hours of work (48) by the annual number of weeks (52) and deducting 56 hours for seven legal holidays, 48 hours, or one working week, for an annual vacation, and 122 hours (about 5 per cent of total working time) for temporary disability. The allowance for temporary disability was based upon the actual records of one of the larger firms, which record showed a percentage of time lost by reason of temporary disability of slightly below 5

Of the numerically strong male occupations the cutters had the most favorable earning opportunity, the average earnings being \$1,066.90 per annum. Pressers showed an annual income of \$1,012.42. Male operators earned \$987.45. The average annual income of female operators was \$621.98, which is considerably below the earnings of male workers in the same occupation. Female skilled finishers, the second largest group of female workers in the trade, earned an average of \$572.04 per year. The annual incomes of all of the other principal occupations are shown in the last column of the table.

Table 12 shows, for 21 establishments, the number and per cent of workers earning each classified amount per annum. These figures represent the actual earning opportunities offered by the industry, inasmuch as the earnings of identical individuals appearing in different shops were combined.

TABLE 12.—NUMBER AND PER CENT OF WORKERS EARNING EACH CLASSIFIED
1918 '21

Occupation.	Number of workers earning each classified amount.													
	Under \$100	\$100 to \$199	\$200 to \$299	\$300 to \$399	\$400 to \$499	\$500 to \$599	\$600 to \$699	\$700 to \$799	\$800 to \$899	\$900 to \$999	\$1,000 to \$1,199	\$1,200 to \$1,399	\$1,400 to \$1,599	\$1,600 and over.
MALES.														
Operators..... ^c	202	104	71	60	45	54	41	56	70	71	95	56	45	40
Pressers.....	123	54	38	26	28	24	22	25	22	54	98	40	5	3
Cutters.....	73	36	29	26	9	10	10	9	13	22	55	37	7	2
Sample makers.....	10	5	9	2	3	2	1	1	2	5	12	20	2	1
Foremen.....	3	1	1	1	2	2	1	1	3	1	4	14	10	25
Lining, canvas, and assistant cutters.....	19	12	5	3	3	.....	2	5	3	3	6	2	.....	.....
Finishers, skilled.....	19	2	5	4	.....	5	6	3	1	1	3	1	1	1
Examiners.....	2	2	3	.....	.....	2	2	.....	.....	.....	8	5	8	10
Busheles.....	6	3	5	1	1	1	.....	1	3	1	6	1	.....	.....
Pattern graders.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	8	2	4
Trimmers, assorters, and assemblers.....	9	2	2	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....
Button makers.....	9	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buttonhole makers.....	2	1	.....	.....	2	1	.....	1	1	1	.....	2	.....	.....
Total.....	474	226	168	124	94	102	85	102	118	159	288	186	80	86
FEMALES.														
Operators.....	389	159	87	59	97	109	87	46	19	13	9	.....	.....	.....
Finishers, skilled.....	407	134	79	86	104	130	70	37	9	9	6	.....	1	.....
Button sewers and markers.....	179	28	26	8	27	21	5	1	2	.....	1	.....	1	.....
Finishers, unskilled....	88	19	24	17	15	13	3	.....	1	1	.....	.....	.....	.....
Cleaners and label sewers	61	13	8	5	8	5	.....	.....	.....	.....	.....	.....	.....	.....
Trimmers, assorters, and assemblers.....	39	6	7	6	17	19	7	2	4	.....	.....	.....	.....	.....
Buttonhole makers.....	12	7	4	6	3	7	6	2	.....	.....	.....	.....	.....	.....
Examiners.....	10	6	1	2	2	3	2	3	1	1	2	.....	.....	.....
Forewomen.....	.....	2	.....	1	1	2	3	6	9	2	2	.....	1	.....
Button makers.....	13	3	1	4	3	3	1	.....	.....	.....	.....	.....	.....	.....
Busheles.....	6	4	2	1	3	5	2	1	1	1	.....	.....	.....	.....
Total.....	1,195	381	239	195	280	317	186	98	46	27	20	.....	3	.....
Grand total.....	1,669	607	407	319	374	419	271	200	164	186	308	186	83	86

AMOUNT IN SPECIFIED PRINCIPAL OCCUPATIONS DURING THE YEAR ENDING APR. 1, (FIRMS).

Per cent of workers earning each classified amount.														Total for year.		Average annual earnings.	
Under \$100	\$100 to \$199	\$200 to \$299	\$300 to \$399	\$400 to \$499	\$500 to \$599	\$600 to \$699	\$700 to \$799	\$800 to \$899	\$900 to \$999	\$1,000 to \$1,199	\$1,200 to \$1,399	\$1,400 to \$1,599	\$1,600 and over.	Total.	Workers.		Earnings.
20.0	10.3	7.0	5.9	4.5	5.3	4.1	5.5	6.9	7.0	9.5	5.5	4.5	4.0	100.0	1,010	\$624,174.00	\$617.99
22.1	9.6	6.8	4.6	5.0	4.3	3.7	4.5	3.9	9.6	17.4	7.1	.9	.5	100.0	562	328,835.39	585.12
21.5	10.7	8.8	7.7	2.7	2.9	2.9	2.7	3.8	6.5	16.2	11.0	2.0	.6	100.0	338	202,007.37	597.63
13.3	6.7	12.0	2.7	3.9	2.7	1.3	1.3	2.7	6.7	16.0	26.7	2.7	1.3	100.0	75	58,228.59	776.38
....	4.4	1.5	1.5	2.9	2.9	1.5	1.5	4.4	1.5	5.9	20.6	14.7	36.7	100.0	68	95,390.21	1,402.80
30.1	19.0	7.9	4.8	4.8	....	3.2	7.9	4.8	4.8	9.5	3.2	....	....	100.0	63	25,832.15	410.03
36.6	3.8	9.6	7.7	....	9.6	11.6	5.8	1.9	1.9	5.8	1.9	1.9	1.9	100.0	52	22,660.68	435.78
4.8	4.8	7.1	....	....	4.8	4.8	....	....	....	19.0	11.9	19.0	23.8	100.0	42	49,916.99	1,188.49
20.6	10.3	17.2	3.5	3.5	3.5	....	3.5	10.3	3.5	20.6	3.5	....	....	100.0	29	15,298.05	527.52
....	....	....	6.7	....	....	....	....	....	....	53.3	13.3	26.7	....	100.0	15	20,837.78	1,389.18
60.0	13.3	13.3	....	....	6.7	....	....	....	....	6.7	....	....	....	100.0	15	2,796.10	186.41
75.0	16.7	....	....	8.3	....	....	....	....	....	....	....	....	....	100.0	12	1,265.27	105.44
18.2	9.1	....	....	18.2	9.1	....	9.1	9.1	9.0	....	18.2	....	....	100.0	11	6,728.82	611.71
20.7	9.9	7.3	5.4	4.1	4.5	3.7	4.5	5.1	6.9	12.6	8.1	3.5	3.7	100.0	2,292	1,453,971.40	634.37
36.2	14.8	8.1	5.5	9.0	10.2	8.1	4.3	1.8	1.2	.8	....	....	....	100.0	1,074	311,999.41	290.50
38.0	12.5	7.3	8.2	9.5	12.1	6.5	3.4	1.0	.8	.6	....	.1	....	100.0	1,072	301,308.53	281.07
59.8	9.4	8.7	2.7	9.0	7.1	1.7	.3	.7	....	.3	....	.3	....	100.0	299	51,531.30	172.35
48.6	10.5	13.2	9.4	8.3	7.2	1.6	....	.6	.6	....	....	....	....	100.0	181	35,715.39	197.32
61.0	13.0	8.0	5.0	8.0	5.0	....	....	....	....	....	....	....	....	100.0	100	13,765.32	137.65
30.6	6.1	7.2	6.1	17.3	19.4	7.2	2.0	4.1	....	....	....	....	....	100.0	98	33,354.83	340.36
25.5	14.9	8.5	12.8	6.4	14.9	12.8	4.2	....	....	....	....	....	....	100.0	47	15,299.56	325.52
30.3	18.1	3.0	6.1	6.1	9.1	6.1	9.1	3.0	3.0	6.1	....	....	....	100.0	33	12,250.37	371.22
....	6.9	....	3.5	3.5	6.9	10.3	20.7	31.0	6.9	6.9	....	3.4	....	100.0	29	21,840.02	753.10
46.5	10.7	3.6	14.2	10.7	10.7	3.6	....	....	....	....	....	....	....	100.0	26	6,276.42	224.16
23.1	15.4	7.7	3.8	11.6	19.3	7.7	3.8	3.8	3.8	....	....	....	....	100.0	28	9,813.93	377.46
40.0	12.8	8.0	6.5	9.4	10.6	6.2	3.3	1.5	.9	.7	....	.1	....	100.0	2,987	813,155.08	272.23
31.6	11.5	7.7	6.0	7.1	8.0	5.2	3.8	3.1	3.5	5.9	3.5	1.5	1.6	100.0	5,279	2,267,126.48	429.27

Only 27.9 per cent of the male employees and 0.8 per cent of females actually earned \$1,000 or over per annum. The respective percentages of males and females who earned \$800 per annum or over were 39.9 and 3.2. The great demand of the industry for casual labor is shown by the fact that 37.9 per cent of the males and 60.8 per cent of the females earned less than \$300 per year.

Table 13 is similar to the one last presented, but shows the number and per cent of workers employed each classified number of weeks.

TABLE 13.—NUMBER AND PER CENT OF WORKERS EMPLOYED EACH CLASSIFIED ENDING APR. 1,

Occupation.	Number of workers employed each classified number of weeks.													
	1	2	3	4	Over 4 and up to 9 incl.	Over 9 and up to 14 incl.	Over 14 and up to 19 incl.	Over 19 and up to 24 incl.	Over 24 and up to 29 incl.	Over 29 and up to 34 incl.	Over 34 and up to 39 incl.	Over 39 and up to 44 incl.	Over 44 and up to 49 incl.	Over 49 and up to 52 incl.
MALES.														
Operators.....	47	49	38	42	82	65	65	43	35	43	42	50	108	136
Pressers.....	31	15	16	26	67	28	23	13	19	17	12	17	25	140
Cutters.....	11	21	11	11	33	28	17	13	6	9	8	7	8	99
Sample makers.....	2	4	2	.....	8	9	2	3	.....	1	2	3	5	29
Foremen.....	.....	.....	.....	.....	.....	3	.....	1	2	.....	2	1	1	43
Lining, canvas, and assistant cutters.....	4	1	2	2	12	8	4	3	3	2	1	.....	6	11
Finishers, skilled.....	1	3	2	2	9	3	3	1	.....	3	.....	3	1	9
Examiners.....	.....	.....	1	1	2	2	1	.....	.....	.....	.....	1	1	22
Bushelers.....	1	1	.....	1	4	3	2	2	1	1	1	1	1	9
Pattern graders.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	13
Trimmers, assorters, and assemblers.....	.....	3	.....	4	2	3	.....	.....	.....	1	1	.....	.....	1
Button makers.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	1
Buttonhole makers.....	.....	.....	.....	.....	2	.....	.....	2	.....	.....	1	.....	2	2
Total.....	100	94	72	89	221	156	117	81	66	77	70	84	158	515
FEMALES.														
Operators.....	35	36	26	21	83	42	45	21	27	31	25	42	43	136
Finishers, skilled.....	61	53	40	43	146	90	60	28	43	43	40	47	66	159
Button sewers and markers.....	24	30	14	13	64	19	3	8	10	7	1	5	9	15
Finishers, unskilled.....	12	12	9	6	30	25	13	3	10	12	10	12	9	18
Cleaners and label sewers.....	6	6	4	1	8	6	1	3	.....	.....	1	.....	.....	15
Trimmers, assorters, and assemblers.....	4	2	3	3	7	9	2	1	5	1	1	6	3	32
Buttonhole makers.....	1	2	.....	2	2	3	1	1	1	1	3	.....	2	11
Examiners.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	1	1	5
Forewomen.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	13
Button makers.....	1	.....	.....	.....	2	1	.....	.....	.....	.....	1	.....	.....	8
Bushelers.....	.....	.....	1	.....	4	2	.....	.....	1	.....	.....	.....	2	4
Total.....	144	141	97	89	347	197	125	65	97	95	84	113	136	416
Grand total.....	244	235	169	178	568	353	242	146	163	172	154	197	294	931

NUMBER OF WEEKS IN SPECIFIED PRINCIPAL OCCUPATIONS, DURING THE YEAR 1918 (19 FIRMS).

Per cent of workers employed each classified number of weeks.														Total.		Average weeks per worker.	
1	2	3	4	Over 4 and up to 9 incl.	Over 9 and up to 14 incl.	Over 14 and up to 19 incl.	Over 19 and up to 24 incl.	Over 24 and up to 29 incl.	Over 29 and up to 34 incl.	Over 34 and up to 39 incl.	Over 39 and up to 44 incl.	Over 44 and up to 49 incl.	Over 49 and up to 52 incl.	Total.	Workers.		Weeks.
5.6	5.8	4.5	4.9	9.7	7.7	7.7	5.1	4.1	5.1	5.0	5.9	12.8	16.1	100.0	845	21,843	25.8
6.9	3.3	3.6	5.8	14.9	6.2	5.1	2.9	4.2	3.8	2.7	3.8	5.6	31.2	100.0	449	12,302	27.4
3.9	7.5	3.9	3.9	11.7	10.0	6.0	4.6	2.1	3.2	2.8	2.5	2.8	35.1	100.0	282	7,806	27.6
2.9	5.7	2.9	.....	11.4	12.8	2.9	4.3	.....	1.4	2.9	4.3	7.1	41.4	100.0	70	2,239	32.0
6.8	1.7	3.4	3.4	20.3	13.5	6.8	5.1	5.1	3.4	1.7	.....	10.2	18.6	100.0	53	2,530	47.2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59	1,350	22.9
2.5	7.5	5.0	5.0	22.5	7.5	7.5	2.5	.....	7.5	.....	7.5	2.5	22.5	100.0	40	912	22.9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31	1,232	39.7
3.6	3.6	.....	3.6	14.2	10.7	7.1	7.1	3.6	3.6	3.6	3.6	3.6	32.1	100.0	28	781	28.0
20.0	.....	.....	26.6	13.3	20.0	.....	.....	.....	.....	6.7	6.7	.....	86.6	100.0	15	726	48.4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.7	100.0	15	194	12.8
.....	.....	.....	.....	.....	75.0	.....	.....	.....	.....	.....	.....	.....	25.0	100.0	4	86	21.5
.....	.....	.....	.....	.....	22.2	.....	22.2	.....	.....	11.2	.....	22.2	22.2	100.0	9	292	32.4
5.3	4.9	3.8	4.7	11.6	8.2	6.2	4.3	3.5	4.0	3.7	4.4	8.3	27.1	100.0	1,900	52,263	27.5
.....
5.7	5.9	4.2	3.4	13.5	6.9	7.3	3.4	4.4	5.1	4.1	6.9	7.0	22.2	100.0	613	16,032	26.1
6.6	5.8	4.2	4.7	15.9	9.8	6.5	3.1	4.7	4.7	4.4	5.1	7.2	17.3	100.0	919	21,476	23.4
10.8	13.5	6.3	5.9	28.8	8.6	1.4	3.6	4.5	3.2	.5	2.2	4.0	6.7	100.0	222	2,984	13.4
6.6	6.6	5.0	3.3	16.6	13.8	7.2	1.7	5.5	6.6	5.5	6.6	5.0	10.0	100.0	181	3,734	20.6
11.7	11.7	2.9	2.0	15.7	11.7	2.0	5.9	.....	.....	2.0	.....	.....	29.4	100.0	51	1,067	20.9
5.1	2.5	3.8	3.8	8.9	11.4	2.5	1.2	6.3	1.3	1.3	7.6	3.8	40.5	100.0	79	2,495	31.6
3.3	6.7	.....	6.7	6.7	10.0	3.3	3.3	3.3	3.3	10.0	.....	6.7	36.7	100.0	30	960	32.0
.....	.....	.....	.....	11.1	.....	.....	.....	.....	.....	11.1	11.1	11.1	55.6	100.0	9	394	43.8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.7	.....	6.7	86.6	100.0	15	758	50.5
7.7	.....	.....	.....	15.4	7.7	.....	.....	.....	.....	7.7	.....	.....	61.5	100.0	13	475	36.5
.....	7.1	.....	.....	28.6	14.3	.....	.....	7.1	.....	.....	.....	14.3	28.6	100.0	14	384	27.4
6.7	6.6	4.5	4.1	16.2	9.2	5.8	3.0	4.5	4.4	3.9	5.3	6.4	19.4	100.0	2,146	50,759	23.7
6.0	5.8	4.2	4.4	14.0	8.7	6.0	3.6	4.0	4.3	3.8	4.9	7.3	23.0	100.0	4,046	103,022	25.5

The great demand for short-time workers is clearly shown by the fact that 30.3 per cent of all males and 38.1 per cent of all females were employed nine weeks or less.

Table 14, which is based upon the detailed figures presented in Tables 11 and 13, shows the number and per cent of each occupational group more or less permanently employed (from 44 to 52 weeks) and average annual incomes based upon average hourly earnings.

TABLE 14.—NUMBER AND PER CENT OF MALES AND FEMALES IN EACH OCCUPATION WHO ARE PERMANENTLY EMPLOYED AND AVERAGE ANNUAL INCOMES BASED UPON AVERAGE HOURLY EARNINGS.

Occupation.	Males.			Females.		
	Employed 44 to 52 weeks.		Average annual earnings.	Employed 44 to 52 weeks.		Average annual earnings.
	Num-ber.	Per cent.		Num-ber.	Per cent.	
Operators.....	244	28.9	\$920 to \$1,086	179	29.2	\$580 to \$684
Pressers.....	165	36.8	943 to 1,113			
Cutters.....	107	37.9	994 to 1,173			
Sample makers.....	34	48.5	1,154 to 1,363			
Trimmers.....	44	83.0	1,395 to 1,647	225	93.3	732 to 864
Lining and canvas cutters.....	17	28.8	795 to 884			
Finishers, skilled.....	10	25.0	837 to 989	24	24.5	533 to 629
Finishers, unskilled.....				27	15.0	474 to 559
Examiners.....	23	74.2	1,222 to 1,442	15	66.7	668 to 789
Bushelers.....	10	35.7	901 to 1,063	35	42.9	558 to 659
Pattern graders.....	13	86.6	1,247 to 1,473			
Trimmers, assorters, assemblers.....	1	6.7	690 to 814	13	44.3	470 to 554
Button makers.....	1	25.0	445 to 524	6	61.5	430 to 506
Buttonhole makers.....	4	44.4	1,017 to 1,201	14	43.4	514 to 606
Cleaners, label sewers.....				8	29.4	396 to 467
Button sewers and markers.....				6	10.7	550 to 649
Total.....	673			552		

Among the male employees 37.9 per cent of the cutters, 36.8 per cent of the pressers, and 28.9 per cent of the operators were permanently employed. The respective maximums of average annual earnings of each of these occupations were \$1,173, \$1,113, and \$1,086; 29.2 per cent of the female operators were permanently employed and earned a maximum annual average amount of \$684. About one-fourth of the male and female skilled finishers were permanently employed. The maximum average earnings were \$989 for male and \$629 for female skilled finishers.

METHODS OF EMPLOYMENT REGULARIZATION.

Because of their comparatively greater employment regularity, a brief inquiry was made of the manufacturing and selling policies of firms Nos. 10, 17, and 19. The relative importance of this small group of firms may be judged by the fact that its aggregate employed was more than two-fifths of the total of the entire industry.

The figures showing the relative regularity of employment of each of these establishments are given in Table 7. In any analysis

of those figures, however, one must keep in mind the extent of "outside" manufacturing, or contracting, resorted to. To minimize the inconvenience and cost of frequent short-time expansions of their permanent manufacturing organizations each one of the firms employed contractors during the few rush weeks of the year. Thirty-four per cent of the manufacturing labor of firm No. 17, 17 per cent of firm No. 19, and 7 per cent of firm No. 10, was done in outside shops.

The weekly labor expenditures of the outside shops were not included in the corresponding pay-roll period amounts which, for the purpose of the survey, constituted the measure of employment regularity. Such an inclusion, although very desirable, was impossible because of the total lack in the contractors' shops of reliable weekly pay-roll records. Had such outside amounts been included the regularity of employment of each of these firms, but particularly of firm No. 17, would have been far less than that shown in this report.

Generally speaking, four distinct methods or policies are resorted to in Cleveland for the regularization of employment. These are: (1) The creation, through extensive advertising, of a permanent demand for a few styles, the steadiness of which demand permits manufacturing in advance of orders; (2) the manufacture of fillers, such as wash skirts, during the slack seasons of the year; (3) the insistence upon reasonably long delivery dates, which will not necessitate extensive employment of casual help; (4) engaging in some contract work for an allied trade, such as that of men's clothing, during the dull seasons of the year.

The precise extent to which each of the regularization methods mentioned are resorted to by each of the three firms is shown immediately below.

Firm No. 10.—The principal methods employed by this firm for the regularization of its employment are: (1) Careful planning of its manufacturing activities with a view to the average capacity of its manufacturing force; (2) the organization of sales in a manner enabling some manufacturing in advance of orders; (3) the making of wash skirts, as an employment filler, during the dull periods which follow the busy spring season of the year.

The following is a concise outline of a statement furnished by this company, indicating its principal employment regularization policies:

The fundamental principle of employment regularization in our factory is that of planning the work so that we may know sufficiently long in advance how much work there is to do, how much material is needed, and how many persons will be necessary to accomplish the scheduled task.

Our materials are purchased fully six months before the official opening of the seasons, after first determining the ability of the sales organization to sell a given number of garments and of the manufacturing division to make these garments within a given space of time.

About six weeks before the opening of the spring season, about December 1, and of the fall season, about April 1, the exact number of models and approximate prices are determined upon. The style committee then adopts garments to conform with the schedule laid out, each adoption carrying with it the manufacture of the necessary duplicates.

The preparatory work before the actual beginning of the season engages approximately 50 per cent of the employees of the factory. During the slack period following the fall season the remaining 50 per cent receive their yearly vacation of one week with full pay and a lay off of from one to two weeks. The slack period following the spring season is occupied by the manufacture of wash skirts and there is therefore no lay off whatever during this dull period of the year.

We plan in advance when to begin the fall season and are able to see approximately when the spring season will draw to a close. We plan, therefore, on manufacturing just enough wash skirts during the slack period to occupy our manufacturing division to capacity, with a definite understanding that we shall make so many wash skirts and no more, also that these garments must be in the cutting room, and completed, by a certain date, in order to give way to the fall production which follows immediately after.

As soon as we are able to observe the reception of the various numbers of the line by the retailers, we anticipate by manufacturing in advance, placing into work enough garments of each style to make possible their being manufactured economically. This makes it possible for us to start the season earlier than we would had we been waiting for the orders to come in.

Firm No. 17.—The main employment regularization policy of this firm consists of extensive advertising of a few styles with the consequent creation of a demand, the steadiness of which permits considerable manufacturing in advance of sales. This policy was begun in 1915 and resulted in the popularization of what was then a \$10 coat and \$16.75 suit, now sold at \$18.75 and \$25.50, respectively. The development of these specials was accompanied by a significant decrease in the number of styles.

The firm uses comprehensive planning methods for the purpose of arriving at reliable estimates of the probable popularity of certain styles. These estimates are arrived at by a close study of the sales records of the past seasons. The manufacture of definite quantities of certain styles is thus decided upon before the commencement of each season. The output decided upon is then apportioned among the members of the sales force in accordance with the actual sales of each person during the past seasons. Members of the selling organization are instructed to refuse orders the delivery dates of which do not fit in with the normal weekly or monthly output capacity of the manufacturing branch of the business. The development and popularization of specials, in the manner indicated above, enables the firm to exact satisfactory delivery dates.

During the dull seasons of the year the firm manufactures fillers of its own and does some contract work for allied trades. During the slack period of 1915-1917 it produced about 60,000 wash skirts

and made some men's overcoats. Recently it began to manufacture considerable amounts of military clothing. The latter kind of work, however, requires the organization of special shops and can not therefore serve as an employment filler for the regular working force.

The establishment uses the ordinary annual vacations of the employees as an employment regularizer. Instead of granting vacations indiscriminately throughout the year an endeavor is made to confine individual vacations to the dull periods of the business.

Firm No. 19.—Realizing the advantages of a permanent and steady working force, this firm, during the dull seasons of the past year, manufactured men's overcoats for one of the men's clothing firms of this city. It also made some clothing for the Army. Thus the principal reason for its regularity of employment was the doing of contract work for allied trades.

During the coming year it plans on developing an employment filler in its own line, preferably wash skirts, which can be manufactured in large quantities for stock, when business is dull.

The establishment makes special efforts to educate its sales force to a realization of the necessity of insisting upon properly long delivery dates, which will not require any frequent short-time expansions of the manufacturing personnel.

1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880

SECOND INTERALLIED CONFERENCE ON AFTER-CARE OF DISABLED MEN.

BY N. C. ADAMS.¹

The second annual meeting of the Interallied Conference on the After-care of Disabled Men was held in the Central Hall, Westminster, London, May 20 to 25, 1918, and was attended by upward of eighty delegates in addition to the large number of official representatives of the British Government. The foreign delegates were from Belgium, France, Italy, Portugal, Serbia, Siam, Canada, Australia, South Africa, New Zealand, India, Newfoundland, and the United States. The conference and connected exhibition aroused much public interest and also was daily attended by the King and Queen, or other members of the royal family.

The conference was divided into four sections: I. Pensions and allowances; II. Training; III. Medical treatment; IV. Surgical treatment.

Sections III and IV were attended almost exclusively by the army physicians and surgeons, and Section I by the representatives of the various nations who are concerned with the financial appropriations of the Governments. Section II was the one of most general interest to all delegates, and it is the proceedings of this section to which this report largely refers. The section was presided over by Sir Charles Nicholson, M. P., chairman of the disablement subcommittee of the London War Pensions Committee.

Delegates were impressed at every session of the conference, first by the undeniably serious effort on the part of every nation concerned to solve the problem of rehabilitation in the most just and most humanitarian way, and second, by the humility with which each country acknowledged that as yet, after four years of war, no one was satisfied that an ideal system had been attained, but that makeshifts were better than waiting for an ideal which was certain to be developed.

No unity of practice could be expected among countries differing so widely in tradition, customs, and general characteristics, and while conditions in the United States resemble those in Canada and England, there are still so many points of difference that the individual experiences of those countries probably can benefit our people in a general way only. There are, however, various points

¹ Mr. N. C. Adams was the representative of the United States Department of Labor at the second annual meeting of the Interallied Conference on After-care of Disabled Men, held in London, May 20 to 25, 1918.

on which all the delegates seemed to agree, and these will be briefly stated. It may be well, however, first to make a general statement as to the course pursued with a wounded or maimed man.

The army surgeons, of course, consider each man brought before them with a view to estimating how soon he can be so restored as to be able to return to active service. This is war, and, if the victory is to be won, every man must be utilized to the utmost extent. If the surgeon decides that the wounded man can be put back into the line in a comparatively short time he is retained in the hospital nearest the place where he may be used, or perhaps sent nearer his home; but in either case all his treatment is curative, in order to restore his functions at the earliest moment; it is occupational only for the purpose of awakening his interest, in order that the successful outcome of the curative treatment may be hastened. There is no thought of training his mind or body for any future professional or industrial developments. On the other hand, if the surgeon decides that there is no chance of a man ever being put back into active service, or if the chance is remote, or if, at best, a long course of treatment must be given, the man is sent as far away from the front as possible, where he will be sure of the best treatment and care. Here the man is given every curative treatment, and, as soon as possible, is transferred to one of the orthopedic hospitals, where almost miraculous work is being done. With this orthopedic treatment occupational work is offered, together with every stimulating mental aid which may be safely used. There are many remarkable cases where mental development so acted upon the physical well-being that men who were considered hopelessly invalided have been restored to active service by these modern hospitals. The men who have lost an arm or a leg, or have received wounds which incapacitate them for further army service, are considered with a view to their future welfare, even while undergoing the most intensive medical treatment. And here begins the real "after-care of the disabled." Practically all nations agree that this is the beginning of the crucial period in the treatment of the man who has a new life to face. The greatest care must be taken to prevent the patient from giving up hope of ever again taking his place as a man among men in the battle of life, and it is of the utmost importance that those coming in contact with the men in the hospitals should have developed in the highest degree the faculty of dealing with the individual. Indeed, all the speakers at the conference put the strongest emphasis upon the importance of the psychology of the individual. Even the surgeons seem to be in favor of encouraging the patient to take an interest in his future too soon, that is, while he is still hardly conscious of his real condition—in preference to run-

ning the risk of waiting until the shock caused by full realization shall have sown the seed of despair in his mind. In the young man there is greater hopefulness and less danger of despondency than in the men in the late thirties or the forties, with whom the utmost care must be exercised.

Men convalescing in hospitals are in a peculiarly impressionable state of mind and above all must not be permitted to become depressed and hopeless by being left in idleness. The occupational work which is being done in the hospitals, to avoid this condition and for its curative effect, may develop a latent ability which would suggest to a man some work for which he is really suited. It is frequently found that, left to himself, the man's choice of a vocation after convalescence would be quite an unsuitable one. Hence careful thought and guidance are demanded of those about him. Most men who find themselves disabled appear to have a repugnance for their former trade or profession. The thought of having lost their old-time skill probably makes them feel helpless, but an effort is usually made by advisers to make the men realize that their knowledge of the result to be obtained will quickly enable them to devise new ways of handling tools, or suggest some new way of doing their old work. Much is gained by utilizing the former knowledge and experience of the men. Forty-six per cent of the men fitted with artificial legs or arms at Roehampton Hospital have returned to their old trades or businesses.

Again, it is frequently found that a man who may have always had a strong desire to follow some vocation here finds an opportunity to gratify it. In such cases the gratification experienced is sure to stimulate the man both mentally and physically and to hasten both the return of strength and the obtaining of sufficient skill to pursue the vocation.

Reports from every country indicate that the problem of the one-armed man is the most serious which confronts those who are in charge of the training. The man who has lost one or even both of his legs finds innumerable opportunities for work. In fact the modern artificial legs are so remarkable that many men find themselves handicapped very little, even when they wear two of them. But despite the even more marvelous mechanical construction of some of the artificial arms there are greater limitations to their use, and flexibility of fingers can not be gained, hence the field of work open to men wearing these artificial arms is a narrow one. It has been suggested that occupations suitable for arm cripples be restricted by law to their use so long as there is a sufficient number of men so handicapped to fill them. Accounting work in nearly all its branches is adapted to their capabilities, as is switchboard work and the running of certain machines.

Compelling or forcing a man to choose a certain vocation is to be avoided, although it is often possible to influence him in making his choice while leaving him in the belief that he has chosen of his own volition. Each individual case may be studied in apparently casual interviews. The power of suggestion is recognized as being of great importance in these cases. The effect of example upon men with a tendency to be discouraged is very marked, and at Roehampton there is a group of "post graduates" who have developed the use of their new limbs to a remarkable degree and who by exhibiting their prowess stimulate the men who are timid or so oppressed by their misfortune as to be disinclined to effort.

In the case of young fellows who joined the forces before they had a chance to take professional training much may be done, and in many instances the boy's chosen career need not be disturbed.

The American Y. M. C. A. already has in England an educational secretary who with his staff will do as much educational work as possible with our men while they are resting or training in England before going to France. The association hopes to be able to keep the soldiers thinking about their future under any condition in which they may find themselves. The aim is to follow up this educational work later, and for this purpose the resources of the association have been placed at the disposal of the Army medical authorities.

M. Alleman, chief of the Belgian educational staff at Port Villez, and Surg. Maj. Ferreiro, director of the Portuguese Institute for Disabled Soldiers and Sailors, laid special emphasis upon the psychological treatment. It was agreed by those who participated in the discussions that all the wonderful appliances in existence for helping the maimed man will be of little value if his spirit has not been rejuvenated. It was reiterated that those who do work in hospitals and in the training schools must develop a fraternal spirit of the best kind and that the disabled men should never be permitted to gain the impression that they are objects of pity or of charity. Too much sympathy may be as bad as too little. On the other hand, the fact remains that many of these men will never be able to meet their fellow workmen on common ground and will need encouragement and advice carefully administered so long as they live. This work must for a large part come from voluntary workers who should, however, be in close cooperation with the boards or committees administering the men's affairs.

Just now sentiment is aroused to a high degree, but it is realized that when demobilization comes there will be problems of such importance in determining the economic courses of each country that disabled men will be left to shift for themselves unless the greatest effort is made immediately to establish most satisfactory opportunities for treating, training, and employing them. No effort should be

spared to try out feasible plans and as quickly as possible to find the system which seems most nearly to approach the ideal which all nations are striving to attain.

As to the administration of the various official boards and committees provided for looking after the funds and men, the unanimous opinion expressed at the conference was that the best results probably come from centralization of control and unity of authority. As one delegate remarked, "There is danger in too many advisory committees, who may let the poor man slip between them while they are discussing his case."

So far as can be ascertained the American authorities have decided to provide hospital care and treatment and training in England, France, or Italy for every wounded American soldier whose disabilities are of such a character that there is even a remote likelihood of his being in reasonable time restored to active service on the firing line, or of his being retrained so that he may take one of the innumerable positions behind the lines, where many maimed men (even amputation cases) can be employed, thereby releasing for the front line many physically fit men who are now occupying these clerical or other positions. Only the man who probably can never do active work or for whom a long course of treatment is in store will be sent to America.

In many instances it has happened, in European countries, that when men have been discharged from hospitals where amputations are performed there were no vacancies in the hospitals where artificial limbs are fitted and the men have had a long period of waiting, either at home or in boarding houses, where their surroundings were not such as to encourage them to think in the right way of their future. This course is universally condemned, and an effort should be made to make it unnecessary.

In selecting occupations in which men may be trained, great care should be used to avoid blind alleys—that is, to be certain that there will be jobs waiting for the men in the trades in which they have been trained. In that respect each country has its own particular difficulties and must plan its own work. Much emphasis was laid upon the undesirability of training a man for an immediate job, such as munitions work, under the lure of large wages. He should be led to choose a vocation which will provide for his whole future life. Here again another point must be considered: Each country needs the services of men for work that will cease soon after the War ends.

The relative value of the large and the small training schools was frequently referred to during the discussions, but no speaker cared to make a decisive statement. Certainly in a large school much duplication of appliances and instructors is avoided. On the other hand, it was considered advisable to avoid permitting a disabled man to be

cut off from the rest of the community, and to avoid, if possible, letting him think of himself as of a class apart from his fellow workers. The small training school is sure to furnish more opportunity of mingling with people outside than the large one.

The English and the Italian delegates both bore witness to the difficulties experienced in persuading men to take up training for an agricultural life. Even the men who had come from such pursuits showed a strong disinclination to resume such a quiet existence after the excitement of army life. The Scotch have been rather more inclined than the English to return to the land; especially is this true of the Highlanders.

In England a very determined effort is being made to develop new industries, and especially such as were in prewar time largely controlled by the central powers. The most ambitious attempt at this sort of thing has been made at Brighton, where Mr. Bernard Openheimer is establishing a diamond-cutting factory on a large scale. This is entirely a private enterprise, but has the enthusiastic approval of the Minister of Pensions and other Government authorities. England's control of diamond mining makes this industry of especial interest. At present accommodations have been provided for several hundred men, nearly all of whom have lost a leg, and soon there will be room for 2,000 men, with which number the establishment will become a paying enterprise. Preparations are under way for taking on several thousand men as the industry develops. It is hoped that this will permanently establish this lucrative industry in England. The men start their training with their Government pension supplemented by nearly 50 per cent more from the proprietor, and after a few months their wages begin to be materially increased, so that some men are already earning £3 or £4 (\$14.60 or \$19.47) a week, which is more, in most instances, than their prewar earnings.

In another locality the growing of certain medicinal herbs has been successfully started, the work being done by disabled men.¹

The French and Belgian "estropié" is "toujours militaire," which means that the disabled man is given a choice of trades and the authorities see that he takes training in the trade he chooses. In England he chooses his vocation, or he may elect to learn nothing whatever and to disappear, after convalescence, from the view of everybody in authority but the local pension committee. This power of free choice has hindered somewhat the work of those engaged on reeducation work, but increasing success seems to be following their efforts of late.

¹ For details of this scheme, see p. 205 of the report of the Second Annual Meeting of the Interallied Conference on the After-care of Disabled Men. London, 1918.

PLACEMENT OF MEN AFTER TRAINING.

The authorities may give the men the best of training, but the fact remains that the men themselves must decide what they can or will do, and employers have the last word to say as to what they can or will allow men to do. Just now in the glamour of war sentiment employers may think a handicapped man can do sufficiently well, but later on the employer may become impatient at having his output restricted by slower or less perfect work than he feels his product demands. Hence much depends on the attitude of capital, not only now but particularly after the War.

Nearly every speaker in the section of the conference devoted to training cautioned those in charge of training to keep constantly in mind the placement of men in satisfactory jobs after they are trained. To do this includes the consideration of opportunities for work in every trade—not only immediate work but permanent work which affords opportunities for advancement; that is, there should, as much as possible, be an opportunity for the man, by his individual efforts in increasing his skill, to increase his earning power, thereby adding an incentive to employers to give him work. This means that as far as possible men should be trained for trades in which their pecuniary reward is in proportion to their skill, always, however, keeping in mind the man's physical limitations as well as his intelligence. It would be not only useless but unfair to the disabled man to train him for a job in which he might be tempted constantly to exert himself beyond his physical endurance.

In England the employment exchanges are largely concerned with placement of disabled men after training, and a very decided difference of opinion developed during the conference as to the advisability of this method of procedure. Apparently the members of the local pensions committees, who have to do with the training of disabled men, feel that the employment exchange, perhaps through no fault of its individual members, and quite without realization, but owing to its original purpose, is more concerned with filling vacant jobs and supplying men with work than with considering the men's capabilities. Several speakers bore witness to the fact that trained disabled men have frequently been placed in positions which were far beyond their strength, and that in many instances these men had broken down physically and completely lost heart for keeping on with the struggle to help themselves. Of course these were purely local affairs, and while the employment exchange may be to some extent, as one speaker declared, "a soulless place," it would seem to be possible to develop a sufficient number of local advisers and a sufficient amount of cooperation between those training and those placing men to avoid the catastrophe cited. It is quite possible that

an employment exchange left to itself would be unable to give each individual the proper consideration and to follow up each disabled man for any considerable period, but cooperation and a sufficient number of trained and judicial "aides" could accomplish this. The experience of England, so far as one may judge from a limited study, is that these "aides" are chosen almost entirely from voluntary workers, who must be selected with the utmost care from the large number offering their services.

It must be understood that this conference was entirely under the direction of the Minister of Pensions, and while the Minister of Labor furnished a few speakers there was no opportunity for them to reply to any implied criticism. There seems to have been developed a feeling that employment exchanges in their desire to assist the Government are tempted too often to place men in what is only temporary employment—in munitions plants, for example. The lure of big pay makes the men very willing to accept employment which may be beyond their strength, and is utterly without a future. Men are often confined to one job (very simple in itself, though of vital importance to the work as a whole) which does not give any real training or preparation for permanent work after the War.

The Minister of Labor has in a public address made the statement that something like 63 per cent of the men in the army had the promise of reinstatement in their original employment, and that of the variously estimated number (about 500,000) already released approximately 60 per cent had had that promise fulfilled. No statement is available as to how many retained their old employment after having returned to it disabled, or as to how many have been given positions proportionate to their depleted strength by their old employers, after it has been found that they could not continue their prewar work. The hundreds of thousands of men who have been discharged from the army have formed federations, which in a number of instances have displayed antagonism to the training of men and to the local committees in charge of such training. This is but an example of the "agin the Government" spirit encountered in every country. However, no one can overlook the fact that much wisdom and tact must be displayed in dealing with these questions of the treatment of the ex-soldier. There may be a distinct menace in a federation of dissatisfied, discontented men, with wounded pride and spirit as well as maimed bodies.

HOSPITALS VISITED BY THE DELEGATES.

Four afternoons during the week were devoted to visits to various hospitals in and around London. At the Royal Pavilion in Brighton there are accommodations for 800 men who have suffered amputations of one or more limbs. The men come to this hospital as soon as they

are able to leave the base hospital, but while they still have need of medical treatment, and for the most part they recuperate rapidly in the invigorating sea air. The climate of Brighton is similar to that of Atlantic City. In connection with the Royal Pavilion are the "Queen Mary's Workshops," provided by the Queen to combine training with treatment for the curative effect of industrial work, and here the men have an opportunity to try out almost any vocation which they may fancy or which may be suggested to them by those in charge. In many cases unsuspected latent talent has been developed. The motto of the workshops, "hope welcomes all who enter here," was suggested by Queen Mary at the time of the opening, and certainly the men seen there have every indication of its being a pertinent one. One-armed men, even those whose right arm was gone, were for the most part fitting themselves for bookkeeping or other commercial pursuits, while legless ones were taking preliminary mechanical or electrical training, tailoring, joinery, cabinetmaking, boot and shoe repairing, or rubber work. Mechanical drafting, carving, stained-glass work, designing, etc., are taught in connection with an art school. The workshops tide over that difficult period when a man's wound has so healed that he can be up and about but before the stump has shrunk or assumed its final condition sufficiently to enable him to have even a temporary arm or leg adjusted. From Brighton the men go, as soon as they have reached the stage last mentioned, or as soon thereafter as there is an opening for them, to Roehampton, in the suburbs of London, and there their first artificial limbs are fitted and tried out. It is an anxious time both for those in charge and for the disabled men themselves, as much depends upon the success of these first attempts at using these strange appliances. Much experimenting is crowded into the two, three, or four weeks of a man's stay. The power of example being well recognized, there are usually men assisting at Roehampton who have suffered amputations of various kinds and who have been peculiarly successful in the use of their artificial limbs; these men stimulate the desire and will of the new patient to equal or surpass some other man. Men with their right arms off at the shoulder were playing golf with a sure aim, or chopping wood; men with both arms off were easily guiding a bicycle; and men with both legs gone were having no difficulty in going up and down flights of stairs, and one was riding a bicycle. As one chap who was minus an arm remarked, "here you can always see someone much worse off than yourself." This particular man called my attention to another who was minus a leg as well as an arm. Many of these men had already determined upon their future employment, although the wonderful adaptability discovered in the use of their new limbs frequently leads to a new choice of occupation. The

secretary, Mr. Dudley Myers, is tremendously in earnest in helping the men to make a wise decision. Those who continue the training started at Brighton have here an opportunity of trying out their new limbs in their old work under the guidance of experienced instructors. As the accommodations at Roehampton do not equal the demand, men can remain only until their artificial limbs are found to be working satisfactorily, hence many of them are sent on to other colleges and schools for the further training they may require.

The Richmond Hospital, given over for the most part to South African patients, is more general in its character; and here was seen the treatment of wounds by continuous baths.¹ Occupational work for its curative value is used at this hospital as is also vocational training.

The great military orthopedic hospital at Shepherds Bush, under the control of the War Department, with Col. Sir Robert Jones at its head, was shown to the delegates in all its detail.² The War Office had expressed a very natural anxiety at the prolonged retention of men at the orthopedic centers, but when it was realized that over 70 per cent of the cases were returned to military life it was evident that the patient care that had been devoted to them was justified. The orthopedic hospital is one of the agencies which make it possible for the Ministry of Pensions to make a useful citizen of a disabled soldier. The chief regret is that so many of the deformities which have to be rectified might be avoided if surgeons were more generally instructed in mechanical principles.

The Manor House Orthopedic Hospital at Hampstead has recently been put under the control of the Ministry of Pensions. This hospital is doing for discharged men what the military hospitals do for those still in the service, curative occupational work being continued there. It is privately supported and is equipped with the most modern appliances.

The hospital for shell-shock cases, located at Golders' Green,³ is in charge of Sir John Collie, who is also at the head of the Medical Service Department of the Ministry of Pensions, and who has greatly developed the system of restoration of the disabled. The hospital has lately been the subject of some controversy, as it is proposed to remove shell-shock patients to some other part of the country, where they will not be exposed to the disturbing effects of air raids, and to use Golders' Green for some other purpose.

¹ Described in the papers of Maj. Sandes (p. 435 of the report of the Second Annual Meeting of the Interallied Conference on the After-care of Disabled Men).

² This hospital has been completely described in the paper by Sir Robert Jones on p. 519 of the report of the Second Annual Meeting of the Interallied Conference on the After-care of Disabled Men.

³ Description of this hospital is to be found on p. 242 of the report of the Second Annual Meeting of the Interallied Conference on the After-care of Disabled Men.

One afternoon was devoted to an inspection of St. Dunstan's, the home for the blind, which is under the charge of Sir Arthur Pearson, who is himself blind. St. Dunstan's was the London home of Mr. Otto Kahn, the New York banker, who gave it over to Sir Arthur for the duration of the War. So much has been written concerning this justly celebrated home that very little remains to be said. The men and women aides are for the most part voluntary workers, who are bringing about astonishing results with their work for the blinded men returned from the War.

All these hospitals are so situated that the disabled men have the benefit of ideal surroundings, being for the most part large estates turned over to the Government by their owners for this purpose. The grounds are so large that the temporary buildings, which are always in keeping with the general character of the place, in no way disturb the effect of being in the country. In no one of these places did one have the impression of an "institution." America has perhaps much to learn as to the beneficial effects of beautiful surroundings, which will often accomplish what purely utilitarian methods and appliances can not. The value of a judicious mingling of beauty and utilitarianism is distinctly recognized here. The outlook from the windows invariably is one to cheer the patient, and when helpless men are out of door their cots are always so placed that their eyes enjoy cheerful scenes. In a dozen cases the men referred to the encouragement they got from the beauty before them. Cheerfulness, bravery, and hope were the unfailing impressions created by these hospitals. Not a down-hearted man was seen. On the last day of the conference in the pensions and allowance section, the paper read by Lieut. Col. Laghezza lifted the problem into an international atmosphere. Col. Laghezza advocated the systematizing of international protection before events caused the problem to become of too great urgency.¹

THE INTERALLIED EXHIBITION.

The exhibition of appliances for caring for the wounded and maimed, and of the artificial aids provided for those who have lost arms, legs, or even faces in part, was indeed painful to behold. Every turn brought reminders of the sufferings war has brought on the world; but the exhibition furnished ample evidence of man's indomitable spirit. The disabled have found some compensation for the loss of limbs or of sight in new interests and in a vast capacity to learn. The various hospitals of the United Kingdom and of the colonies as well had on exhibition not only specimens of the products of their workshops for the disabled but also some of their work in actual process of

¹ See p. 87 of the report of the Second Annual Meeting of the Interallied Conference on the After-care of Disabled Men.

making by the men themselves. Italy, France, and Belgium were also represented in the same manner. The exhibition was so successful and aroused so much interest that it was arranged to continue it for a fortnight and afterwards to take it to Glasgow, Manchester, Birmingham, and Cardiff.

CONCLUSION.

The views expressed by the speakers at the conference seemed quite generally to agree that in order to win this War it is absolutely necessary to keep each available man in general service just as long as he can be used there in any way. Therefore it becomes the chief duty of all concerned so to restore a wounded or maimed man that he may be returned to such general service with the least possible delay. But the very moment it becomes apparent that a man can not be so restored his education and training should be developed with a view to his future life as a citizen. Giving due regard to the experience of other countries each country must settle for itself the problem as to how long military supervision of the disabled man should continue. In the case of wounded men unfit for further service, the consensus of opinion was that the surgeons and medical corps generally should be unhampered while they exhaust every known means of orthopedic training and restoration.

As to the relative merits of voluntary or enforced training, after a man has so far convalesced as no longer to require a hospital life, each country must decide for itself. The general supposition is that American youths of 21 and over will already have made a start in a chosen trade or profession before entering service.

One other point often emphasized by the speakers was that great care should be exercised to circumvent any possibility of a disabled man losing his grip, either through mistaken sympathy of over-solicitous relations and friends, or through unavoidable periods of lack of attention due to an arresting of convalescence or to absence of training facilities. In other words, those in charge of a disabled man must never "let up" until they have done all they can in the way of encouraging a vocational decision, of training him for the work chosen, and of placing him where he may be self-supporting.

In the matter of placing men in employment, there should be every precaution taken in choosing trades and professions in which disabled men are to be trained. This can be successfully accomplished only by the closest kind of cooperation between those in charge of vocational training, both associated and individual employers, and associations of employees.

The discussions at the conference and the exhibition of what has actually been done for the disabled suggest two questions: In view of the vastness and intricacy of the problem and of its profound

moral issues, has enough been done, or even attempted, for the crippled and mutilated men? Are the results accomplished proportionate to the huge funds available for the benefit of these men, or to the devoted energies which are helping now or might be made available in many ways? Generous pensions and artificial limbs should be given as a matter of course. But there is a higher duty in rebuilding and refitting the broken men for suitable occupations. Lastly, though the most perfect system in the world may be developed and the most adequate equipment provided, the success of the entire scheme depends upon the sympathetic ability of those who administer it, their keen insight, and their understanding of the mental attitude of the maimed men under their care.

ASSOCIATIONS OF HARBOR BOAT OWNERS AND EMPLOYEES IN THE PORT OF NEW YORK.

BY BENJAMIN M. SQUIRES.¹

INTRODUCTION.

On October 8, 1917, a concerted demand for higher wages and better working conditions for harbor employees was made upon the boat owners of New York harbor. The demand came from the Marine Workers' Affiliation of the Port of New York, comprising the following unions: Consolidated Marine Engineers' Beneficial Association No. 33; American Association of Masters, Mates, and Pilots, Harbor No. 1; Harbor Boatmen's Union; and Tidewater Boatmen's Union. Subsequently two other harbor unions, the Lighter Captains' Union and the International Union of Steam and Operating Engineers, Local 379, joined the Affiliation. Inasmuch as this was the first expression of a united effort on the part of New York harbor employees toward a standardization of wages and working conditions, the economic conditions and issues that brought the Marine Workers' Affiliation into existence and led to the above concerted demand are significant.

In 1916, according to figures compiled by the Bureau of Census, United States Department of Commerce, there were 6,117 harbor craft engaged in carrying on the commerce of the port of New York. These were roughly divided into 684 self-propelled and 5,433 nonself-propelled. The self-propelled may be further divided into tugs or other towing vessels, steam lighters, ferry boats, and passenger steamers; the nonself-propelled into coal boats, grain boats, scows, dumpers, covered barges, lighters, and car floats.²

The ownership of these harbor craft varies from individual to corporate and from municipal to Federal. It is estimated that from 30 to 40 per cent of the harbor craft are operated by railroads in the transfer of freight and passengers. The terminal companies and many of the steamship lines have their own harbor marine floating equipment. The city of New York, the State of New York, and the Federal Government operate ferry boats. The Departments of War and Navy and the Shipping Board have become operators of harbor craft in connection with the overseas transportation of men and supplies. In addition to these there are a large number of private owners or companies engaged exclusively in harbor transportation. Owing to incomplete registration of harbor craft, the number of such

¹ In collecting the material on which this article is based, Mr. Squires was assisted by Mr. Emil Frankel.

² For a description of the various types of harbor boats, see MONTHLY LABOR REVIEW, July, 1918, pp. 1 to 20.

private owners or companies is not readily determinable, but information available places the number in excess of 400. Some of the owners operate one or two boats, others several hundred; some operate independently, others are organized into associations. The interests represented by the several owners' associations are indicated in the following:

Associations.	Representing—
New York Boat Owners' Association (Inc.).....	All classes of harbor marine work.
New York Tow Boat Exchange (Inc.).....	Towing interests.
Lighterage Association of the Port of New York.....	Lighterage interests.
National Board of Steam Navigation.....	All classes of harbor marine work; but not restricted
American Steamship Association.....	to harbor craft or to the port of New York.
Long Island Barge Operators' Association.....	Coal boat interests organized primarily for coopera-
New York Coal Barge Operators.....	tion with the Government.

The number of men employed on harbor craft in the port of New York in 1916, according to United States Bureau of Census figures, was 12,632, of which number 5,656 were on self-propelled and 6,876 on nonself-propelled craft. The occupations of these employees and the jurisdictional claims of the unions with respect to the different classes of harbor craft and employees are as follows:¹

Type of boat.	Occupation.	Union.
Self-propelled boats: Tugs, steam lighters, ferry boats.	Masters or captains, mates and pilots.	American Association of Masters, Mates, and Pilots.
	Engineers and assistant engineers.		Consolidated Marine Engineers' Beneficial Association.
	Firemen.....	Harbor Boatmen's Union.
	Oilers.....	
	Deckhands.....	
Nonself-propelled boats:	Cooks.....	International Union of Steam and Operating Engineers.
	1. Car floats.....		Lighter Captains' Union.
	2. Lighters (with mast and boom).	Tidewater Boatmen's Union.
	3. Covered barges.....	
	4. Coal boats, grain boats, scows, dumpers.	
	Floatmen.....	International Union of Steam and Operating Engineers.
	Hoisting engineers (boats with steam hoist).	
Captains.....	Lighter Captains' Union.	
Captains.....		Tidewater Boatmen's Union.

The affiliation of the above unions with national and international organizations is shown in the following:

American Federation of Labor.	National Harbor American Association of Masters, Mates, and Pilots.	United Harbor No. 1..	Marine Workers' Affiliation of the Port of New York.
	National Marine Engineers' Beneficial Association.	Consolidated No. 33...	
	International Longshoremen's Association.	Tidewater Boatmen's Union, Local 847. Harbor Boatmen's Union, Local 847, Series 1. Lighter Captain's Union, Local 847, Series 2. Local 379.....	
	International Union of Steam and Operating Engineers.		

¹ For a description of these occupations and the wages and working conditions of employees, see MONTHLY LABOR REVIEW for July, 1918, pp. 1 to 20.

It will be observed that some of the owners' associations represent specialized interests; others represent all types of harbor craft, though not necessarily all owners. Each of the employees' associations, with the exception of the Harbor Boatmen's Union, is organized along occupational lines. A brief consideration of each of the associations of employers and employees will indicate the development of concerted action and the problems to which such action gives rise.

BOAT OWNERS' ASSOCIATIONS.

From the foregoing brief description of diversified harbor interests it will be apparent that conditions are not particularly favorable for any close association of boat owners. Municipal, State, or Federal agencies, although competing in a measure with private interests, can not be expected to affiliate with them. The harbor transportation work of railroads and steamship lines is unlike that of companies engaged exclusively in commercial harbor work in that the work of the former is restricted to the handling of commodities from or to their own lines and is not strictly competitive. Moreover, the railroad rates for harbor lighterage are governed by Interstate Commerce regulations, whereas the rates of private operators are governed almost solely by the law of supply and demand. The result has been more or less aloofness on the part of railroad and steamship lines and a jealously guarded independence on the part of private operators.

NATIONAL BOARD OF STEAM NAVIGATION.

The National Board of Steam Navigation, although not restricted to owners of harbor craft or to the port of New York, may be regarded as the first association to represent owners of marine equipment in the port. The association was formed in 1871 and incorporated in 1905. Its objects as stated in the preamble to its constitution are:

1. Improved safeguards for life and property.
2. Fixed and permanent rules for navigation.
3. Relief from the exactions of private right vendors.
4. Protection from unwise legislation and excessive liability.

To these may be added the "advantages that may be secured from time to time by cooperation and concert of action whether pecuniary, judicial or legislative."

As the name implies, the association is national in scope. In 1917 it had 229 members from 31 of the principal inland and coast ports. Of the entire membership, 140 were from the port of New York, all the railroads with marine equipment and the most important of the river, coastwise, deep sea, and harbor transportation companies operating from or in the port being members.

AMERICAN STEAMSHIP ASSOCIATION.

Somewhat akin in purpose and scope to the National Board of Steam Navigation is the American Steamship Association. As first organized in 1905, it included in its membership the coastwise steamship lines of the Atlantic seaboard. In 1913 it was reorganized and now includes the most important lines of both the Atlantic and Pacific coasts. In 1917 the association had 42 members from 10 coast ports. Of the total membership, 27 were from the port of New York.

The purpose of the association is to formulate and present evidence before the various governmental departments in order "to protect the legitimate interests of all steamship operators." It cooperates at the present time with the Navy Department and with the United States Shipping Board in negotiating with steamship companies to furnish adequate facilities aboard their ships and in working toward increasing the merchant marine. It was instrumental in securing the recent agreements between steamship companies and seamen in the matter of wages and working conditions.

Neither of the above associations is concerned primarily with harbor craft in the port of New York. The predominating number of members are from this port, however, and many of these members operate harbor craft. As the need for concerted action in harbor matters develops it is to be expected that both associations will serve as a means of expression of such action.

NEW YORK BOAT OWNERS' ASSOCIATION.

The first association purporting to represent exclusively the interests of all New York harbor boat-owners was the New York Boat Owners' Association. This association was the outgrowth of trade difficulties between owners of harbor craft, and was hastened by a threatened strike of the tidewater boatmen in 1914 and the expected need of cooperation on the part of boat owners.

The purposes of the association as set forth in its constitution are "to protect and improve the interests of those engaged in the business of operating, owning, managing, or controlling all classes of scows, dredges, coal boats, canal boats, lighters, barges, tug boats, and other vessels, whether propelled by power or not; to reform and correct abuses relating to the business of its members; to secure freedom from unjust or unlawful exactions; to acquire, preserve, and disseminate accurate and valuable business information as to all matters affecting its members and their business and to obtain, preserve, and diffuse reliable information as to the standing of merchants or other matters; to preserve uniformity and certainty in the custom and usages of trade and commerce relating to the business of the members

of this association; to adjust and settle differences arising between the members; to promote a more enlarged and friendly intercourse between its members and to devise and put into operation such legal methods as may be necessary to effect the objects aforesaid."

At one time attempts were made by the association to establish a central registry of all men employed on craft owned by members of the association and to record the quality of the services rendered. The purpose of such a record was to give information to members, if requested, enabling them to determine the desirability of applicants for jobs. The association reports that the plan was short lived as the enormous shipping expansion made it impracticable to carry it out as originally intended.

The association has a membership of more than 150 boat owners, but does not include any of the railroads or steamship lines. Approximately 3,500 men are employed by the members of the association, and it is by far the strongest association representing exclusively harbor interests. With the recent organization of the New York Towboat Exchange, the New York Boat Owners' Association now represents chiefly the interests of the owners of nonself-propelled harbor craft.

NEW YORK TOWBOAT EXCHANGE.

The New York Towboat Exchange represents specialized harbor interests. Its members are members of the New York Boat Owners' Association, but their towing interests are represented by the Towboat Exchange, organized in January, 1917.

As stated in its certificate of incorporation, the objects of the New York Towboat Exchange are "the fostering of the trade, commerce, and interests of those owning or operating tug boats in and about the port of New York and waters tributary thereto, and those towing vessels for hire in and about said port and waters tributary thereto; to inculcate just and equitable principles in said business among those engaged therein; to reform abuses relative thereto; to secure freedom from unjust or unlawful exactions; to diffuse accurate and reliable information as to the standing of those engaged in said business and other matters; to settle differences between its members and others engaged in said business."

The New York Towboat Exchange includes in its membership about 30 of the more important towing lines operating in the port of New York, but like the Boat Owners' Association it does not include railroads or steamship lines.

LIGHTERAGE ASSOCIATION OF THE PORT OF NEW YORK.

The need for legislation regarding wharfage facilities for independent operators of lighters in the port of New York led in 1910 to the organization of the Lighterage Association of the Port of New

York. With the accomplishment of its purpose the association became inactive and virtually ceased to exist until the fall of 1917, when the concerted demands of harbor employees made it necessary for the lighterage interests to decide upon a course of action. As a consequence the association was revived. It now has a membership of 30 and represents exclusively the lighterage interests of its members.

OTHER BOAT OWNERS' ASSOCIATIONS.

Two other associations of harbor-boat owners have been formed recently as a result of a need for specialized cooperation to meet Government needs. Formed primarily as a war emergency, they are of concern in connection with a study of labor problems only as they indicate the trend toward associations of specialized interests and in so far as the associations may continue beyond the emergency creating them.

The Long Island Barge Operators' Association was formed at the request and works under the direction of the United States Shipping Board. It is made up of coal-boat owners operating between coal ports on the Jersey side of the harbor and points along Long Island Sound. Its purpose is the more efficient use of boats in the distribution of coal to meet shipping needs.

The New York Coal Barge Operators was formed in May, 1918, "to expedite and centralize the distribution of coal barges" at the port of New York, "mainly on the suggestion of the Deputy Marine Director of Eastern Railroads." The association "will receive emergency orders to furnish coal barges to any department of the Government, or in fact stand ready to do its part in relieving any emergency that may arise for the movement of coal in New York Harbor."

The association has no recorded membership. Every owner who has a coal boat is regarded as a member and may be called upon to help the Government in case of need. The association thus acts primarily as a clearing house for coal barges.

EMPLOYEES' ASSOCIATIONS.

The diversity of harbor transportation interests and the more or less independent attitude of individual operators have served to determine the character of the associations of harbor-boat employees and to delay the development of concerted action on the part of these associations. The operation of harbor boats permits the employment of a large number of unskilled men readily recruited in the past from the water front. To these each boat owner in the past paid what he found to be necessary. For labor of this class, organization is difficult and can be brought about only by a control of the supply or by the assistance of skilled labor. In striking contrast with the

unskilled harbor-boat employees is a comparatively small number of highly skilled licensed officers on self-propelled boats who stand virtually in the position of master workmen or foremen. For these, organization for the purpose of bettering wages or working conditions is less imperative, and, when accomplished, is weakened by individual interests and by the prospect of becoming owners and operators or of attaining administrative positions with their employers. Between these two groups is a class of harbor employees having more or less skill and experience but possessed of a roving and independent spirit characteristic of boatmen. As a rule these men are not sufficiently settled in employment to take favorably to organization. The problems of concerted action on the part of harbor-boat employees are thus even greater than among boat owners, for to the diversity of occupations and interests is added a sharply defined class distinction.

MASTERS, MATES, AND PILOTS.

The burning of a passenger steamer at one of the New York Harbor piers in 1880 resulted in the arrest of the captain and engineer who were charged with neglect of duty but who were not permitted to appear before the local board of inspectors of steam vessels in the investigation that followed. This event, together with a growing dissatisfaction with steamship-inspection laws affecting licensed officers, gave impetus to a movement among licensed pilots to organize nationally. The American Brotherhood of Steamboat Pilots, Harbor No. 1, was formed January 12, 1887. Locals were formed in New York and other harbors and finally in 1900, in order to include in its membership licensed masters and mates, the name of the organization was changed to the American Association of Masters, Mates, and Pilots.

At first the organization tended to become highly specialized along distinct lines of shipping interests. Five locals, or harbors as they were called, were organized in the port of New York. These were consolidated in 1903 into what is known as Harbor No. 1, and a business manager was elected.

Only one strike of consequence has been called in the harbor. Late in 1909 the masters, mates, and pilots employed by the marine departments of railroad and terminal companies in the port requested a conference with their employers to take up the question of an eight-hour day. Subcommittees made up of a master and pilot from each of the railroads, with the business manager of the association as chairman, were appointed to deal with the railroads. The terminal employees were given authority to deal directly with their employers. Several conferences were held by the subcommittees with representatives of the railroads but no agreement was reached and on March 15, 1910, the men threatened to tender their resignations effective as of

March 31, 1910. Soon afterwards several of the railroad representatives submitted a counterproposal of one day off each week and seven days' vacation each year with pay. This was refused by the subcommittee which, however, receded from the eight-hour day demand and proposed one day off each week with 10 days' annual vacation. The 10-day vacation demand was subsequently changed to seven days and an additional demand was made for a slight wage increase.

Several of the railroad companies and all of the terminals succeeded in making individual agreements with their men prior to March 31, 1910. Four of the railroad companies, however, stood out, and 91 men went on strike April 1, 1910. Efforts at mediation on the part of the State bureau of mediation and arbitration failed and the railroads proceeded to fill the places of the strikers. On April 17, 1910, the strike was called off by the union. The consequences of the strike were probably more serious to the union than to the employers, though it taught the union the lesson that partial strikes are apt to be unsuccessful. It is probable, too, that the first seeds of affiliation with other harbor employees were sown at this time.

The association has also suffered reverses from internal dissension. Because of dissatisfaction with the progress of a wage dispute in the summer of 1908 a number of members withdrew from the association and formed an organization known as Independent Harbor No. 1. Again, after the strike in 1910, a large number of members left the association because of dissatisfaction with the method of conducting the strike. The general manager in particular was severely criticised and shortly afterward he resigned, organizing the "American Steamship Licensed Officers' Association, Incorporated." A number of the members of the American Association of Masters, Mates, and Pilots who had supported the general manager went over to the new association, the purpose of which as expressed in the preamble of its constitution is to have its members deal directly with their employers and not through the affiliation or union. In this is seen the shadow of the methods used in the 1910 dispute.

Another organization of licensed deck officers was started in March, 1912, as the "Neptune Association of Masters and Mates of Ocean and Coastwise Steam Vessels." This association was organized "to unite into one great body the licensed masters and mates of ocean and coastwise steam vessels, and thus enable them to demand and obtain a voice in the making of laws and regulations under which they are governed; to improve the condition and status of the profession generally; to furnish assistance in professional matters, and at the same time to promote cordial relations with employers." None of the three associations formed subsequent to the American Associa-

tion of Masters, Mates, and Pilots have agreements or affiliations with any labor union and for the most part their membership is composed of licensed deck officers on ocean and coastwise vessels, and as such are not of especial interest in the harbor situation.

In one very important respect the American Association of Masters, Mates, and Pilots differs from other crafts unions. Its members are looked upon as the direct representatives of the employers' interests. The master, or the pilot or mate when acting for the master, is in charge of the boat. Even the licensed engineer takes orders from him. He has the power of discipline over at least the deck crew and, in many instances, has the power of hiring and discharging. As indicated previously, his position is somewhat analagous to that of a foreman in a factory, and as such the probability of any close affiliation with his subordinates has seemed remote. His position of authority in the capacity of master has undoubtedly been responsible for the independent action on the part of the American Association of Masters, Mates, and Pilots in demands for wage increases and its former aloofness from other harbor employees in their demands. Indeed, it is not unlikely that the masters, mates, and pilots felt their interests to be different from those of their subordinates or of other labor organizations and therefore made no effort to affiliate with them.

The affiliation of the American Association of Masters, Mates, and Pilots with the American Federation of Labor did not take place until 1916 though it had been under discussion for several years. As early as 1910 the Seamen's International Union offered a resolution at the American Federation of Labor Convention inviting licensed deck officers and marine engineers on merchant vessels to affiliate with the American Federation of Labor. The affiliation was probably hastened by the rival organizations established and the desire to prevent such organizations from being recognized by the American Federation of Labor. At the 1917 convention of the American Federation of Labor the American Association of Masters, Mates, and Pilots introduced a resolution stating that the American Steamship Licensed Officers' Association, Incorporated, is an organization "maintained principally by and for the employers" and that it was instituted for the purpose of destroying the American Association of Masters, Mates, and Pilots. The American Federation of Labor was requested to regard this organization as "inimical to the best interests of labor" and it was urged that "all true friends of organized labor refrain from identifying themselves with it." The resolution further asked that the Neptune Association of Masters and Mates of Ocean and Coastwise Steam Vessels "be considered as detrimental to organized labor."

MARINE ENGINEERS.

The marine engineers were organized in the early seventies, though it was not until 1882 that a local was established in the port of New York. This was known as Marine Engineer's Beneficial Association No. 33 and was short lived. It was succeeded by Marine Engineers' Beneficial Association No. 50, the membership of which consisted largely of ferryboat engineers. Locals were formed in Brooklyn and in Jersey City. Engineers on ocean and coastwise steamships were admitted to membership in these locals, but they felt their interests were radically different from those of engineers employed on harbor boats, and finally, in 1888, another local was formed, known as Ocean Marine Engineers Association No. 69. Three of these locals finally united in Consolidated Marine Engineers' Beneficial Association No. 33. The other locals in New York harbor gradually disintegrated.

Only two strikes of any consequence have been called by the Consolidated Marine Engineers Beneficial Association No. 33. In April, 1903, approximately 200 marine engineers employed by 6 of the railroads with terminals at the port of New York made demands for increased wages, a 12-hour working-day, compensation for overtime, traveling expenses when relieved or required to report at other than regular points, and uniform regulations regarding meals and meal allowances.

A board of arbitration composed of a representative of the engineers and a representative of the railroads heard the case, but since they were unable to agree upon an award, an umpire was chosen. A decision was rendered June 20, 1903, fixing a wage rate somewhat below the scale demanded. No decision was made on the hours per day and the question of meals was left to be arranged between each company and its employees. The men were allowed two days off each month and one week's vacation each year with pay, with double compensation for work performed in lieu of days off. The demand for traveling expenses when reporting for or relieved from duty at irregular points was granted.

At the same time that demands were made upon the railroads, 1,300 engineers employed by other harbor interests demanded an increase in wages. The demands were granted to all but 150 men who went on strike May 12. About 400 firemen, oilers, and coal passers also went out in sympathy with the engineers, the result being considerable interruption to harbor traffic. No united front was put up, however, and the places of the strikers were gradually filled.

The second strike of the marine engineers occurred in 1916. Early in April of that year demands for increased wages were made through a circular letter issued by the Association. The demands were ignored and on May 1 a strike was called. The harbor boatmen supported

the engineers and on May 3 it was reported that 450 tugs were tied up, 40 steamships were unable to leave their piers, and 1,500 engineers were idle. An effort was made by the United States Department of Labor to bring about an adjustment, but it did not meet with success. Boat owners, however, began to make individual agreements with their own employees, and by May 12, the strike was virtually ended, the men having obtained by individual agreement substantially what had been asked through the association.

It has been stated previously that the engineers on ocean-going vessels are inclined to regard their interests as different from the interests of engineers on harbor boats. Shortly after the 1916 strike the question arose again and 15 ocean marine engineers, members of Consolidated Marine Engineers' Beneficial Association No. 33, applied for a charter which was granted by the national president in July, 1916. The opposition from Local No. 33 was so strong, however, that the charter was revoked. Another charter was granted to a different group of engineers in August, 1916, but this also was revoked. Finally, an independent organization, known as "Ocean Association of Marine Engineers," was formed February 1, 1917. Like two of the associations of licensed deck officers described previously, this association claims not to be a labor union but "essentially and exclusively a society for engineers bearing ocean certificates." Similarly, too, it is charged with being supported by and in the interests of steamship companies.

What has been said of the aloofness of masters, mates, and pilots applies in much the same degree to the marine engineers. They, too, represent the interests of the employer and are subject only to the orders of the captain. They have more or less disciplinary authority over firemen, oilers, and other employees of the engine room, and in some cases have the power to hire and to discharge. As a consequence, the idea of affiliation with other harbor employees or labor unions has been of almost as tardy growth as with the masters, mates, and pilots. As early as 1903, however, the question of affiliation with the American Federation of Labor was discussed at the convention of the National Marine Engineers' Beneficial Association, but because of jurisdictional claims raised by international associations of allied trades, such as boiler makers, steam fitters, and plumbers and machinists, the matter was dropped. The question was raised again in 1911, and finally in 1916 a charter was granted by the American Federation of Labor. Because of objections again raised by other internationals and by locals of the National Marine Engineers' Beneficial Association, who felt that local autonomy might be lost, the charter was not accepted at this time. With our entrance into the War, however, conditions of employment changed and in order "to check the movement by unscrupulous ex-members to further extend the activity of

clandestine organizations of licensed marine engineers," and to be in a position to secure recognition from Government departments in the adjustment of important matters, affiliation with the American Federation of Labor was considered to be imperative. A charter was granted and accepted in November, 1917.

HARBOR BOATMEN'S UNION.

As explained previously, the Harbor Boatmen's Union is the only one of the harbor unions that does not follow craft lines. The Harbor Boatmen's Union was organized in 1906 and claims jurisdiction over cooks, deck hands, firemen, and oilers on self-propelled boats and floatmen on car floats. Shortly after the union was formed it became affiliated with the International Seamen's Union of America.

Four strikes have been called, one in 1906, one in 1908, one in 1910, and the last in 1914. In addition to these, sympathetic support was given the engineers in the 1916 strike. From a union standpoint, the strikes have not been very successful. The 1906 strike involved about 250 employees, employed by five companies. Four companies granted substantially the wage increases demanded, but the fifth company refused, and the places of the strikers were filled. In the 1908 strike about 60 men employed by five companies struck against a reduction in wages. The employers refused to meet union representatives, but agreed to pay the same rate of wages as before the strike, and the men returned to work. The 1910 strike occurred at the same time as the strike of masters, mates, and pilots. About 750 of the harbor boatmen were affected, but the employers refused to confer with representatives of the union and filled the places of those strikers who would not return to work under individual agreement. In the 1914 strike only 90 employees were affected and these returned to work under the former conditions without the consent of the union.

This failure on the part of the Harbor Boatmen's Union to obtain wage increases and working conditions comparable with those obtained by other harbor unions was held to be due to the competition of shore unions of cooks and firemen whose members were employed on harbor craft and to insufficient support from the International Seamen's Union. The latter union, in turn, charged "that certain local officials of the International Longshoremen's Association have quietly but energetically sown the seeds of disruption among the members of the Harbor Boatmen's Union." At any rate, the harbor boatmen withdrew from the International Seamen's Union in December, 1916, and affiliated with the International Longshoremen's Association as Local 847, Series 1.

LIGHTER CAPTAIN'S UNION.

Nonsself-propelled boats other than those classed as tidewater boats or car floats may be designated as lighters and barges. The Lighter Captains' Union claims jurisdiction over the captains of these boats. This is the most recent of the harbor unions and was first organized in 1913 as the Lightermen's Brotherhood Association. The objects of the association were purely social and benevolent and it existed as a fraternal insurance organization until 1917, when a desire to improve the wages and working conditions of its members led to its organization as a labor union. The new organization was chartered as Local 847, Series 2 of the International Longshoremen's Association in October, 1917, and took the name of Lighter Captain's Union. It did not, however, become a member of the Marine Workers' Affiliation of the Port of New York until after the concerted demand of October 8, 1917.

STATIONARY MARINE HOISTING ENGINEERS.

A considerable number of the harbor craft designated as lighters are equipped with hoisting gear—steam, gasoline, or hand—for loading and unloading cargo. Those equipped with steam hoisting gear carry an engineer in addition to the captain. The International Union of Steam and Operating Engineers claims jurisdiction over these lighter engineers through Local No. 379, organized about 1906. Prior to this, however, the hoisting engineers on harbor craft were organized into an independent union of harbor engineers. This union later became a local of the International Longshoremen's Association, retaining its affiliation until 1906.

The members of Local No. 379 have had one strike of consequence. In 1915 the union demanded a wage increase which was refused. About 350 men were on strike for five weeks but were unable to secure their demands. It is charged that the engineers did not receive the support of other harbor unions and that the places of some of the strikers were filled by members of allied trade-unions. Some of the employers substituted gasoline hoisting gear for steam and were able to get their lighter captains to operate the gasoline hoist.

Local No. 379 is affiliated with the American Federation of Labor through its international affiliation, and in February, 1918, became a member of the Marine Workers' Affiliation of the Port of New York.

TIDEWATER BOATMEN'S UNION.

Certain types of one-man nonsself-propelled boats, namely, coal boats, grain boats, scows, and dumpers are designated as tidewater boats. In the fall of 1902, a number of the captains of these boats

organized what is known as the Tidewater Boatmen's Union. By September, 1903, a membership of nearly 1,500 was claimed. The members became dissatisfied, however, with the union officials, charging mismanagement and misappropriation of funds, and in 1905 the union went out of existence. The union was later reorganized and by September, 1907, a membership of 1,800 was claimed.

A wage increase was demanded in October, 1907, which was refused by the employers. As a result of this refusal, a strike was called November 1, 1907, affecting 1,800 employees and 88 boat owners. The owners refused to arbitrate or to meet union representatives. Individual employers, however, negotiated with the union and wage increases were granted to all but 180 men employed by two owners.

Trouble with union officials was again the cause of dissatisfaction among members and is assigned as the reason for the decline in membership following the 1907 strike. By September, 1909, there were less than 250 members in the union. During 1910 the membership began to increase and by the fall of 1913, when new wage demands were presented to the employers, the union claimed nearly 2,000 members. Practically all of the 2,000 members are reported by the union as having been on strike January 2, 1914, to enforce the 1913 demands. Conferences were held between employers and union officials and wage increases were granted to about 1,900 of the men on strike.

After the strike the membership again declined, this time to about half the number before the strike, and did not increase again until 1917 when plans were made for new demands.

The rise and fall of membership in the Tidewater Boatmen's Union is characteristic of any local union of unskilled employees which is not guided in its policies and activities by the officials of a stronger and more stable parent organization. This the Tidewater Boatmen's Union did not have until 1913 when it was chartered as Local No. 847 of the International Longshoreman's Association.

MARINE WORKERS' AFFILIATION OF THE PORT OF NEW YORK.

It will be evident from the foregoing brief history of the various harbor unions that each has worked more or less independently of the other. Prior to 1917, there had been no concerted demand, and the support accorded to a union on strike by other harbor unions fell far short of being whole hearted. This was particularly true in the attitude of the licensed officers and engineers toward other harbor employees. Thus in the strikes of the harbor boatmen, the engineers and captains continued to operate the boats with such help as the owners were able to provide. Even between the captains and engineers there were often grievances and a lack of cordial cooperation due in a measure to the feeling on the part of the engin-

ers that the captains stood closer to the boat owners and worked hand in hand with them.

After the strike of the masters, mates and pilots in 1910, however, the Consolidated Marine Engineers' Beneficial Association and the American Association of Masters, Mates, and Pilots began to plan for closer cooperation and appointed a committee to "devise a means of connecting the two associations to the extent of being able to support, advance and safeguard the economic interests of both organizations and their members collectively and individually."

Finally in March, 1914, a joint committee, made up of the president, first vice president, and business manager of each of the two associations, and a member of each association from each branch of the steamboat service—that is, steamboat, ferryboat, independent tug, passenger steamboat, and yacht—was permanently organized as the Marine Officers' Working Affiliation, Nos. 1 and 33. The reason assigned for this action was that this was a "day of combinations of industrial and professional organizations for the better security and advancement of their like interests . . . and because the masters, mates, and pilots and marine engineers' interests are so closely identified that contrary action on the part of either is injurious to the other and assistance by either is beneficial to both."

The constitution of the Marine Officers' Working Affiliation provided that regular meetings should be held once a month and in the matter of disputes that:

First. All reports of grievances arising between a master, mate, or pilot and an engineer shall be submitted to their respective associations, and, if accepted, the other association shall be so notified and the matter adjusted at the next earliest meeting, regular or special, of the Marine Officers' Working Affiliation.

Second. Reports of grievances arising between the members of either association or agents shall be made to their respective association, and if cooperation be desired, the president of each association shall appoint the requisite number of members of the Marine Officers' Working Affiliation, who shall form a joint committee to adjust such grievance. The association whose grievance is to be adjusted shall have a majority on such committee. No member (shall be) required to serve on a committee appearing before his employers.

Third. No member of either association affiliated shall be permitted to sign any petition detrimental to the interests of any other class of organized labor.

Except for the third provision above, there was no suggestion in this affiliation of cooperation with other harbor employees. At the 1915 convention of the American Federation of Labor, however, the International Longshoreman's Association requested the convention to arrange for conferences of representatives of the international unions of the marine trades for the purpose of discussing the formation of a marine trades department within the American Federation of Labor in order to combat the increased strength of the

shipping companies. This did not have especial reference to the port of New York, and nothing further was done toward coordinating the unions of New York harbor employees until the 1916 strike of the marine engineers. During this strike the engineers received the active support of the harbor boatmen, and a general understanding was reached with the Harbor Boatmen's Union which, though not admitting the union to membership in the Marine Officers' Working Affiliation, paved the way for mutual support. It was not until June of the following year, however, that the Harbor Boatmen's Union was represented at Affiliation meetings.

Early in 1917 the Affiliation began making plans for a concerted effort to better wages and working conditions. On May 29, 1917, the Marine Engineers' Association took the initiative in a letter to the New York Boat Owners' Association requesting a conference for the purpose of adjusting wage rates. The New York Boat Owners' Association referred the matter to the New York Towboat Exchange composed of towing interests and a conference was agreed upon for June 20, 1917, on which date the marine engineers submitted to the New York Towboat Exchange a formal demand for a flat increase of \$25 per month to engineers on harbor vessels, a 12-hour day, and an overtime rate of \$1 per hour. On the same date, the masters, mates, and pilots met in conference with the Towboat Exchange and submitted demands identical in most respects with those of the engineers. In the meantime, the Harbor Boatmen's Union had written to the Towboat Exchange on June 19, requesting that they be considered in the conference with the engineers and the masters, mates, and pilots. This request was refused, as was also a subsequent request from the engineers to the same end. The consequence of this refusal was that negotiations with the engineers and masters, mates, and pilots were discontinued, the engineers charging the Towboat Exchange with an arbitrary attitude inimical to the best interests of the harbor, and the Exchange charging the engineers with violation of the agreement for a conference with only the licensed officers and with an attempt to force the members of the Exchange to recognize the Harbor Boatmen's Union.

Telegrams requesting intervention and investigation were sent to the Secretaries of Commerce and Labor by the marine engineers. Mediation was attempted by the United States Department of Labor and by the State board of mediation and arbitration, but without success.

In the meantime, at the July, 1917, convention of the International Longshoremens' Association, delegates from the Harbor Boatmen's Union and the Tidewater Boatmen's Union introduced a resolution stating that "the condition of the marine organizations of New York and vicinity are more or less uncertain with regard to their

work and organization, mainly because they do not work together as they should," and that such conditions would be improved by meetings of the officers of the various organizations at least once a month to discuss matters of general interest. The convention was requested to take steps to bring about an organization in the nature of a marine council in the port of New York. At the same convention it was requested that a special organizer be appointed from the ranks of the boatmen and men of other harbor craft eligible to membership in locals of the International Longshoremen's Association to work in conjunction with masters, mates, and pilots and the marine engineers, and "to assist in maintaining harmony and close cooperation between the above-named organizations."

The unsuccessful attempt on the part of State and Federal agencies to bring about a settlement, together with the representation on Government boards and councils accorded to labor in other industries, undoubtedly strengthened the harbor employees in their determination to act concertedly and to obtain recognition. This feeling was aggravated, too, by the attempt on the part of owners to make individual agreements with their employees. On August 30, 1917, representatives of the Marine Engineers, the Masters, Mates, and Pilots, the Harbor Boatmen's Union, and the Tidewater Boatmen's Union met for the purpose of effecting closer relations and gaining united support. The result was a working agreement and the formation of the Marine Workers' Affiliation of the Port of New York. Demands were formulated, and on October 8, 1917, these were sent to the various boat owners by the newly created Affiliation. The demands specified that none but members of the four associations forming the Affiliation should man harbor boats, and that the wage schedule and rules should take effect at 6 a. m. of November 1, 1917. Immediately thereafter steps were taken by the Marine Engineers' Beneficial Association and by the American Association of Masters, Mates, and Pilots to secure the resignations required by law of licensed officers before they can quit work.

Before the strength of the Affiliation could be put to the test, however, representatives of employers and employees were requested to appear before the United States Shipping Board, and on October 20, 1917, an agreement was secured whereby all disputes affecting wages and working conditions, which could not first be adjusted by employers and employees, were to be submitted during the period of the War to a strictly Government board of arbitration. It was further provided that "This Government board shall have no authority to pass upon the question of open or closed shop or the recognition of unions, but there shall be no discrimination of any kind against union men, and the board shall have power to determine questions of discrimination."¹

¹The adjustment of wages and working conditions of harbor employees will be discussed in a subsequent article.

With the subsequent addition of the Lighter Captains' Union and the local union of Steam and Operating Engineers, the Marine Workers' Affiliation includes in its membership all classes of labor employed on harbor craft. Each of the unions now comprising the Affiliation has increased enormously in membership since the demands of October 8, 1917, and a combined membership is now claimed of approximately 80 per cent of the harbor employees. Moreover, powerful support is afforded through the affiliation of three of the unions with the International Longshoremen's Association.

Except for the admission of the two unions named above, no action has been taken toward perfecting the Affiliation. Neither constitution nor by-laws have been adopted. The business manager of United Harbor No. 1, American Association of Masters, Mates, and Pilots, is the present chairman; the business manager of No. 33, Consolidated Marine Engineers Beneficial Association, is the present secretary of the Affiliation. The Marine Officers' Working Affiliation, replaced temporarily if not permanently by the new Affiliation, was made up of nine members from each of the two associations of licensed officers. The Marine Workers' Affiliation works through an executive committee composed of two representatives from each of the six unions. As with the Marine Officers' Working Affiliation, any action of the Marine Workers' Affiliation must be referred to the different unions.

CONCLUSION.

The Marine Workers' Affiliation was admittedly brought about in part by the strategic position of labor in the port and in part by the uncompromising attitude of many boat owners toward harbor unions, particularly the unions of unlicensed men employed on the harbor craft. In spite of the provision that the question of unionism should not come before the board of arbitration, Government intervention has unavoidably brought representatives of employers and employees together and lent encouragement to organization.

With the large increase in the membership of individual unions, the support of the longshoremen, and the assurance of the Government that union members shall not be discriminated against, the Marine Workers' Affiliation is in a position to exert a large influence in questions affecting harbor employees. Whether this influence will be used wisely in welding together hitherto antagonistic and competitive groups of harbor labor and in establishing standards of wages and working conditions that will survive the strain of economic readjustment after the War, or as a convenient means of enforcing temporary concessions without any thought of the permanent solidarity of labor, will depend in large measure upon the leadership in the different unions.

LABOR AND THE WAR.

ORGANIZATION OF THE WAR LABOR ADMINISTRATION COMPLETED.

Early in January, 1918, the President inaugurated the war labor administration by designating Hon. W. B. Wilson, Secretary of Labor, as labor administrator. The Secretary at once appointed an advisory council, composed of representatives of capital and labor and the public, with the Hon. John Lind, of Minnesota, as chairman, to formulate a plan for the reorganization of the Department of Labor in order that it might handle more efficiently the multitude of problems affecting labor which are being emphasized by war conditions. This council submitted a program,¹ which was approved by the Secretary on January 28, recommending the creation of several new agencies to supplement the work being done by the newly established employment service, the conciliation division, and the investigation bureaus of the department. The plan contemplated the centralization of labor administration under the Secretary of Labor, assisted by a policies board² made up of representatives of the production departments of the Government, together with the heads of the various bureaus and services of the Department of Labor, the purpose being to secure "centralization of control together with a wise decentralization of administration by agencies which come into direct touch with the problem at issue."

The program has been modified somewhat as the exigencies seemed to require, and during the recent months the work of the Department of Labor, greatly expanded by war conditions, has been gradually and systematically coordinated and its activities, as they have been developed, have been concentrated and organized into bureaus or agencies, each under the direction of an administrator, enjoying equal rights in the cabinet of the Secretary of Labor. On July 15 the completion of the war labor administration cabinet was announced by the Secretary, the organization of each division being practically completed on that date. The cabinet is as follows:³

Secretary of Labor: W. B. Wilson, Labor Administrator.

Assistant Secretary of Labor: Louis F. Post.

Solicitor: John W. Abercrombie.

*War Labor Policies Board: Felix Frankfurter, Assistant to the Secretary, Chairman.

Bureau of Labor Statistics: Royal Meeker, Commissioner.

Bureau of Immigration: Anthony Caminetti, Commissioner General.

¹ This program was published in the MONTHLY REVIEW for February, 1918, pp. 79-81.

² See MONTHLY LABOR REVIEW for July (pp. 23-27) for an account of the organization and functions of this board. See also MONTHLY REVIEW for June, 1918, pp. 56, 57.

³ The new agencies established since Jan. 1, 1918, are indicated by an*. Provision for five of these services was contained in the sundry civil bill approved by the President on July 1, 1918.

- Bureau of Naturalization: Richard K. Campbell, Commissioner.
Children's Bureau: Miss Julia C. Lathrop, Chief.
*Employment Service: John B. Densmore, Director General.
*Information and Education Service: Roger W. Babson, Director.
*Labor Adjustment Service: Hugh L. Kerwin, Director.
*Training and Dilution Service: Dean Herman Schneider, Director.
*Working Conditions Service: Grant Hamilton, Director.
*Investigation and Inspection Service: Ethelbert Stewart, Director.
*Women in Industry Service: Miss Mary Van Kleeck, Director.
*Bureau of Industrial Housing and Transportation: Otto M. Eidlitz, Director.
*Civilian Insignia Service: Charles T. Clayton, Director.
Chief Clerk: Samuel J. Gompers.

THE UNITED STATES EMPLOYMENT SERVICE.

The work of the United States Employment Service, which was the first of the above new agencies to be organized and developed, was described in the MONTHLY REVIEW for May, 1918 (pp. 191-205), and further noted in the MONTHLY LABOR REVIEW for July (pp. 133-135). The most recent plan adopted by the Employment Service for the effective recruiting and placement of labor includes the organization of State advisory boards, community labor boards, and State organization committees, each composed of representatives of employers and workers, and of the United States Employment Service. The purpose is to give employers and employees in each State and community a voice in the operation of the labor recruiting and distributing machinery of the Government and also to afford the Employment Service the full benefit of the knowledge and experience of the leaders in industrial management and of labor.

State federations of labor and associations of employers were asked to designate representatives in their respective States to act as organization committees to assist the State director of employment in organizing the State advisory board, which is composed of the director of employment and two representatives each of labor and of management appointed by the Secretary of Labor. This advisory board assists the State director of employment in choosing his own staff and the officials to be placed in charge of the main local offices. The functions of this board are to determine the locality in which recruiting shall be permitted for local war industries, and to advise the State director on all questions of policy for the State generally. The purpose of this joint supervision of employment activities is to make sure that no influence of any sort, other than that of efficiency, shall affect the choice of personnel in any of the 48 States. The community labor boards, composed of one representative each of employers and of workers, and the employment director, are organized in industrial communities to decide all questions concerning recruiting and distributing labor within certain boundaries prescribed

by the State organization committee. They are to assist in protecting local employers against unfair or unnecessary drafts on labor and to accomplish the greatest good with the least harm.

WAR LABOR POLICIES BOARD.

The organization and functions of the War Labor Policies Board were described in the MONTHLY LABOR REVIEW for July, 1918 (pp. 23 to 27). Its purpose is primarily to outline policies to govern the administration of the labor program through the several agencies which now constitute the Department of Labor and also through the other executive departments of the Government having to do with war production. Opportunity, however, should here be taken to correct a misunderstanding that has arisen as to the attitude of the policies board toward proposed wage increases in view of its adoption in June of a resolution requesting the Government departments to withhold contemplated wage changes pending action by the board's committee on standardization of wages.¹ It appears that currency has been given to the report that any action by the National War Labor Board resulting in increases of wages would be nullified by the policies board. It was not intended that the resolution should have this effect. The War Labor Policies Board did not recommend that changes in wage scales should not be made but did urge upon the various Government departments and boards "to refrain from making changes in present standards pending the standardization now under consideration." This does not invite in any way requests that wages which are now below the present standard set by any of the various wage adjustment boards should not be increased to the level of such standards. Rather, it is the expressed desire of the policies board that wages that are between standards should be brought up to that point. Concisely, the policies board intended to convey the thought that the standards themselves should not be disturbed where they are in force and that they should be applied where they are not in force. Furthermore, it should be emphasized that the policies board on July 12 definitely adopted the principles and policies of the National War Labor Board as its own guiding principles and policies. These principles include the following:

1. The right of the workers to organize into trade-unions and to bargain collectively with their employers.
2. The continuance of existing union standards where they have heretofore applied, plus the right of the workers to obtain improved conditions, wages, or hours of work through decisions of the National War Labor Board or any umpire it may select in specific cases.
3. Equal pay for equal work, whether performed by men or by women.

¹ See MONTHLY LABOR REVIEW for July, 1918, p. 27.

4. Recognition of the basic eight-hour day where a law requires it and settlement of the question of hours in other cases with due regard to governmental necessities and the welfare, health, and proper comfort of the workers.
5. Maintenance of the maximum of production.
6. Due regard for the labor standards, wage scales, and other conditions in particular localities in fixing wages, hours, and conditions of labor.
7. Declaration of the right of all workers to a living wage, insuring the subsistence of each worker and his family in health and reasonable comfort.

INVESTIGATION AND INSPECTION SERVICE.

The Investigation and Inspection Service was organized to afford a medium by which quick investigations of labor conditions might be made to secure information for immediate use. It is intended that each new branch of the Department of Labor shall use this service, so far as possible, in its field work. The service is responsible also for the inspection of Government and private establishments to see that proper standards of wages and hours, hygiene, safety, and working conditions are established and maintained. In brief, the plan proposes the consolidation of all inspectors of the department into one service. In order that there might be no duplication of effort the Commissioner of the Bureau of Labor Statistics who has for years conducted investigations into working conditions, and the director of the Investigation and Inspection Service, at the request of the Secretary of Labor, have prepared the following memorandum defining the work of the two agencies:

The division of functions is indicated but not defined by the language of the act making appropriation for the new Investigation and Inspection Service, such appropriation being expressly granted for war emergency services. Every legitimate service is now a war emergency service. Every activity of both the Bureau of Labor Statistics and the Investigation and Inspection Service has both a war emergency and a permanent aspect. It is absolutely necessary that the two offices work together in complete accord. For example, it is intended that the Investigation and Inspection Service shall be responsible for the inspection of establishments, whether Government or private, which are engaged upon war work, to see that proper standards of wages and hours, hygiene, safety, and working conditions in general are established and maintained. Before standards can be enforced they must be evolved. The Bureau of Labor Statistics has collected industrial codes and regulations set up in the several States. All this material is, of course, available for the Investigation and Inspection Service, and the Bureau of Labor Statistics is pledged to render every assistance possible to the Investigation and Inspection Service in the formulation of standard codes, whether they shall be only war emergency codes or permanent codes. The inspection work proper belongs wholly to the Investigation and Inspection Service, but the agents of the Bureau of Labor Statistics shall report unsatisfactory conditions wherever found for the information of the Investigation and Inspection Service.

In general, the Investigation and Inspection Service will undertake investigations of a briefer character needed to secure information for more immediate use. If, however, the Bureau of Labor Statistics is engaged on an investigation and some department or office desires information quickly on that subject, the Bureau of Labor Statistics shall be called upon to furnish all the information in its possession before

additional field or other work shall be undertaken. If the Bureau of Labor Statistics has collected facts and materials which are needed and which are not in form for immediate use, such facts and materials shall be put at the immediate disposition of the Investigation and Inspection Service to be put in shape for use.

For example, the Bureau of Labor Statistics is in the midst of a study of labor turnover for the purposes of discovering the fundamental causes and of helping employers and employees to reduce to a minimum the demoralizing and extravagant shifting of workers from place to place. Any call coming to the Investigation and Inspection Service for relevant information on this subject shall be taken up with the Bureau of Labor Statistics to ascertain if the information is already available in that bureau. In the same way requests for information on labor turnover coming to the Bureau of Labor Statistics, if they can not be immediately and fully complied with, must be referred at once to the Investigation and Inspection Service. Requests for information regarding cost of living, industrial accidents and safety, industrial poisons, morbidity among workers, wages and hours of labor, and retail and wholesale prices shall be handled in like manner. When time can be saved by making use of the agents of the Bureau of Labor Statistics without detriment to the work of that bureau, such agents will be placed at the disposal of the Investigation and Inspection Service.

We strongly feel that the principles of this working agreement should be immediately extended to include the new Woman's Division, probably the Children's Bureau, and possibly other branches of the department.

WOMEN IN INDUSTRY SERVICE.

All industrial problems involving women will be dealt with by the Women in Industry Service. The immediate task of this service is to develop in the industries of the country policies and methods which will result in the most effective use of women's services in production for the War, while at the same time preventing their employment under injurious conditions. Stated more specifically, the purpose of this service is (1) To consider all general policies with respect to women in industry and to advise the Secretary of Labor as to the policies which should be pursued; (2) To keep informed of the work of the several divisions of the department in so far as they relate to women in industry and to advise with the divisions on all such work; (3) To secure information on all matters relating to women in industry and to collect such information into useful form; (4) To establish useful connections with all governmental departments and divisions on this subject and with voluntary agencies and societies. The Women's Division will be charged primarily with determining policies, but it will also be administrative and will cooperate with State departments of labor.

The Government's attitude toward the employment of women in war industries, as adopted by the War Labor Policies Board and approved by all the production departments, is stated in the following resolution, which is intended to operate as a guide in the work of the Women in Industry Service:

First. The shortage of labor in essential war industries should be met in part by further introducing women into occupations easily filled by them, such as clerical

and cashier service and accounting in manufacturing, mercantile, and financial establishments and in the offices of transportation companies and other public utilities, such as sales clerks and floor walkers in mercantile establishments, including among others department stores, specialty stores, shoe stores, men's furnishing stores, florists' shops, jewelry stores, drug stores, soda-water fountains, etc.

Second. Women should not be employed to replace men in occupations or places of employment clearly unfit for women owing to physical or moral conditions, as, for instance, in barrooms and saloons, in pool rooms, in or about mines, smelters, and quarries, on furnace work in glass works, etc. In addition, girls under 21 years of age should not be employed in occupations or places of employment clearly unfit for them owing to their youth, as, for instance, in the public messenger service, in street car, elevated, and subway transportation service, as elevator operators, as bell boys in hotels and clubs, etc.

Third. 1. The introduction of women into war industries or into employments involving special hazards such as the use of industrial poisons should be guided by the standards as to health, comfort, and safety set up from time to time by the War Labor Policies Board, in addition to the standards already defined by the Federal Government and by State labor departments.

2. The introduction of women into new occupations such as street railway service, public messenger service, etc., should be guided by regulations concerning hours of labor, night work, etc., such, for instance, as those adopted by the Industrial Commission of Wisconsin for street railway service and by the legislature of New York State for messenger service.

3. The recruiting of mothers of young children for war industries should be discouraged.

4. The introduction of women into positions hitherto filled by men should not be made a pretext for unnecessarily displacing men.

Services of the Division of Women in Industry should be sought by employers to advise on best methods of introducing women and the working conditions which should be established.

CIVILIAN INSIGNIA SERVICE.

The Secretary of Labor has authorized the issuance of national war industry badges as an insignia of distinction for industrial workers. These badges will be awarded to civilian workers employed for at least four consecutive months in certain essential war industries conforming to requirements prescribed by the Government, and which have adopted as a part of their Government contracts the National War Labor Board program announced in the President's proclamation of April 8, 1918.¹ Further recognition will be given for employment beyond four months. To deal with the problem of rewards for war workers and to inaugurate a system by which authorized badges or other rewards will be given for continuous and satisfactory service in war production, the Secretary of Labor has established the Civilian Insignia Service.

BUREAU OF INDUSTRIAL HOUSING AND TRANSPORTATION.

Provision for the housing and transportation of industrial workers is centered in the Bureau of Industrial Housing and Transportation, which was established in February, 1918, and is now conducting its

¹ See MONTHLY REVIEW for May, 1918, pp. 54-58.

work through the United States Housing Corporation of the Department of Labor. This corporation, of which Otto M. Eidlitz, director of the bureau, is president, was incorporated under the laws of the State of New York in June, 1918, the capital stock amounting to 1,000 shares of \$100,000 each, 998 of which are held by Secretary Wilson for the Government. The expenditure of \$100,000,000 appropriated by Congress for the housing of war workers, not including the \$60,000,000 to be expended for this purpose by the United States Shipping Board, will be directed by this corporation. It is recognized that adequate labor supply can not be secured and held at centers of ordnance manufacture unless the workmen and their families can have suitable dwellings. The function of the bureau is therefore to arrange for housing labor employed on Army and Navy contracts, by (1) Discovering and listing all vacant dwellings and rooms; (2) Organizing and maintaining room registries; (3) Opening up the suburbs through improved transportation facilities; (4) Commandeering available living quarters not otherwise in use; (5) Construction of new temporary or permanent dwellings and by building communities of houses where large operations are needed.

OTHER NEW AGENCIES.

The Labor Adjustment Service, which includes the mediation service, will supervise the same work as has formerly been conducted by the division of conciliation in the department, and will have jurisdiction over the settlement of strikes, lockouts, and other labor disputes. A statement of its activities appears regularly in the MONTHLY LABOR REVIEW (see pp. 232 to 237 of this issue). Besides a large force of conciliators there now exists the National War Labor Board¹, whose functions, however, are not to be confused with those of the Labor Adjustment Service. The former is primarily a court of appeal to decide questions at issue between employers and employees where adjustments have not been reached through the machinery of existing agreements or law.

The Information and Education Service has been established to develop, particularly among workingmen, sound public sentiment on labor questions and the real issues of the War. This is being done in cooperation with the Committee on Public Information. A speakers' bureau has been organized to keep a force of 12 to 15 speakers continuously on the road to take the story of the issues of the War home to the wage earners of the country. The service is also prepared to secure exchange of information between departments of the labor administration, and to promote in industrial plants local machinery helpful in carrying out the national labor program.

¹ See MONTHLY REVIEW for May, 1918, pp. 54-58, and MONTHLY LABOR REVIEW for July, p. 23.

The purpose of the Working Conditions Service is to examine into the matter of working conditions, including safety, sanitation, ventilation, etc.; to determine the standards as to conditions which should be maintained in the war industries; to adopt rules embodying such standards and explaining them; to determine the best means for securing the adoption and maintenance of such standards, and to cooperate with working conditions services of other Federal departments and with State authorities. The need for this service is suggested in the following statement taken from the official announcement made by the Secretary of Labor in establishing the service:

No successful administration of the adjustment of disputes can be established without a first-hand knowledge in the department of what working conditions really are in the essential war industries.

If a complaint that working conditions are unsatisfactory in any establishment is found justified the secretary must have a service which can secure a proper adjustment of such conditions.

If the mediation service or an adjustment board brings about the settlement of a labor dispute which requires some improvement of working conditions, there must be a branch of the service which will follow up such a settlement and see that it is carried into effect.

An inspection of working conditions in the essential war industries may disclose the fact that the standards, which vary somewhat among the several States, must be made uniform in order to maintain stability of employment.

The Training and Dilution Service will undertake to ascertain the best methods used in various plants and industrial establishments for training workers to do specific work; to ascertain the needs for such training of workers; to provide information on this subject to the various plants, industrial establishments and employees, and to promote such training wherever it is necessary or desirable; to inspect the operation of such training and to report thereon; and to cooperate with the United States Employment Service in all of this work. This service will also take up the problem of dilution, if necessary. This consists essentially in such a reorganization of work as to turn over to the unskilled workers a large part of the processes formerly done by skilled workmen. There are innumerable forms of dilution and they vary from trade to trade.

NATIONAL WAR LABOR BOARD.

While not holding membership in the Labor Department cabinet, the National War Labor Board is a most important factor in the organization of the labor administration. Its functions and duties have been fully explained in the MONTHLY REVIEW¹ and two of its recent decisions, involving the basic eight-hour day and the minimum wage, appear in the present issue (pp. 72 to 75). The National War

¹See MONTHLY REVIEW for May, 1918, pp. 54-58, and for June, pp. 54-56; and MONTHLY LABOR REVIEW for July, p. 23.

Labor Board has received the indorsement of the National Association of Manufacturers, which, by resolution recently adopted, placed itself on record as in favor of the policies and principles governing industrial relations for the period of the War as announced by the board and approved by the President. This resolution is as follows:

Whereas the National War Labor Board has been created by proclamation of the President of the United States, April 8, 1918, for the purpose of adjusting labor controversies without stoppage of production during the period of the War; and

Whereas the policies and principles which are to govern procedure of the said board were formulated and presented by the War Labor Conference Board appointed by the Secretary of Labor January 28, 1918: Therefore

Resolved, That the National Association of Manufacturers approve of the policies and principles so formulated and presented, and recommends that its members cooperate with the said War Labor Board to the end that the aims and purposes for which it was created may be effectuated.

The attitude of the National War Labor Board toward individual contracts was disclosed late in June when the announcement was made that it had instructed a section to order the General Electric Co. to eliminate individual employment contracts in its plant at Pittsfield, Mass., and to make no more such contracts in the future. The board also gave its approval to the principle of collective bargaining which it proposes, through its joint chairmen, Messrs. Taft and Walsh, to establish in the plant of the General Electric Co. A system of elections by which workers may choose committees to represent them in dealing with the employing firm will be devised by the board. Mr. Taft, speaking to the workers concerning collective bargaining, said:

The gentlemen constituting the section, Mr. Walsh and myself, shall also take up the question of representation and do with it as we, in justice, think should be done in order to secure proper representation for the men.

The statement of functions, powers, and duties of the National War Labor Board, which was made a part of the President's proclamation of April 8 creating the board, contains provision by which adjustment of a dispute may be effected, in cases where the board shall fail in its efforts to bring about a voluntary settlement between the parties or shall be unable unanimously to agree upon a decision, through an umpire selected by the board from among 10 suitable and disinterested persons named by the President, who shall hear and finally decide the controversy under simple rules of procedure prescribed by the board. These umpires were nominated by the President in July and are as follows:

Henry Ford, Detroit, Mich.; Matthew Hale, Boston, Mass.; James Harry Covington, Washington, D. C.; Charles Caldwell McChord, Washington, D. C.; V. Everit Macy, New York City; Julian William Mack, Chicago, Ill.; Henry Suzzallo, Seattle, Wash.; John Lind, Minneapolis, Minn.; William R. Willcox, New York City; Walter Clark, Raleigh, N. C.

BASIC EIGHT-HOUR DAY AND MINIMUM WAGE INVOLVED IN DECISIONS OF NATIONAL WAR LABOR BOARD.

The National War Labor Board recently made two important decisions affecting the questions of the living wage and the basic eight-hour day. In the first decision the board readjusted the existing wage schedules in eight plants, employing 3,000 men, at Waynesboro, Pa., fixing 40 cents per hour as the minimum rate to be paid any class of workers, including common laborers, and announced that it now has under consideration the question of determining the living wage which, under its principles, must be the minimum rate of wage to permit the worker and his family to subsist in health and reasonable comfort.

In the Waynesboro case the award of the board gives many of the workers wage increases greatly in excess of their demands, to gain which they were recently on strike. For instance, the minimum rate is fixed at 40 cents per hour, while the minimum rate demanded was 30 cents per hour. Until now common laborers at Waynesboro have been receiving as little as 22 cents per hour. The increase to the lowest-paid men, therefore, will be 81 per cent. Skilled workers were awarded the increases they demanded.

The second decision was made in the controversy between the Worthington Pump & Machinery Co. and its employees in the Blake-Knowles plant at East Cambridge, Mass., and in the Snow Plant at Buffalo, N. Y. The East Cambridge plant had been tied up for several days by a strike of 1,000 workmen. At both places the paramount issue was the application of the basic eight-hour day. A wage dispute formed a part of the controversy at East Cambridge. The section of the board assigned to the case readily came to agreement on the question of wages, but disagreed on the question of the application of the basic eight-hour day.

The controversy was referred by the section back to the entire board, which approved the section's award as to wages at the plant at East Cambridge, and decided, upon a resolution offered by Frank P. Walsh, one of the two joint chairmen, that the basic eight-hour day be installed at once at both plants; at the same time announcing that the board is considering the matter of the determination of what should be fixed as the proper working day. The decision to apply the eight-hour day at Buffalo and East Cambridge was predicated upon a statement of the Secretary of the Navy that a governmental necessity existed in the plants and that the Navy Department favored the installation of the basic eight-hour day in all plants engaged on Navy work.

For the purpose of carrying out the award the board retained jurisdiction over the Worthington Pump & Machinery Co. case, and

an administrator will be detailed to see that the award is enforced and made effective immediately.

The contention of the company in this case was that it was operating upon a fixed-price subcontract made on the basis of a ten-hour workday. The eight-hour law has been interpreted by some Government departments as not applying to subcontract shops. Under the award, if the company continues to employ its workers 10 hours a day, it will be necessary for it to pay them at the rate of straight time for eight hours and time and one-half for the two additional hours, or, in other words, 11 hour's pay for 10 hours' work.

The wage award in the case of the workers at East Cambridge grants them substantial increases, bringing the rates for machinists, specialists, and helpers up to the rate established in the Atlantic coast district by the Harbor Wage Adjustment Board of the Emergency Fleet Corporation.

The board decided that the following rates shall apply in the Blake-Knowles plant:

- Toolmakers—72 cents per hour;
- Machinists, first class—72 cents per hour;
- Machinists, second class—62 cents per hour;
- Specialists and handymen—52 cents;
- Helpers—46 cents.

Regarding the classification of machinists, the board decided that it will be unwise for it to fix an arbitrary figure as to the number of machinists to be specified in the first class. The board therefore recommends that individual cases—where disputes arise concerning classification of the employee—be decided by the contending parties on the merits of each particular case. The board feels sure that no difficulty will be experienced by the contending parties in handling this question.

DECISION OF THE BOARD IN THE WAYNESBORO CONTROVERSY.

The section of the board to which this case was originally assigned readily agreed that the rates of wages being paid throughout the industries at Waynesboro were far too low, in many cases being less than one-half the rates for the same type of work paid in the great industrial centers of the country. The wage demands of the workers were granted in every classification, with the exceptions of helpers and laborers whose periods of employment cover less than one month and who demanded 30 cents an hour, helpers and laborers whose periods of employment exceed one month and who demanded 35 cents per hour, and certain classes of semiskilled workers who demanded 35 cents per hour. In these cases the workers will all, of course, receive the minimum of 40 cents under the award.

The text of the decision in the Waynesboro controversy is as follows:

- (1) The number of working hours in this plant shall be the same as at present. The board hereby announces that it has under consideration the matter of the determination of the proper working-day and the decision here made will be subject to modification when and as the board come to a determination in that regard.
- (2) That time and one-half for ordinary overtime and double time for Sundays and those holidays fixed by the statutes of Pennsylvania be granted.
- (3) That the employers shall meet with committees of their own men in the various shops.
- (4) That pay days shall be once per week on companies' time and no more than three days' pay shall be retained.
- (5) That there shall be no discrimination against union men, and that the unions shall not be permitted to use coercive means to obtain their objects in any event.
- (6) The minimum rates of pay to be as shown below, the lowest rate in no case to be below 40 cents per hour.

Toolmakers, die makers, jig makers, gauge makers, and bench tool machinists.....	\$0. 60
Journeymen machinists, at least 4 years' experience.....	.55
Specialists, more than 3 years.....	.50
Specialists, more than 2 years.....	.45
Specialists, under 2 years.....	.40
Maintenance men, on maintenance repairs.....	.45
Maintenance men, repairing belts or oiling.....	.40
Acetylene welders, first 6 months.....	.45
Acetylene welders, over 6 months.....	.50
Men on cut-off saw, crane operators, tool crib, and storeroom.....	.40
Machinists' helpers.....	.40
Pattern makers.....	.65
Ironmolders and coremakers.....	.65
Blacksmiths, heavy forgers, tool dressers, drop forgers, and wheel builders.....	.65
Blacksmiths' helpers.....	.45
Boiler makers.....	.60
Boiler makers' helpers.....	.45
Flange turners and layer-out men.....	.65
Boiler maker specialists (such as operators of punches, planers, drill pressers, shearers, etc.).....	.55
Carpenters and joiners, bench hands, cabinetmakers, millwrights, and wood-working machine hands.....	.50
Painters, plumbers, sheet-metal workers, electricians, brick and stonemasons, and other miscellaneous mechanics:	
Over 4 years' experience.....	.60
Under 4 years' experience.....	.50
Cupola tenders.....	.40
Engineers, yard and shifting.....	.50
Wagon drivers.....	.40
Firemen, brakemen, and chauffeurs.....	.45
Storeroom and stock-room clerks, attendants, and time-keeping attendants.....	.45
Helpers and laborers.....	.40
Hammer men in cleaning rooms.....	.40

The board hereby announces that it has now under consideration the matter of the determination of the living wage, which under its principles must be the minimum rate of wage which will permit the worker and his family to subsist in reasonable health and comfort. That in respect to the minimum established by this finding it shall be understood that it shall be subject to readjustment to conform to the board's decision when and as a determination shall be reached in that regard.

(7) That apprentices be given an opportunity to learn a trade under circumstances as to character of work and compensation as may be agreed upon between committees of the men and their employers.

(8) That the request of the employees to the effect that all piecework and premium work be abolished be denied.

(9) That in case of depression, hours be reduced before men are laid off.

(10) That for the purpose of carrying out the award of the board the board retain jurisdiction over the Waynesboro case, acting through the section of the board already appointed on the case, or through an examiner directed by the secretary to see that the award is put in force and becomes effective.

(11) That the award of this board shall be retroactive as of May 28, 1918.

GOVERNMENT'S POSITION CONCERNING CHILD LABOR AND PRISON LABOR.

Since the Supreme Court declared the Federal child-labor law unconstitutional some doubt has arisen as to the attitude of the Government toward the employment of minors in establishments working on war contracts located in States having no child-labor law. The situation has been much clarified by the recent announcement of the War Labor Policies Board, composed of representatives of the various production departments of the Government, defining the position of these departments concerning child labor and also of prison labor. The policies board states that—

All work required in carrying out this contract shall be performed in full compliance with the laws of the State, Territory, or District of Columbia where such labor is performed. A contractor shall not directly or indirectly employ in the performance of this contract any minor under the age of 14 years, or permit any minor between the age of 14 and 16 years to work more than 8 hours in any one day, more than 6 days in any one week, or before 6 a. m. or after 7 p. m. Nor shall the contractor directly or indirectly employ any person undergoing sentence of imprisonment at hard labor which may have been imposed by a court of any State, Territory, or municipality having criminal jurisdiction.

The enforcement of the contract clause with reference to the employment of children has been placed by the policies board in the hands of the Secretary of Labor, who will utilize for this purpose the child-labor division of the Children's Bureau, which was delegated by the Secretary to issue certificates of age, inspection, and cooperation with State officials required for the administration of the Federal child-labor law recently declared unconstitutional. The centralization in the Department of Labor of the enforcement of this child-labor contract clause has the advantages of utilizing existing adminis-

trative machinery, with which employers and State officials are already familiar, and the avoidance of the confusion and duplication incident to enforcement by each department concerned.

CONSTITUTION AND FUNCTIONS OF A JOINT INDUSTRIAL COUNCIL.

The British Ministry of Labor has recently issued a pamphlet (H. Q. 7A) giving suggestions as to the constitution and functions of a joint industrial council. Down to the middle of June, 1918, this constitution had been made the basis of a draft constitution in 14 trades, reference to which is made in the next article. The full text of the suggestions as to constitution and functions of these councils is as follows:

The Whitley report on joint standing industrial councils, in discussing the constitution and functions of such councils, recommended that it should be left to the trades themselves to constitute schemes suitable to their special circumstances. The object of the following memorandum is not to lay down any hard and fast rules as to the constitution and functions of an industrial council, but to put forward certain suggestions which may serve as a basis for discussion and help in concentrating attention upon some outstanding points in the relations of employers and workpeople which must be taken into consideration in the actual formation of a council. Many of the clauses which follow are drawn from constitutions already drafted.

In a letter sent out by the minister of labor to the chief associations of employers and workpeople on October 20, 1917, the minister announced that "the Government desire it to be understood that the councils will be recognized as the official standing consultative committees to the Government on all future questions affecting the industries which they represent, and that they will be the normal channel through which the opinion and experience of an industry will be sought on all questions with which the industry is concerned." In order to secure such official recognition the minister of labor will require to be satisfied that the composition of the joint industrial council is such that it will be regarded by the industry as being truly representative of the industry. The associations of employers and workpeople in any given industry should therefore either directly, or through a joint committee, if such a body has been established by them to carry out the necessary preliminary negotiations, send in to the ministry of labor an application for official recognition at some time during the negotiations and before the council is actually formed.

(A) FUNCTIONS OF A JOINT INDUSTRIAL COUNCIL.

1. To secure the largest possible measure of joint action between employers and workpeople for the development of the industry as a part of national life and for the improvement of the conditions of all engaged in that industry.

It will be open to the council to take any action that falls within the scope of this general definition. Among its more specific objects will be the following:

N. B.—It is not possible and it is not the intention of the minister to suggest any hard and fast policy as to what should constitute the functions of an industrial council. This is a question which the employers and workpeople in each industry must settle for themselves in their preliminary conferences in the light of their special needs and conditions.

2. Regular consideration of wages, hours, and working conditions in the industry as a whole.

N. B.—In some cases a joint industrial council will contain representatives of a number of trades which have been accustomed in the past to deal with such questions as wages, hours, etc., through their already existing organizations. To meet such cases the following clause has been inserted in one of the draft constitutions: "*Provided*, That where any such matters have in the past been dealt with separately by any organization, such matters shall not be dealt with by the council as far as that organization is concerned without the consent of the representatives of that organization."

3. The consideration of measures for regularizing production and employment.

4. The consideration of the existing machinery for the settlement of differences between different parties and sections in the industry, and the establishment of machinery for this purpose where it does not already exist, with the object of securing the speedy settlement of difficulties.

5. The collection of statistics and information on matters appertaining to the industry.

6. The encouragement of the study of processes and design and of research, with a view to perfecting the products of the industry.

7. The provision of facilities for the full consideration and utilization of inventions and any improvement in machinery or method, and for the adequate safeguarding of the rights of the designers of such improvements, and to secure that such improvement in method or invention shall give to each party an equitable share of the benefits financially or otherwise arising therefrom.

8. Inquiries into special problems of the industry, including the comparative study of the organization and methods of the industry in this and other countries, and, where desirable, the publication of reports.

9. The improvement of the health conditions obtaining in the industry, and the provision of special treatment where necessary for workers in the industry.

10. The supervision of entry into, and training for, the industry, and cooperation with the educational authorities in arranging education in all its branches for the industry.

11. The issue to the press of authoritative statements upon matters affecting the industry of general interest to the community.

12. Representation of the needs and opinions of the industry to the Government, Government departments, and other authorities.

13. The consideration of any other matters that may be referred to it by the Government or any Government department.

14. The consideration of the proposals for district councils and works committees put forward in the Whitley report, having regard in each case to any such organizations as may already be in existence.

NOTE.—The following have also been included among the functions in some of the provisional constitutions which have been brought to the notice of the ministry of labor:

(i) The consideration of measures for securing the inclusion of all employers and workpeople in their respective associations.

(ii) The arrangement of lectures and the holding of conferences on subjects of general interest to the industry.

(iii) Cooperation with the joint industrial councils for other industries to deal with problems of common interest.

(B) THE CONSTITUTION OF A JOINT INDUSTRIAL COUNCIL.

1. MEMBERSHIP.

The council shall consist of —— members, appointed as to one half by associations of employers and as to the other half by trade-unions.

Associations of employers:

	Number of representatives.
(1).....
(2).....
(3).....
etc.
Total.....

Trade-unions:

(1).....	.....
(2).....	.....
(3).....	.....
etc.	.....
Total.....	.....

2. REAPPOINTMENT.

The representatives of the said associations and unions shall retire annually, and shall be eligible for reappointment by their respective associations and unions. Casual vacancies shall be filled by the association concerned, which shall appoint a member to sit until the end of the current year.

3. COMMITTEES.

The council may delegate special powers to any committee it appoints.

The council shall appoint an executive committee and may appoint such other standing or sectional committee as may be necessary. It shall also have the power to appoint other committees for special purposes. The reports of all committees shall be submitted to the council for confirmation except where special powers have been delegated to a committee.

4. COOPTED MEMBERS.

The council shall have the power of appointing on committees or allowing committees to coopt such persons of special knowledge not being members of the council as may serve the special purposes of the council, provided that so far as the executive committee is concerned: (a) The two sides of the council shall be equally represented, and (b) any appointed or coopted members shall serve only in a consultative capacity.

N. B.—It is desirable to take power to appoint representatives of scientific, technical, and commercial associations upon committees and subcommittees of the council, and the above clause would give this power.

5. OFFICERS.

The officers shall consist of a chairman or chairmen, a vice chairman, a treasurer, and a secretary or secretaries.

(1) The chairman.

N. B.—The Whitley report suggests that the appointment of a chairman or chairmen should be left to the council, who may decide that there should be (i) a chairman for each side of the council, (ii) a chairman and vice chairman selected from the members of the council (one from each side of the council), (iii) a chairman chosen

by the council from independent persons outside the industry, or (iv) a chairman nominated by such persons or authority as the council may determine, or, failing agreement, by the Government.

(2) Secretary.

The council shall be empowered to maintain a secretary or secretaries and such clerical staff as it may think fit.

All honorary officers shall be elected by the council for a term of one year.

6. MEETINGS OF THE COUNCIL.

The ordinary meetings of the council shall be held as often as necessary and not less than once a quarter. The meeting in the month of ——— shall be the annual meeting. A special meeting of the council shall be called within ——— days of the receipt of a requisition from any of the constituent associations or from the executive committee. The matters to be discussed at such meetings shall be stated upon the notice summoning the meeting.

7. VOTING.

The voting both in council and in committees shall be by show of hands or otherwise as the council may determine. No resolution shall be regarded as carried unless it has been approved by a majority of the members present on each side of the council.

8. QUORUM.

The quorum shall be ——— members on each side of the council.

9. FINANCE.

The expenses of the council shall be met by the associations and trade-unions represented.

10. RELATION OF A JOINT INDUSTRIAL COUNCIL TO THE GOVERNMENT.

It is desirable that there should be intimate and continuous touch between the industrial councils and the various Government departments interested, not only to secure prompt attention from the right officials, but also to obtain information as to what other councils are doing. To meet this need, the Ministry of Labor has, at the request of the Government, set up a special section dealing with industrial councils.

Where any industrial council so desires, a civil servant with the necessary experience will be assigned the duties of liaison officer by the Ministry of Labor. He will act only as and when required and in a purely advisory and consultative capacity, and will be available when desired for any meetings of the council.

By this means similarity of method and continuity of policy in the various industrial councils will be assured, and the experience and proposals of one council will be available for all the others.

11. DISTRICT COUNCILS AND WORKS COMMITTEES.

It will be necessary for the council when formed to consider the necessary arrangements for district councils and works committees if the conditions of the industry are such as to require them. Obviously existing local conditions and existing organizations will have to be taken into account and the variety of such conditions make it difficult to suggest any draft constitution which would be of value. The Ministry of Labor will, however, be glad to supply examples of existing schemes and other information at their disposal.¹

¹The report of an inquiry into works committees made by the Ministry of Labor and published as "Industrial Reports No. 2." It is reviewed on p. 81 to 84 of this issue of the MONTHLY LABOR REVIEW.

PROGRESS IN THE ESTABLISHMENT OF JOINT INDUSTRIAL COUNCILS
IN GREAT BRITAIN.¹

Constant reference in the debates in the House of Commons and in the daily press, and the attitude of members of the labor party to the report of the Whitley committee,² indicate the very great importance attached to the principle of industrial councils as defined by that committee, and that the establishment of such councils will be one of the most significant and far-reaching developments of the War, so far as labor is concerned. Public interest in the Whitley report suggestions is probably greater than in any other one reconstruction scheme. The Ministry of Labor is making every effort to enlighten employers and employees as to the functions of the joint industrial councils, and the minister himself is almost daily attending meetings arranged to enable him to meet associations of employers and workpeople in a given trade at the same time. Although practically every trade in the United Kingdom has the question under consideration, only two—the pottery³ and building trades—had, down to the middle of June, completed the organization of joint industrial councils and held their first meetings.

One other trade (heavy chemicals) had approved its draft constitution but had held no meeting, eleven trades,⁴ on the date mentioned, had proceeded to the extent of formulating a draft constitution, while in three trades (boot and shoe, tramways, and woolen and worsted) a provisional committee had been appointed and a conference held to consider the proposition. It appears that some trades which are very poorly organized are desirous of establishing councils, but the Ministry of Labor in such cases is acting with deliberation in the interest of justice to the employees.

During the discussion of the post-office budget in the House of Commons on June 12, several labor members advocated establishing some kind of joint council in that service. Replying to these members, the assistant postmaster general said that the matter was to come before the cabinet in a very short time. It is felt that the movement would receive great impetus should the post office establish a joint industrial council. The Ministry of Labor inclines to the belief that Government action, as in the post-office case, is necessary before full confidence is established in the trades. So far, the Government, while urging other employers to set up joint committees giving workers such a part in management as would stimulate their individual sense of responsibility, has refrained from setting the

¹ Data obtained through special representative of the U. S. Bureau of Labor Statistics in England.

² This report was published in Bulletin No. 237, U. S. Bureau of Labor Statistics.

³ This was the first industry to give effect to the recommendations of the Whitley report. See MONTHLY REVIEW for April, 1918, pp. 234-236.

⁴ Baking, cable making, carting, electrical contracting, furniture, gold, silver, and jewelry, leather goods and belting, printing, rubber, silk, vehicle building.

example. The common idea seems to be that the post office offers an exceptionally good opportunity to try out the scheme, as, generally speaking, the employees are mostly of an educated class somewhat above the average.

The Ministry of Reconstruction has just issued¹ a further report of the Whitley committee, dealing with conciliation and arbitration. While pronouncing definitely against compulsory arbitration or conciliation, they advocate a continuance of the voluntary scheme and suggest the establishing of a standing arbitration council, to which disputants may voluntarily refer such differences as they are unable to settle among themselves.

OPERATION OF WORKS COMMITTEES IN GREAT BRITAIN.

A supplementary report of the British committee on relations between employers and employees (the Whitley committee) dealing with works committees as a part of the industrial council plan now being put into operation in many industries in the United Kingdom appeared in the MONTHLY REVIEW for June, 1918 (pp. 163-165). These works committees, as stated in that report, are to be representative of the management and of the workpeople and are to be appointed from within the works. They are for the purpose of establishing and maintaining a system of cooperation as respects "many questions closely affecting daily life and comfort in, and the success of, the business, and affecting in no small degree efficiency of working, which are peculiar to the individual workshop or factory." The suggestion that such committees be established should not be taken to imply a new departure in industrial life. Works committees existed before the war, their functions extending over the whole of a works (or even in some cases the whole of two or three contiguous works) and were organized (1) to deal with particular questions affecting the conditions and remuneration of labor in a given works, (2) to act as a welfare committee representing as a rule all the workers, for the purpose of dealing with what may be termed works amenities—ventilation, sanitation and the like—and (3) to look after the social interests of the workers, such as games, recreations, study circles, picnics, etc. Since they furnish a means of direct contact between employer and workmen and serve to relieve established trade-union machinery of the innumerable questions arising from day to day in the shop, the growth of works committees has been encouraged. In view of this fact and also because of the impetus given the movement by the Whitley report, the British Ministry of Labor instituted

¹ Although dated Jan. 31, 1918, the report was not issued until June 14. It is reviewed on pages 237 to 240 of this issue of the MONTHLY LABOR REVIEW.

an inquiry as to the constitution and working of typical works committees in the chief industries where they were known to exist, including engineering, shipbuilding, iron and steel, boot and shoe, mining, printing, woolen and worsted, pottery, and furniture, with a view to bringing out the different objects, functions, methods of procedure and constitutions which have been tried in actual practice. The report of this inquiry was submitted in March, 1918, and published as Industrial Reports, No. 2, of the Ministry of Labor.¹ No conclusions are drawn nor is any ideal form of works committee outlined. The report merely presents the facts, pointing out the various difficulties which have been encountered and the various methods which have been devised to meet them, with the thought of furnishing a guide to those who are concerned with working out the problem of works committees for their own industry or their own establishment.

An introductory chapter traces the methods of works committees as they existed before the War, describing their relations to the shop steward system. It is stated that the majority of trade-unions have official shop stewards whose duties "apart from functions obviously intended to sustain the fabric of the trade-union—the collection of dues, the interrogation of defaulters and newcomers, and the like—* * * include the regular supply to the branch or district committee of information respecting any encroachment upon recognized trade-union conditions, participation in deputations to the management in connection with grievances, the calling of shop meetings of the members to discuss grievances, etc." In some trades, as for instance the building trade, shop stewards have organized into so-called works committees. In certain industries a function exercised by shop stewards, namely, the calling of shop meetings, appears to have formed the basis of the system of works committees. Such is the case in the furnishing trades where the meetings include all the trades in the works from which the shop steward may form a works committee, with a secretary. For the settlement of piece prices, however, it appears that certain unions in the furnishing trades work through their own shop stewards. In many cases, it is stated, conciliation boards are really works committees, this being so when the joint board is composed of representatives of the workpeople in one establishment and of members of the firm.

The report gives a number of causes which brought works committees into existence during the War. For instance, it is pointed out that the War has enhanced the position and prestige of shop stewards owing to the loss of the right to strike which deprives

¹ Great Britain. Ministry of Labor. Works committee. Report of an inquiry made by the Ministry of Labor. Industrial Reports, No. 2. [London, 1918.] 146 pp.

union officials of an important weapon. Matters of detail which need some shop machinery for their solution emphasize the importance of shop stewards and encourage the organization of works committees. "The problem of dilution has been one of the most potent forces in forwarding the movement toward works committees." Another cause was the establishment of committees connected with methods of remuneration growing out of the adoption of the practice of payment by results in trades where time work was the normal basis. Committees for the purpose of affecting improvement of time keeping are also mentioned as a contributing factor in the organization of works committees. The strain of the war has introduced conditions which have made it necessary to consider ways of promoting the physical welfare of the workers with the result that welfare committees have been established in many works giving the workpeople a voice in respect to the conditions under which they labor. Though they can hardly be called works committees these welfare committees may be said to prepare the way for the organization of such committees. Committees formed to administer war charity funds and to promote the social life of the workers are cited as forming the nucleus, if nothing more, of works committees.

The report goes into detail in describing the constitution of various works committees, which necessarily vary with the functions of the committees, but suggests that the best solution appears to be a committee of about a dozen shop stewards or trade-union representatives, with a chairman and a secretary elected for a definite period of six months or a year.

The procedure of existing works committees, so far as concerns the frequency and time of holding meetings, the remuneration of the secretary, the use of the referendum when important questions are to be decided by members, etc., is briefly noted, but "in the matter of procedure in the stricter sense of the term there is at present a good deal of variety." The normal procedure as given is somewhat as follows:

1. A workman who has a grievance will report it, directly or through the committeeman in his department, to the secretary. Lesser grievances, which do not affect a number of men or raise a general question, may be settled at once by the secretary with the foreman or department manager concerned.
2. Grievances which are not thus settled are taken up by the committee, and brought by the committee before the management.
3. If grievances or disputes are not settled with the management, they are carried to the branch or the district organization of the trade-union or trade-unions concerned, and they go henceforth along the ordinary channels of trade-union organization.

It is perhaps not necessary here to dwell upon the functions of existing works committees as is done in detail in the report, since

they are of so many different types that their functions vary considerably. In general it may be stated that the functions of works committees are practically always consultative rather than executive. It can suggest to the management and, as a last resort, induce a trade-union organization to call a strike, but it can not usually, as such, carry its views into action by any direct machinery.

The report discusses the relation of works committees to trade-unions. In conclusion, instances of the practical success of works committees are cited—this success depending “to a great extent on the existence of a spirit of counsel and understanding on both sides.”

If “the management door stands open” to all legitimate grievances, and if the men are ready to present their grievances and to take into consideration the difficulties of the management, the fundamental conditions are present. Much will always depend on the personalities concerned. Every human institution requires for its success the guidance of personalities. * * *

That works committees have, in the great majority of cases, tended to introduce greater harmony, and, through it, greater efficiency, is proved by the evidence of those concerned in their working. It is not denied that in some cases (though these are very few) works committees have failed. * * * In almost every case, however, the testimony is to the opposite effect. Sometimes introduced with difficulty and amid suspicion, committees have established themselves and done service which is acknowledged even by their original opponents. By providing a channel for the ventilation of grievances at an early stage, and before they become acute, they have prevented disputes and strikes, and they have improved time keeping and increased output. Nor is this all. The functions of works committees are not merely concerned with bringing grievances before the management, but also with a preliminary inquiry into grievances, in order to decide whether they are well grounded and serious enough to be brought before the management. The work which they do in this preliminary stage is not the least valuable part of their work, and, far from hampering the management, it obviously does the reverse and relieves the management of difficulties and grievances it would otherwise have to face.

The larger portion of the report is devoted to notes on individual works committees.

WAR BONUSES FOR GOVERNMENT EMPLOYEES IN GREAT BRITAIN.¹

An account of the first two awards made to employees in the civil service in Great Britain by the conciliation and arbitration board for Government employees was given in the MONTHLY REVIEW for August, 1917 (pp. 139-142).

The first meeting of this board was held on February 12, 1917, and up to the last of December 50 claims had been heard, of which 15 were settled by conciliation, 33 by arbitration, and 2 were outstanding. The board, which consists of three members, was formed “to deal by way of conciliation or arbitration with questions arising

¹ Record of the Proceedings for 1917 of the Conciliation and Arbitration Board for Government Employees, London, 1918, 16 pp. Price, 2d.

with regard to claims for increased remuneration (whether permanent or temporary owing to war conditions) made by classes of employees of Government departments other than classes of employees who are engaged wholly or mainly by way of manual labor of a kind common to Government and other employment and in respect of whom the board are satisfied, on the certificate of the Government department concerned, that adequate means for the settlement of such questions have already been provided, or that changes of remuneration always follow the decision of the recognized machinery applicable to the district generally. Provided that for the present and until experience has been gained of the working of the scheme, the board shall not entertain applications for permanent increases of salary from the more highly paid classes of employees of any Government department, namely, classes of officers with salaries of £500 (\$2,433.25) or over, or placed on scales of salary rising to £500 (\$2,433.25)."

The board, together with not more than three official representatives and not more than three representatives of the class concerned, or their association if one exists, will hear any claim which falls within its terms of reference (cabinet instructions). No stereotyped procedure is followed in its hearings but the proceedings are kept as informal as possible. The hearings are confidential and no verbatim report is taken though a record is kept of each one. An agreement is required from representatives of the claimants that they will abide by any decision and assurance is given that the Government will be similarly bound.

Since organization of employees has not made much headway except in the general post office, and since there are classes with rival associations, classes with only a small proportion of membership in the association, and classes with no association at all, it was decided to deal with the representation for each case on its merits, and in cases where outside associations represent employees to admit one such representative, who, however, can not be a signatory to any agreement arrived at by conciliation.

The following table shows the departments concerned in the 50 claims that have been heard and the manner in which those claims were dealt with. Twenty-three claims were for temporary increases on account of war conditions ("war bonus"), 22 for permanent increases, and 5 for both.

DISPOSITION OF CLAIMS HEARD BY CONCILIATION AND ARBITRATION BOARD FOR GOVERNMENT EMPLOYEES, GREAT BRITAIN, 1917.

Department.	Claims.	Settled by arbitration.	Settled by conciliation.	Out-standing.
General post office.....	20	14	5	1
Treasury ¹	7	5	2	
Ministry of munitions.....	4	2	2	
Admiralty.....	4	3	1	
Board of customs and excise.....	2	2		
Office of works.....	3	1	1	1
Board of trade.....	2	2		
Government chemist.....	2	2		
Board of inland revenue.....	2	1	1	
War office.....	2	1	1	
Chief secretary's office, Dublin.....	1		1	
Public record office.....	1		1	
Total.....	50	33	15	2

¹ Classes common to 2 or more departments.

The award of a war bonus in 1915 by Sir James Woodhouse to postal employees made no distinction between permanent and temporary employees. This plan was followed by the treasury in 1916, which, however, gave departments discretion to withhold or reduce the bonus in certain circumstances. The conciliation and arbitration board when called upon, immediately after their appointment, to deal with this question introduced a differentiation between permanent and temporary employees both in amount and in principle. The temporary employees' bonus was added not to existing rates but to those prevailing in July, 1916, on the assumption that while the pay for permanent employees had been fixed in times of peace with reference to normal conditions and because of the increased cost of living this had ceased to be a fair wage, the great majority of temporary employees had been appointed at a rate presumed to have been fixed by existing conditions. The fact that the number of temporary war employees in the civil service, outside the general post office, number approximately 120,000 makes this an important decision.

The first five awards made by the board in May, 1917, affected approximately 174,000 employees and gave the same increases as were provided for in award No. 1 which, including the awards of July, 1915, and September, 1916, allowed a total war bonus to permanent employees as follows—To those with salaries not exceeding 30s. (\$7.30) per week: Men, 9s. (\$2.19); women, 6s. (\$1.46); juveniles, 4s. (\$0.97); to those with salaries exceeding 30s. (\$7.30) but not exceeding 40s. (\$9.73) per week: Men, 8s. (\$1.95); women, 5s. (\$1.22); juveniles, 4s. (\$0.97); to those with salaries exceeding 40s. (\$9.73) but not exceeding 60s. (\$14.60) per week: Men, 7s. (\$1.70); women, 4s. 6d. (\$1.10); to those with salaries exceeding 60s. (\$14.60) per week but not exceeding £250 (\$1,216.63) a year: Men, 5s. (\$1.22); women, 3s. 6d. (\$0.85)—the new bonus to take effect from the 1st of January, 1917.

The award to temporary employees gave an additional 4s. (97.3 cents) a week to men, and 3s. (73 cents) to women, the total amount awarded to those with weekly salaries not exceeding 40s. (\$9.73), including bonuses granted previous to July 1, 1916, being 8s. (\$1.95) a week to men, 5s. (\$1.22) to women, and 4s. (97.3 cents) to juveniles, and to those whose pay exceeded 40s. (\$9.73) a week, 7s. (\$1.70) weekly to men, 4s. 6d. (\$1.10) to women, and 3s. 6d. (85.2 cents) to juveniles. The amounts awarded to date from January 1, 1917, and to be treated as an addition to wages on the 1st of July, 1916, any increases since that date, other than normal increases, being merged in the new bonus.

Awards Nos. 17, 18, and 19, taking effect from the 17th of December, 1917, were made as a result of an appeal from substantially the same organizations as those included in the first five awards, with the addition of a new association representing civil-service employees with salaries between £300 (\$1,459.95) and £500 (\$2,433.25) a year. Awards Nos. 1 and 2 were superseded, the total amounts granted (including those granted Sept. 9, 1916) being:

Award No. 17—To permanent employees with salaries not exceeding 40s. (\$9.73) per week: Men, 14s. (\$3.41); women, 9s. (\$2.19); juveniles, 7s. (\$1.70); to those with salaries exceeding 40s. (\$9.73) but not exceeding 60s. (\$14.60) per week: Men, 13s. (\$3.16); women, 8s. 6d. (\$2.07); juveniles, 6s. 6d. (\$1.58).

Award No. 18—To permanent employees with salaries exceeding £156 10s. (\$761.61) a year, but not exceeding £250 (\$1,216.63): Men, 15 per cent of salary, minimum £34 (\$165.46); women, two-thirds of men's bonus; to those with salaries exceeding £250 (\$1,216.63) but not exceeding £350 (\$1,703.28): Men, 12 per cent of salary, minimum £37 10s. (\$182.49); women, two-thirds of men's bonus; to those with salaries exceeding £350 (\$1,703.28): Men, 10 per cent of salary, minimum £42 (\$204.39); women, two-thirds of men's bonus.

Award No. 19.—To certain temporary postal employees, with salaries not exceeding 40s. (\$9.73) per week: Men, 14s. (\$3.41); women, 9s. (\$2.19); juveniles, 6s. 6d. (\$1.58); to those with salaries exceeding 40s. (\$9.73) per week: Men, 13s. (\$3.16); women, 8s. 6d. (\$2.07); juveniles, 6s. (\$1.46).

A claim for the bonus for temporary employees to be considered as wages was not conceded. The award for the remainder of the temporary employees was still outstanding when the report was issued.

Certain applications for war bonus were dealt with specially, notably those from employees who, although not themselves engaged on manual duties, are employed in close proximity to, and often

recruited from, workmen receiving the full amount of war bonus awarded by the committee on production to engineering, etc., trades. The writers' association in the war department was given the war bonus award to permanent employees as in No. 1 with the modification that the bonus should count for overtime. In the army ordnance department in Woolwich Arsenal foremen receiving less than 48s. (\$11.68) weekly were raised temporarily to that figure as from April 1, 1917. In the royal ordnance factories permanent foremen were granted a temporary increase in their bonus of 11s. (\$2.68) in addition to an earlier one of 5s. (\$1.22), but an increase in the permanent scale was denied; temporary foremen might have their maximum rate extended at the discretion of the chief superintendent to 95s. (\$23.11), an increase of 6s. 6d. (\$1.58) above the bonus granted to permanent foremen. Designers and draftsmen were given an additional bonus of 6s. (\$1.46) a week as from August 1, 1917 (i. e., 14s. (\$3.41) in all to the lower grade and 10s. (\$2.43) to the higher grade). Principal foremen writers and foremen writers received an increase in maximum rates of 5s. (\$1.22) and a selected number, not exceeding six, should be eligible for a maximum increase of 10s. (\$2.43) weekly, making the maximum weekly pay for the first class 110s. (\$26.77) and 115s. (\$27.98), respectively, and for the second class 84s. 6d. (\$20.56). These various increases affect about 3,000 persons.

Unestablished messengers in the Admiralty were given a temporary increase of 3s. (73 cents) a week and certain improvements in overtime, but were denied permanent increase; assistant clerks, about 4,800, were given an increase of £2 10s. (\$12.17), rising by £10 (\$48.67) increments from £130 (\$632.65) to a maximum of £170 (\$827.31) per annum, the arrangement to be provisional for the duration of the War and pending the consideration of the position of the class. Admiralty and Outports Clerical Federation were denied an extensive system of regrading, but were granted minor improvements in remuneration. Sixteen assistant civil engineers in the Admiralty were granted an increase of £50 (\$243.33) in the maximum, and any clerk who remained for seven years on the new maximum without promotion should be allowed to proceed further by £20 (\$97.33) increments to £550 (\$2,676.58). While the claim of about 600 second-class and assistant draftsmen employed at from 39s. (\$9.49) to 43s. (\$10.46) a week, with a war bonus of 12s. (\$2.92), for the extension to them of the war bonus granted to workmen by the committee on production was not granted, an increase in their war bonus of 2s. (49 cents) as from August 1 and a further increase of 4s. (97 cents) from December 17 was ordered.

In the post office department about 2,300 provincial clerical employees were granted an increase in wages as from February, 1914,

but their claim for a reduction in hours was denied. This same award (amount not stated) was made to 57 clerks in the surveyors' department of the general post office, and a permanent increase with no change in hours was given to 154 second and third class clerks in the superintending engineer's office. The National Federation of Subpostmasters, about 23,000 persons, claimed an increase in the scale paid them in dealing with army and navy allowance forms and exchequer bonds to date from the beginning of the war. The first claim was not allowed, but the rate for war-loan work was raised from £6 (\$29.20) to £8 (\$38.93) per thousand transactions. Unestablished draftsmen, engineer in chief's office, 17 persons, were given an increase in the maximum of 15s. (\$3.65) weekly and better opportunities to become established employees.

In the marine department, board of trade, the maximum salary for 151 surveyors was raised from £400 (\$1,946.60) to £450 (\$2,189.93) per annum, the board of trade having raised the minimum from £200 (\$973.30) to £250 (\$1,216.63).

Second and third class valuers, inland revenue, about 100 persons, were granted the same bonuses as those given in awards 17, 18, and 19, as were 40 architectural assistants in the office of works and 25 temporary chemical assistants in the Government laboratory. The remainder of the cases in which awards were made involved only a few persons—not more than three or four in each instance.

In four cases affecting a total of about 3,370 persons it was held that the claims had not been established.

The percentage which the bonus forms of the weekly pay in awards 17, 18, and 19, which affect altogether nearly 180,000 persons, a large majority of those to whom additional pay was given, is, for those receiving 40s. (\$9.73) weekly, 35 per cent for men, 22.5 per cent for women, and 17.5 per cent for employees under 18 years of age, while to those whose yearly salaries are more than £350 (\$1,703.28) a bonus of 10 per cent is allowed to men and 6.7 per cent to women.

The committee had a considerable number of claims for permanent increases which were the result of differences of long standing. Some of these have been settled by agreement, others by award, but regarding claims for permanent increases originating since the outbreak of the War the committee has refrained, except in a few cases of minor adjustments, from making any modification of the permanent scale.

BRITISH RECONSTRUCTION PROGRAMS FOR THE ELECTRICAL, THE ENGINEERING, AND THE IRON AND STEEL TRADES.¹

In April, 1916, the British Board of Trade appointed a committee "to consider the position of the electrical trades after the War with special reference to international competition, and to report what measures, if any, are necessary or desirable in order to safeguard that position." July 31, 1916, a committee was appointed to give similar consideration to the engineering trades and another to devote itself to the iron and steel trades. By July, 1917, these committees had handed in their reports. In each some consideration is given to the position of the trades before the War, and to changes effected by the War. This general discussion is followed by recommendations, which are along much the same lines in all three reports. These recommendations, although they have no authoritative weight, are of importance both as being the considered views of leading manufacturers, capitalists, and public men and as indicating the probable trend of the development of British industries after the war. Hence it appears worth while to give them in full, except for a few sections relating to English customs in regard to trade-marks and patents. The important agreements and differences of the three reports may be briefly summarized as follows:

PROTECTION AGAINST FOREIGN COMPETITION.

All three ask that the importation of manufactures of their particular industries from the present enemy countries be prohibited for varying periods of from one year after the end of the War upward. The reports on the engineering and the iron and steel trades also recommend surtaxes on imports of any kind from these countries, always excepting raw material needed for British manufactures. The reports on the iron and steel and the electrical trades both ask for restrictions on the activities within Great Britain of industrial and commercial enterprises owned altogether or in large part by foreigners, and the last-mentioned report specifically asks that foreign investments in such enterprises be limited to 25 per cent of the capital stock.

All three reports ask for the prohibition of dumping. Protective duties against all manufactured products are asked for by the committees on the electrical trades and on iron and steel, although two members of the last-mentioned committee published a dissenting opinion. The committee on the engineering trades could not

¹ Great Britain. Board of Trade. Departmental committee on the iron and steel trades. Report on the position of the iron and steel trades after the War. London, 1918. Cd. 9071. 50 pp. Price, 6d. net.

Departmental committee on the electrical trades. Report on the position of the electrical trades after the War. London, 1918. Cd. 9072. 14 pp. Price, 2d. net.

Departmental committee on the engineering trades after the War. Report. London, 1918. Cd. 9073. 54 pp. Price, 6d. net.

reach unanimity on this subject, so published no recommendations, but in the body of the report declared:

The majority of us believe that the financial needs of the country after the War will compel the imposition of custom duties for revenue purposes and will thus automatically bring about the system of trade protection which the majority of the committee believe to be necessary.

The report on the iron and steel trades asks for an elaborate system of maximum, minimum, and general tariffs, by the application of which preferential treatment may be secured from other nations. Preferential tariffs as between the present Allies are also suggested.

FREEDOM FROM GOVERNMENT RESTRICTIONS.

The committee on the engineering trades asks that the "controlled establishments" be released from control and given a Government subsidy to help them through the period of adjustment to an independent and competitive position. The committee on electrical trades limits its recommendations to a request for a reform of the legislation and conditions under which electrical enterprises are carried on, but in the body of the report complains seriously of the handicap of regulations which "are directed primarily to secure the safety of the public and secondarily to secure a proper and sufficient supply of electricity," and which at the best are apt to be based on local considerations rather than on the good of the industry as a whole. The report on the iron and steel trades makes no recommendation on the subject.

LIBERTY OF COMBINATION.

The report on the engineering trades asks that combination among manufacturers be encouraged, the report on the iron and steel trades asks not only that combination be permitted but that on occasion Government aid shall be given combinations in order that they may establish large plants (see section 16, under "Organization in the iron and steel trades"), while the report on electrical industries asks for recognition of the advantages of combination and for official cooperation with such action. The effect of such combinations upon prices is ignored in the recommendations, but references to it are found in the reports. The committee on the electrical trades is convinced "that under properly organized combination or association the cost of production will be materially reduced, and that there is no reason to fear that enhanced prices will be charged to the consumer as a result of such combination." On the other hand, two members of the committee on the iron and steel trades put themselves on record as believing it to be imperative "that safeguards should be provided by the Government against the raising of prices unduly against the consumer and to the disad-

advantage of labor." The committee on the engineering trades thinks that if the trades were properly organized and various other conditions fulfilled, it should be possible "to maintain wages at a high level, to maintain the present hours, and yet to produce an increased output at a lower selling price than heretofore."

LABOR QUESTIONS.

All three reports agree that relations between labor and capital must be improved. The report on the electrical trades contains no discussion of this subject, but includes it in the recommendations. The report on engineering trades is of especial interest in this matter, because these trades have been carried on under the treasury agreement by which the workmen gave up their trade-union customs, so far as they tended to restrict output, under a pledge from the Government that these customs should be restored at the end of the War. The recommendations make no reference to this pledge, but distinctly declare that labor should give up permanently its former customs in this respect. The brief recommendation as to female labor is also of interest. So many women have entered these trades, and the question of what attitude is to be taken toward them at the return of peace is so important, that it seems worth while to supplement the recommendations with a quotation from the body of the report:

It seems to us that the continuance of a certain amount of female labor is both necessary and desirable. So many boys have been undertaking men's work that, as one witness put it, "Boys will be men and girls will be boys." But we do not look upon female labor in the engineering trades as likely to be permanent, or that many will be permanently employed. The feeling of the workingman has always been the honorable one of desiring to support his wife without requiring her to earn; and marriage has always been, and we trust will always be, a reason for the discontinuance of factory work by women. We think, however, that those women who are already employed should, in all fairness, be offered the right to continue in the work they have undertaken; and we consider that, within the limit of their strength, they are fully capable of doing good work and that for a time, at any rate, their services will be needed.

As marriage will in most cases take them out of engineering work it is of very little use for them to spend time acquiring all-round knowledge at the expense of the increased output attained by confining them to one or a few operations only. * * * One advantage to the boy apprentice would accrue from giving women a large share of small repetition work; it would free him for the general work that affords the proper training for the skilled man.

The recommendations of the committee on the iron and steel trades are of special interest in their emphasis on the importance of the complete unionization of labor, and in their advocacy of the principle of the financial responsibility of an association for the acts of its members.

The committee on the electrical trades is the only one which fails to make some recommendation concerning a supply of skilled labor. The other two reports advocate the reestablishment of apprenticeship, with an extension of the school age, and provision for part-time training after apprenticeship has begun.

CAPTURE OF FOREIGN MARKETS.

All the reports agree that the British manufacturer has been at a disadvantage, as far as export trade is concerned, with his German competitor. Part of this has been due to the superior selling organization of the Germans, part, it is claimed, to discrimination in freight rates in their favor, part to the activities of the German consular service in aiding to secure a market for German products, part to the policy of German financiers, who, when making loans for development projects, attach a condition that part or all of the plant must be bought from German manufacturers, and a part, it is admitted, must be ascribed to the attention paid by the Germans to offering what the foreigner wanted, put up in the way he preferred, offered on terms which suited him, and advertised in a language which he could understand. In some of these respects, the British manufacturers can put themselves on an equal footing with their competitors by their own efforts, but for others Government aid, changes in the financial system, and other alterations are needed. Hence the recommendations found in each report for improved means of transport and regulation of freight rates and for the establishment of industrial banks or other means of securing financial help.

RECONSTRUCTION PROGRAM FOR THE GENERATION AND DISTRIBUTION OF ELECTRICAL ENERGY IN GREAT BRITAIN.

In April, 1917, the British subcommittee on coal conservation presented an interim report which has recently been made public.¹ The report contains a discussion of the waste and inconveniences of the present system of power supply, of the importance of electrical power to the industries of the Kingdom, and of the economies and incidental advantages of substituting a comprehensive system of generation and distribution of electric power for the present haphazard and piecemeal methods, together with recommendations for such a system. It also contains appendixes on the consumption of coal per horsepower-hour for power purposes in the United Kingdom, on the legislative restrictions on existing electric undertakings, on alternative types of electric power organizations, on fuel economy on the northeast coast as a result of electric power supply, and

¹ Great Britain. Ministry of Reconstruction. Coal conservation subcommittee. Interim report on electric power supply in Great Britain. London, 1918. Cd. 8886.

recommendations from the Incorporated Association of Electric Power Companies as to the constitution and scope of the proposed tribunal for dealing with the electric supply industry.

The present method of generating and distributing electric power is said to be wasteful, unsatisfactory, and expensive, but it can hardly be improved without material changes in the legislation relating to electrical enterprises. In 1882, when electricity was used mainly for lighting purposes, Parliament passed an act empowering the Board of Trade to license companies for the public supply of electricity in defined areas subject to "the right of the local authorities over these areas to purchase the works and mains of the concessionaires at the end of 21 years at the then value," and thereafter to carry on the works themselves. In 1888 the purchase period was extended to 42 years, with recurring periods of 10 years thereafter. Under this legislation a number of small enterprises, both municipal and private, sprang up. About 1898, owing to the development of the electric motor, the use of electricity as power became possible, but it was found that the small undertakings then in existence were not adequate for the supply needed, and that the legislative provisions in force discouraged the formation of large companies. New acts were passed giving power companies the right to supply power over large areas, and granting them these rights in perpetuity, but imposing two other restrictions which in practice were found equally detrimental, namely:

1. The prohibition of supply within areas of authorized distributors without the consent of such authorized distributors.
2. The exclusion of large towns from the power companies' areas, owing to the powerful political intervention of their municipalities.

These restrictions hampered the development of large companies, and electrical undertakings continued small and relatively inefficient. The fact that the industries of England had been built up on steam power and that the adoption of another form of energy would involve scrapping costly plants lessened the incentive to use electricity as a motive force and cooperated with the legislative restrictions to keep the industry in an undeveloped state. Consequently, at the present time there are over 600 electric areas in Great Britain, each with its own system of generating and supplying electricity, these systems differing so widely in voltage and frequency that there is little possibility of combining them.

Approaching this situation from the point of view of coal conservation, the report points out that the coal consumption involved in the production of motive power in the United Kingdom amounts to 80,000,000 tons per annum, that industrial progress is to be made not so much by reducing the total coal consumption as by increasing

the output for a given coal consumption, and that the present coal consumption would, if used economically, produce at least three times the present amount of power. Electrical energy is the most effective form in which power can be applied to industry, and electricity can be most economically generated in large plants with generating machines of 50,000 horsepower or more. Moreover, such plants will ultimately involve great economies of capital by securing a better load and a more effective use of the plant. Through a main trunk distribution system these plants should supply electric power wherever it is wanted.

The recommendations as to the installation of such a system and the discussion of the form of ownership and management under which it can best be carried out follow in full:

RECOMMENDATIONS.

(1) It is essential that the present inefficient system of over 600 districts should be superseded by a comprehensive system in which Great Britain is divided into some 16 districts, in each of which there should be one authority dealing with all the generation and main distribution.

(2) Centers, or sites, suitable for electric generating purposes should at once be chosen on important waterways as the future main centers of supply for each of the districts into which the country is to be divided.

(3) The sites so chosen should be as large as possible, having in view the land available in suitable localities, and should have ample water and transport facilities. Land is required not only for the power stations themselves—which for the sake of security and safety would have to be suitably subdivided, that is, they would not be contained all in one building—but for the processes involved in the extraction of by-products from the coal before it is used for the production of power, where such extraction is found to be justified. It is also required for the development of electro-chemical processes, which may be most conveniently carried on in close proximity to the power plant. This condition entails the sites being chosen outside, not inside, towns. (The health of the great industrial centers and the congestion of the railway lines in their neighborhood would be radically improved by arranging that the conversion of coal into motive power was carried out away from the densely populated centers.)

(4) Plans should be prepared for the construction immediately after the war on these sites of the first installment of large superpower plants capable, first, of supplying, through a comprehensive electric power distribution system which must also be arranged for, the existing demands of the community; and, secondly, of supplying electrical energy at the lowest possible price for new processes and manufactures.

(5) Such plants would be designed so that, as methods are perfected for extracting by-products from the fuel before using it for the purpose of the production of electric power, the by-product plant can be combined with the power plant. Each site should be laid out with this in view, and with a view to the unrestricted extensions of the plant as required.

(6) Power available from surplus gas or waste heat should be turned into electrical energy on the spot in local plants which would feed into the main distribution system. As regards waste coal, i. e., coal which it does not at present pay to bring to the surface—this could, where transport was the ruling consideration, also be used on the spot.

(7) Once these plants are in existence it would be possible for existing authorities, without any risk of being left in the lurch, to stop extensions of their own uneconomical stations, situated as they mostly are on cramped and unsuitable sites, and to arrange to take their power from the main system.

(8) With a view to carrying out the policy advocated, a board of electricity commissioners should be appointed, with full powers to deal with the electricity supply system throughout the country. They should have power, *inter alia*—

(a) To stop the extension or multiplication of uneconomical stations for public supply.

(b) To arrange for the handing over, on equitable terms, of the generation, transmission, and main distribution system in each of the areas into which the country is to be divided, to a new electricity body appointed for that area.

(c) To standardize for each area the frequency and voltage of the main transmission and distribution system.

(d) To settle for each area whether such body should consist of a parliamentary company working under adequate control as regards limitation of dividends, etc., or one of the other alternatives given in Appendix C.

(9) Alternative types of the new electric power organizations are described in Appendix C. In reference to these alternative types the subcommittee are impressed with the special need for initiative and resource in the management of the business of power supply, and they are of the opinion that the freedom of range and keenness which are distinctive of private enterprise will be found to be in a high degree conducive to the fullest measure of success. The subcommittee consider that if the nation is to get immediately an efficient power supply, and is to take advantage of the temporary lull in manufacturing output immediately after the war, State assistance in some form may be necessary.

APPENDIX C.

ALTERNATIVE TYPES OF ELECTRIC POWER ORGANIZATIONS.

In considering the composition of the proposed new bodies to deal with the supply of electricity in each of the areas into which the country should be divided, a number of alternatives present themselves, namely:

(a) A combination of all companies and local authorities in each industrial district (as defined by the commissioners).

(b) Where there is already a power company (statutory) in the area, all the other electricity undertakings, both company and municipal, to be taken over by the power company on terms arranged by the commissioners.

(c) Where at present the supply is dealt with by a number of comparatively small undertakings, both company and municipal, but where the company undertakings predominate, a new company to be formed, possibly by an amalgamation of existing companies, to which the whole of the undertakings in the area would be transferred.

(d) Where the supply is dealt with as in (c) but the company concerns do not predominate, and where local feeling is strongly against a purely company scheme, a local board to be formed, representing both company and municipal interests and under the control of the commissioners, which would be invested with full powers to take over and carry on the whole of the undertakings, both municipal and company, in the area.

(e) Public or joint ownership as in (d) with company operation.

It is taken for granted that under any of these alternatives the electricity commissioners would have power to fix maximum prices and a sliding scale of prices and dividends, and to control the terms upon which capital should be raised, etc.

(a) *Combination of all existing undertakings.*—Although every one of the undertakings in the area, whether company or municipal, might admit that only by combination and concentration can economy be obtained, the attempts which have been made in the past to bring about a combination of existing concerns have shown that the interests are so conflicting that they can not be reconciled by the interested parties acting alone. It is true that agreements for exchange of electricity have been made, but all attempts to bring about central control have failed.

(b) *Power company to take over all undertakings.*—A power company having been formed for the purpose and equipped with the necessary statutory powers appears at first sight to be the right body to entrust with the business of supplying the whole of the industrial district in which its own area of supply is situated; and where the power company is already established on a sound commercial and technical basis, and has shown by its development in the past that it understands its business, this method is probably the best. * * *

The statutory powers of power companies carry with them such obligations as have been found to be ample to protect the interests of the community, but if further safeguards, in addition to the control by the electricity commissioners, were desired, they could be imposed by Parliament.

(c) *New company.*—Where no power company exists, or where the power company has not developed any very large business, a new company might be formed to take over all the existing undertakings. Local private enterprise might be encouraged to assist in the formation of the new company, with the guidance of the electricity commissioners, who should also settle the terms upon which the new concern would take over and carry on the business, and the statutory powers required, which would be embodied in a special act on the lines of the present power acts.

(d) *Local electricity board.*—In an area where municipal enterprise predominated the establishment of a company to take over everything, both municipal and company, might create local feeling which would be detrimental to the business. On the other hand a purely municipal concern would be equally impracticable, since the claims of county councils, city corporations, and urban and rural district councils could scarcely be reconciled. A local board appointed by the State, subject to the control of the electricity commissioners, appears to be the only alternative available if private enterprise is to be ruled out. The objection to such a method is, of course, the usual objection to all purely State undertakings, namely, that they are without incentive for the proper pushing of the business which in the case of power supply requires enterprise and resource if the best results are to be obtained, not only for the power supply business, but for the consumer and for the nation.

(e) *Public or joint ownership with company operation.*¹—By this method economy in capital and interest charges is secured, while the commercial development of the business on proper lines is secured by the incentive of bigger profits which the operating company would have, subject, of course, to the safeguards against high prices in the form of a sliding scale of dividends and prices—auction clauses, etc., already referred to.

¹ Cooperation between municipal and private enterprise in the electricity supply business has had some success in Germany. See Consular Report No. 685 on the Supply of Electricity in Germany, Cd. 7049. A scheme embodying this principle has actually been worked out in some detail by the London County Council for dealing with London. Its progress was stopped by the outbreak of war, but the reports and papers relating to it are of considerable interest.

NEW REGULATION OF THE WAR SUBSIDIES AND COST-OF-LIVING BONUSES OF GERMAN GOVERNMENT EMPLOYEES.

Paul Taubadel, member of the Reichstag, writes in the *Internationale Korrespondenz*¹ on the subject of war subsidies and cost-of-living bonuses, as follows:

The enormous increase in the cost of all foodstuffs and necessaries that has taken place during the War has caused great distress to German Government employees, particularly to the low-salaried employees (*Unterbeamte*). While salaried employees and workmen employed in the war industries have succeeded in obtaining wage increases and high-cost-of-living bonuses, the salaries of Government employees remained stationary. The entrance salaries of 1,200 to 1,400 marks (\$285.60 to \$333.20) per year paid to low-salaried officials (*Unterbeamte*) are so low that even during peace times they were insufficient to provide sustenance for them in a manner fit for human beings. How then could they be expected to exist on them during the war? Some of them tided over the hard times by expending their small savings or by selling such household articles as could be dispensed with. Those that had no savings nor anything to sell obtained the necessaries of life by contracting debts. Persons familiar with the conditions of Government employees assert that during the war the indebtedness of Government employees has attained enormous proportions. Like so many groups of the working and middle class, the low and medium salaried Government officials have degenerated economically. The honesty of these officials has suffered thereby. Of the numerous thefts which of late have occurred in the mail and railroad service not all were committed by substitute employees, but quite a number of them by permanently employed officials. Statistics show that in the imperial mail service 85 per cent of the thefts were committed by substitute employees and 15 per cent by permanent officials. Although representatives of the various political parties in the legislatures repeatedly had urged the Governments to improve the conditions of Government employees through salary increases or grants of high-cost-of-living bonuses the Imperial and Federal Governments let a long time elapse before they determined to relieve the unbearable economic condition of their employees by the grant of bonuses. The amount of these bonuses, however, has never kept pace with the steadily increasing cost of living, so that the economic condition of the Government employees did not improve at all but rather became worse. As a consequence feeling among Government employees is very bitter and the legislatures have been flooded with petitions requesting aid. Finally in December of last year all married Government employees were granted a lump-sum bonus of 200 marks (\$47.60) and an additional 20 marks (\$4.76) for each child. This grant was intended to cover the most pressing needs and a further substantial increase of the cost-of-living bonuses paid currently was promised to the employees for the near future.

According to a law enacted by the Prussian diet this further increase of the currently paid cost-of-living bonuses became effective on April 1, 1918. Before giving data as to the present amount of these bonuses a few words should be said about the system according to which these bonuses have been paid hitherto. The Government has chosen such an artificial and intricate system that not even all the Government employees themselves are familiar with its working. Instead of inaugurating a uniform bonus system the Government differentiates between war subsidies, lump-sum bonuses, and currently paid bonuses. War subsidies (*Kriegsbeihilfen*) have been paid to all Government officials whose annual salary does not exceed 7,800 marks (\$1,856.40). The war subsidy for low-salaried married officials (*Unterbeamte*) amounted to 15 marks (\$3.57) per month with an additional 12 marks (\$2.86) per month for the

¹ *Internationale Korrespondenz*. Berlin, Apr. 2, 1918.

first child, 13 marks (\$3.09) for the second child, and so on, the bonus for each further child increasing by 1 mark (23.8 cents) per month. The war subsidy for medium-salaried officials (*mittlere Beamte*) amounted to 12 marks (\$2.86) per month, with an additional subsidy of 11 marks (\$2.62) for the first child, 12 marks for the second child, etc. Higher officials with a salary not in excess of 7,800 marks received a war subsidy of 10 marks (\$2.38) for the first child, the subsidy for each further child increasing by 1 mark. Single officials with a salary not in excess of 2,300 marks (\$547.40) received a war subsidy of 10 marks per month. The new law makes no changes in these war subsidies and they will continue to be paid in the same amounts as hitherto, only the currently paid high-cost-of-living bonuses (*laufende Kriegsteuerungszulagen*) have been increased by this law. Up till now these latter bonuses amounted to 360 marks (\$85.68) per year for low-salaried married officials, to 540 marks (\$128.52) for medium salaried married officials, to 720 marks (\$171.36) for higher married officials with a basic salary not in excess of 7,800 marks, and to 840 marks (\$199.92) for higher married officials with a basic salary of more than 7,800 marks. For each child this bonus was increased by 10 per cent. For single low and medium salaried officials this bonus amounted to 300 marks (\$71.40) per year.

Beginning with April 1, 1918, these high-cost-of-living bonuses were increased to the following rates: (1) Married officials: Low-salaried officials, 600 marks (\$142.80) per year; medium salaried officials, 700 marks (\$166.60); higher officials, 800 and 900 marks (\$190.40 and \$214.20), respectively, with an additional 10 per cent of these amounts for each child. (2) Single officials: 70 per cent of the bonus paid to married officials of the same salary class. Formerly the amounts of the high-cost-of-living bonuses were the same in all localities. An official of the same salary class in Berlin received the same bonus as his colleagues in East Prussia or in the Rhine Province. Beginning with April 1, 1918, this order of things ceased. A distinction is now being made between localities in which the cost of living is relatively high or low. The Government assumes that in large cities and in industrial districts the Government employees are economically worse situated than in medium-sized and small towns or in rural districts where the prices of food and necessaries are much lower and where many officials have additional incomes from the keeping of vegetable gardens and live stock. For this reason the new regulation grants an additional 20 per cent to the above rates to officials living in localities where the cost of living is relatively high. In such localities the amounts of the bonuses for married officials are therefore 720, 840, 960, and 1,080 marks (\$171.36, \$199.92, \$228.48, and \$257.04), respectively. In Prussia about 35 per cent of the Government employees will receive these increased bonuses. It is, however, to be feared that this differentiation will cause new dissatisfaction because the Government and the interested officials are not always of the same opinion in determining the localities in which the cost of living is to be considered relatively high or low.

Retired Government employees were also very dissatisfied with their pensions. Their pensions, of course, are essentially smaller than the salaries of employees in active service. Hitherto retired employees were granted cost-of-living bonuses and war subsidies only if they were in great need, and in such a case they received only 30 per cent of the amount of the subsidies and bonuses granted to active employees of equal rank. The new regulations provide that pensioned employees shall, as a rule, receive 50 per cent of the amount of war subsidies and cost-of-living bonuses granted to employees in active service, and that in special cases even the full amount of these subsidies and bonuses may be paid to them. The new regulations further provide that if the pensioned employee has earnings by reason of his having obtained employment under the national auxiliary service law these earnings up to 1,000 marks (\$238) shall not be considered in determining whether the pensioned employee is in need of a bonus or not.

The new regulation of the bonuses and war subsidies doubtless is an improvement over former salary conditions, but it is by no means satisfactory. In discussions which have taken place in the Reichstag between representatives of all parties of the Government, the Government has been blandly told that even the new rates of the bonuses and subsidies are not sufficient to offset the steadily increasing cost of living. The Reichstag demanded higher subsidies, but the Imperial Government and the representatives of the Federal Government resisted this demand with the greatest energy. The representative of the imperial treasury always pointed out that the financial condition of the imperial treasury did not permit any increase of the war subsidies. As the Reichstag continued to insist on its demands in this respect, these demands finally were sidetracked through the action of Prussia, the largest Federal State, which definitely regulated the subsidies of employees while the Reichstag was still considering the matter. It has always been a favorite trick of the Prussian Government not to give the Reichstag any opportunity to regulate problems relating to Government employees. For the present the Reichstag has contented itself with passing in its Main Committee in the name of all parties a resolution stating that the present rates of the subsidies of Government employees seemed insufficient. This action of course does not give any comfort to the employees.

It is also very deplorable that the subsidies for auxiliary (substitute) employees have not yet been regulated anew. The number of auxiliary employees is very large. In the imperial post-office department, for instance, it is larger than the number of statutory employees. Many of these auxiliary forces have been employed in imperial and State establishments since the outbreak of the War and in many instances perform the same services as statutory employees. The bonuses granted to them to offset the increased cost of living are very small. When the last lump-sum bonus was granted to statutory employees the auxiliary employees were not included. The payment of monthly cost-of-living bonuses to auxiliary employees is frequently being effected in a very arbitrary manner. The condition of the auxiliary employees is actually pitiable and an improvement is urgently needed. All criticism in this respect is answered by authorities with the quotation of the fact that salaries have been increased. To be sure salaries have been increased here and there, but the present salaries nevertheless are much lower than those paid by private establishments for the same kind of services. It will be one of the tasks of the Reichstag at the approaching discussion of the budget to demand emphatically that the bonuses and subsidies of auxiliary employees be correlated to those of statutory employees.

SUSPENSION OF REGULATIONS FOR THE PROTECTION OF LABOR IN GERMANY DURING THE WAR.¹

During the present War the German factory inspection service has discontinued the publication of its regular annual reports on the activities of the factory inspectors with respect to their control of the enforcement of protective labor legislation. The discontinuance of the publication of these reports has frequently been criticized in the Reichstag and in State legislatures. In order partly to remedy this lack of public information the Prussian Ministry of the Interior recently has published a few statistical compilations as to the employment of juvenile and female workers in Prussia during 1915 and

¹ Internationale Korrespondenz. Berlin, Apr. 5 and May 30, 1918.

1916, and on the supervisory activities of the Prussian factory inspectors during 1917, a brief digest of which is given here.

The German industrial code (*Gewerbeordnung*) contains several important provisions restricting the free exploitation of workers. A few of these are: In establishments employing 10 or more workers children under 14 years of age may not be employed; juvenile workers under 16 years of age may not be employed for more than 10 hours per day and their employment at night work is prohibited entirely; female workers likewise may not be employed for more than 10 hours per day and their employment at night work is prohibited even if they are over 16 years of age. At the beginning of the War all these provisions of the industrial code were practically suspended, for it was decreed that exemption from their observation might be granted for individual establishments and districts.

Since the issuance of this decree numerous industries and establishments have obtained exemptions of this kind in an unwarranted manner. A subsequent decree of the imperial chancellor has somewhat restricted the granting of such exemptions but nevertheless complaints of workers in this respect are still so frequent that a recent resolution of the Social-Democratic Party in the Reichstag has demanded full restoration of the effectiveness of the above protective regulations of the industrial code. The same demand has repeatedly been made in the budget committee of the Reichstag.

Until lately exact data as to the extent in which exemptions from the above protective regulations had been granted were not available but the following compilation, recently published by the Prussian Ministry of the Interior, gives some information as to the number of establishments and juvenile and female workers for which permits for night and overtime work were issued.

NUMBER OF EXCEPTIONAL PERMITS ISSUED IN PRUSSIA TO INDUSTRIAL ESTABLISHMENTS FOR OVERTIME AND NIGHT WORK OF JUVENILE AND FEMALE WORKERS AND NUMBER OF WORKERS AFFECTED, 1915 AND 1916.

Permits for—	1915	1916
Overtime work of juvenile workers:		
Number of establishments	793	657
Number of juvenile workers affected	24,618	26,898
Night work of juvenile workers:		
Number of establishments	863	1,226
Number of juvenile workers affected	21,474	38,125
Overtime work of female workers over 16 years of age:		
Number of establishments	2,615	1,444
Number of female workers affected	149,620	97,117
Night work of female workers over 16 years of age:		
Number of establishments	1,762	3,197
Number of female workers affected	118,172	252,055

Night work is more endurable in those establishments that have introduced the three-shift system of 8 hours per shift, but the number of these establishments is relatively small. Of establish-

ments having been granted permits for night work of juvenile workers only 49 had a three-shift system in 1915, and only 179 in 1916, while of establishments which received permits for night work of female workers only 282 had a three-shift system in 1915, and 703 in 1916.

Most of the exemptions were granted to establishments engaged in the production of war supplies and it is to be regretted that the majority of these establishments still work with 12-hour shifts.

In commenting on the above statistics as to permits for overtime and night work of juvenile and female workers, the *Internationale Korrespondenz* says that in the interest of the physical development of the German youth and in order to protect the female workers from further injurious influences the restoration of protective labor regulations to full effectiveness is an absolute necessity.

The second report issued by the Prussian Ministry of the Interior deals with the supervisory activities in 1917 of the Prussian factory inspection service. According to this report the number of inspections of industrial establishments decreased from 177,432 in 1913 to 129,464 in 1917, i. e., by about 48,000 in round numbers. The number of night inspections decreased from 2,903 to 1,020 and that of inspections on Sundays and holidays from 4,938 to 1,660. This decrease in the number of inspections is chiefly due to a large decrease in the personnel of the inspection service, about 40 per cent of the factory inspectors being in military service. A noteworthy fact established by the report is that the number of repeated inspections of the same establishments has increased considerably. Factory inspectors took part in 22,312 investigations of industrial accidents, or in about 8,000 less than in 1913.

The number of establishments employing at least 10 workers was 172,268 in 1917 as against 175,436 in 1913. This small decrease may be explained by the fact that during the War a considerable number of establishments have been consolidated. The number of actually employed adult male workers decreased from 2,662,152 to 1,956,202, while that of adult female workers increased from 687,734 to 1,240,593. The number of juvenile workers between 14 and 16 years of age increased from 280,148 to 327,904 and that of child workers under 14 years of age from 3,584 to 6,012. The number of the inspected establishments formed 28 per cent of all existing establishments, and the number of the workers of both sexes employed in the inspected establishments represents about 82 per cent of all male and female workers employed in establishments subject to inspection.

The report shows a noteworthy increase of contraventions against protective regulations for female workers. Contraventions against provisions regulating the hours of labor (i. e., the number of workers employed in violation of these provisions) had increased from 2,869

to 6,108. Contraventions against the regulations relating to the noon rest had increased from 3,733 to 9,292. The number of establishments, however, in which such contraventions had been established, had decreased somewhat. The number of contraventions against protective regulations for juvenile workers was nearly the same in 1917 as in 1913. The number of establishments in which such contraventions had been detected was 1,754 and the number of convictions only 120. This small number of convictions leads to the conclusion that the authorities are rather too mild against contraveners of these protective regulations. According to the report Sunday work has decreased considerably.

The above statistical data on the enforcement of protective labor legislation do not give a very gratifying picture and they fully justify the demand made by the committee on means for the increase of the population for the discharge of factory inspectors from military service, a demand which has also had the support of the Reichstag.

LABOR OUTLOOK IN AUSTRIA AFTER THE WAR.

On the subject of capital and labor after the War the *Arbeiter-Zeitung*, the official organ of the German social democracy and of the socialistic trade-unions in Austria, prints the following editorial:¹

Powerful armies are still struggling in bloody battles in the West. So far, nobody can foretell how near or how remote peace is. Behind the lines, however, many hands are already at work in preparing for the resumption of peaceful activities after the conclusion of the War. Here we find the engineers of an ordnance factory preparing the transformation of its shops for the construction of locomotives, there we see technical experts drawing up plans to adapt a gun factory for the production of automobiles. An entire system of organizations subject to the General Commission on Reconstruction in the Ministry of Commerce is carefully considering how measures for the importation of raw materials, for a sufficient merchant marine, and funds to pay for the raw materials can be taken in anticipation of the time when the seas will be free again. The 'three large employers' associations of Austria have combined so as to be able during the coming peace times to take part with increased power in the economic strife. Thus everywhere employers are busily engaged in preparing for peace, whether the latter be near or remote. The working classes should also begin to look ahead and to see to it that the new tasks of peace times do not find them unprepared. In this respect it is necessary in the first place that we obtain an idea as to what form the relations of capital and labor will assume after the War.

In many branches of industry, production has been discontinued entirely during the War or been essentially restricted, as, for instance, in the building trades and the textile, glass, and pottery industries. The employers have not used their capital for the operation of their establishments. They have invested it largely in war bonds. Will all these employers, who have been leading idle lives for four years, resume operation of their establishments? Certainly not! Many of them will prefer to sell their factories. As prices are high and machinery will be hard to obtain, they will be able

¹ *Arbeiter-Zeitung*: "Kapital und Arbeit nach dem Kriege." Vienna, Apr. 7, 1918.

to obtain a much higher price for their establishments than that at which they have valued them on their books. Particularly the more conservative, more easy going, and less aggressive employers, will sell their establishments, invest the proceeds in Government bonds, and instead of being active will continue to live as idlers on their interest. Their factories, however, will fall into the hands of the financially strongest, sharpest, and most aggressive of their competitors. In this manner a selective process will take place among the ranks of the employers; the conservative and easy-going employers will disappear entirely and whole branches of industry will be concentrated in the hands of financially strong corporations managed by energetic men. The same process will also take place in the many branches of industry that to-day are active for war purposes. To-day shells are being turned where in peace times parts of machinery were produced; field kitchens are being built where cooking utensils were produced. As soon, however, as the large orders of the military administration cease, such industries must be readapted to peace-time production. This will require much hard work from which many an employer will shrink. He has made a profit of millions during the War, so why should he work hard? Particularly when he can now sell his factory at such a good price. Here also a concentration of these industries in a few strong hands will take place.

These facts indeed can be observed to-day. Never before have so many factories changed hands, so many individual enterprises been commuted into stock companies, and so many stock companies been combined into trusts, as during the War. Herr Skoda, for instance, on the one hand, and Herr Günther, on the other, have brought under their command a large part of the machinery industry. The working classes know what this signifies. After the War they will frequently find themselves in opposition to monster concerns employing thousands of workmen instead of, as before the War, to only medium-sized independent establishments employing a few hundred workmen. And they will find themselves fighting efficient and energetic, but also aggressive and unscrupulous enemies where before the War they merely had to do with a lot of elderly, good-natured, and jovial gentlemen.

Hand in hand with this process another development will take place. During the War manufacturers have sold their old stock at large profits without being able to accumulate new stock; they have worn out their machines without being able to obtain new ones in their place; they have made profits of millions without being able to invest this new capital in the enlargement of their plants. Thus large sums have accumulated in the safes of employers and have, for the most part, been invested in war bonds. When peace comes the employers will wish to employ this capital differently. They will want to replenish their stock of raw materials, to replace their wornout machines by new ones, and to enlarge their establishments. For all these purposes they need money. But they have no money, only war bonds. What is to be done? Shall they sell their war bonds? This will not be feasible, for if all employers would offer for sale the enormous quantity of war bonds owned by them the price of these bonds would drop too much. Consequently many employers will be compelled to borrow from the banks the money needed by them and to deposit their war bonds with these banks as collateral for the loans. Even before the War, industry was borrowing from the banks in a rapidly increasing measure and thereby has become more and more dependent upon the latter; the fact that during the War industrial capital has temporarily been invested in war bonds will accelerate this process. The domination of industry by the powers of high finance will be much more complete after the War than it was before. In the case of labor disputes the working classes will no longer face individual enterprises, dependent on their own economic strength, but enterprises governed by the boards of directors of the large banks, welded together by these banks and, in case of a serious fight, backed by the billions at the disposal of these large banks.

In addition there is finally to be considered a third process of development. During the War the State has combined many branches of industry into so-called war unions. For instance, all the establishments of the cotton, wool, and sugar industries, etc., were combined into such war unions. The war union of the cotton industry will probably continue to exist long after the termination of the War, for there will be a shortage of cotton for a long time to come and the organization consequently will be needed to distribute the available cotton supplies among the mills. Such an organization also will be able to obtain more easily than the individual mills the credit abroad without which the importation of cotton would not be feasible. The individual employers themselves will not be willing to dissolve the war union, and why should they, for the war union is a cartel organized by the State itself, which guarantees them large profits. And the State, of course, will not want to dissolve the war union but to obtain a profit from it. As the State by virtue of its authority guarantees large profits to the members of a cartel, it can also assure a part of these profits to itself, and in its present financial distress the State surely will need this part of the cartel profits. In a number of industries the working classes, therefore, will find that they will have to deal with compulsory cartels organized by the State, i. e., with a completely and uniformly organized body of employers. And, as these cartels are being organized by the bureaucracy and as the State will probably reserve to itself part of the cartels' profits these cartels will have the closest connections with the Government and exercise considerable influence upon it. Capital will in a larger measure than ever be able to count upon support by the State.

To sum up, it becomes plain that the War has enormously strengthened the power of capital. The fight against capital will be incomparably harder than before the War. Labor will no longer have to deal with individual employers, but with a closely organized combine of employers, closely allied with the large banks, and supported by the State. Each strike in an individual establishment will be combated by a lockout in numerous other establishments. In wage disputes the employers' organizations will command immense capital and have the influence of the large banks and of the State on their side. Therefore, it is clear that only very strong trade-unions will be able to hold their own in such disputes; but it also is clear that the gigantic trade-union disputes that will arise from these conditions will inevitably grow into political class disputes the result of which will be decided by the political strength of the working classes. The entire future of the working classes depends upon their ability to strengthen their trade-union and political organization in such a manner that it will be able to cope with its new tasks. The main work of organization in this respect can, of course, only be done after the War, when the strongest fighters for the interests of labor return from the front. But the formation of strong cadres should be begun with to-day, so that they may be ready for the times of the great mobilization of the forces of the proletariat.

PROVISIONS FOR DISABLED SOLDIERS AND SAILORS.

WORK OF LOCAL WAR PENSIONS COMMITTEES IN GREAT BRITAIN.

The Ministry of Pensions supervises the granting of pensions and allowances to members of the British military and naval forces and is responsible for the retraining of disabled soldiers and sailors. The actual contact with the man, however, is made through the local war pensions committee in the man's own district. These committees are directly responsible to the ministry.

Roughly speaking, there is a local committee for each county, or borough, or town of 20,000 or more inhabitants. There may be as many subcommittees as are necessary to divide the area covered into manageable districts. The London County Committee, for example, has 47 local subcommittees in its jurisdiction. The war pensions committees theoretically are arranged for by the ministry, in conjunction with the local authorities. As a matter of fact, most of them were already in existence before even the war pensions statutory committee¹ was appointed in November, 1915. They developed at the outbreak of the War, when the people of England proved themselves equal to the emergency by taking the situation into their own hands and doing locally what the Government could not do on the instant, having no machinery developed. Each committee, generally speaking, consists of twenty or more members: five nominated by the local authorities, two by local employers, two by workpeople, two by the Soldiers' and Sailors' Families' Association, two by the Soldiers' and Sailors' Help Association, four local experts on special subjects, or persons of unusual influence, by local residents; two disabled discharged soldiers or sailors, and one widow of a soldier or sailor of this War. These numbers may vary, since the local authorities have discretionary powers in the matter. All, however, are voluntary workers, except that representatives of labor may put in a claim for necessary traveling expenses incurred, and for loss of time, at 1s. (24.3 cents) per hour. Each committee designates a secretary, who may be salaried, although an appreciable number serve voluntarily. Clerical hire is provided also, if necessary. Once each year the committee submits an estimate of expenses to the county council, which passes upon the bill, and pays one-third of the amount allowed, the remaining two-thirds being paid by the Ministry of Pensions. The committee divides itself into subcommittees on disablement, appeals, and grants or finances, as it deems advisable.

¹ This committee, appointed by the Naval and Military War Pensions, etc., Act, 1915 (5 and 6 Geo. V, ch. 83), was absorbed by the Ministry of Pensions.

The duties of these local committees are so varied and so complex that there is difficulty in enumerating and defining them. The committees are virtually the local guardians of discharged soldiers and sailors and their families, and no complication or difficulty is too trivial or too serious to be submitted to them. Unfailing and well-nigh infinite tact, discretion, and sympathy must characterize the individual members, who must guide and befriend pensioners and at the same time wisely administer the local affairs of the Ministry of Pensions. All questions of pensions and alternative pensions, allowances, extra grants, treatment, training, and employment come under their discretionary powers, subject necessarily to final decision by the special grants committee, the appeals tribunal, or other branch of the ministry. But a first survey of each case is made by the local committee, who, being in contact with the individuals and cognizant of many of the more intimate facts, have grave responsibility in presenting cases to the ministry.

The home conditions of soldiers' families must be a matter of knowledge to members of the committee. They give advice upon many subjects, and they accept advice from numerous local bodies, such as trade advisory boards, and joint subcommittees representing the Ministries of Labor and Pensions. Properly to understand and appreciate what all this means, a visit should be made to the headquarters of a local committee during its working hours—6 to 12 per day—in order that the interviews may be heard and individual judgment passed upon the unselfish work of these volunteers, which has, in the majority of cases, extended over the period of the War.

A great difficulty in the beginning arose from the fact that the training of the men and women who came forward to assist had been along the lines of charitable work, experience in no way analogous to that which is required of these committees. This was a stumbling block for many of the best intentioned, but time has to a great extent removed that difficulty and has developed the capabilities of the helpers to meet their responsibilities. As the War has progressed and the age limits have been increased, the men workers more and more have been required for Army service, leaving greater responsibility upon the women. To get substitute workers has become daily more difficult, as demands increase for the substitution of women for men in every field of labor and administration. It is felt by those most interested that more paid workers must be found to continue the local committees' duties for many years after the cessation of actual hostilities.

It must not be concluded that no criticism has developed of certain local conditions, or that each committee has proved equal to all emergencies; but gradually errors of judgment have been rectified and mistakes have been eliminated. In order to keep the ministry

in the closest possible touch with each committee a new branch of the ministry has been organized, called the inspectorate, or outdoor staff. This branch became operative on May 15, with a chief inspector at the ministry headquarters, a deputy for Ireland, and with the countries of the United Kingdom divided into 18 districts, each with a superintending inspector and a staff of assistants. By means of this inspection, the ministry believes that a closer cooperation of administrative detail will be obtained, a greater insight into individual cases be possible, and any impending friction be avoided. The superintending inspectors are all men of long familiarity with the exigencies and complexities of the local committee's daily experience.

To illustrate, a disabled soldier finds his work too much of a strain and must have a new job, or his old wound has become troublesome and he must have treatment, or perhaps some new symptom has developed or some disability has increased, and he feels he is entitled to have his case presented to the appeals tribunal for an increase of pension. The committee member whom he interviews must know every one of 100 regulations governing these cases, must satisfy himself as to the facts, and must know the procedure to be followed. A record is made of any step taken. This record is filed with other papers or records belonging to the man's case, from his discharge down. Each committee has similar files for every discharged man or soldier's dependent living in its area, and is in fact fully acquainted with the individuals and their home and industrial experience.

If a man is ordered to have treatment, he is given a card, which must be dated and signed by the doctor at each visit to the hospital, and submitted to the committee each week before the man can draw his allowance. His insurance must be looked after, the welfare of his wife and family watched over, and a multitude of other details attended to.

In the case of a wife of a soldier, she must call weekly for her separation allowance and that for her children, and for an extra grant, if any has been made. She can get advice on any subject, and the committee member must not fail to make a complete record of every detail on the case paper.

In small districts the members regularly visit the homes and leave the allowances, but in the larger areas it is impossible to do that, so certain days in each week are designated for men and for women to visit committee headquarters. The committee makes every effort to cooperate with the soldiers' federations, and is usually able to convince the federations that no ex-soldier's rights will be disregarded. In case of an appeal, the committee invariably gives the man the benefit of any doubt as to whether his increased disability is attributable to, or was aggravated by, his war service, before sending the case to the ministry for the action of the appeals tri-

bunal, feeling that the error, if any is made, should be to the advantage of the ex-soldier. The general impression of committee members seems to be that the average of fraudulent cases presented is perhaps less than might be expected and is certainly no greater than in all undertakings of life.

All the treatment and training schemes of the ministry are under the watchful eyes of the local committees, whose members must be in close touch with every discharged man in their areas and see that each one gets whatever treatment his condition requires, under the guidance of and in cooperation with the treatment branch of the ministry. But, above all, it is the duty of the committee to guide, direct, cajole, or otherwise induce every disabled man whose condition suggests or warrants the belief that he would be benefited physically, materially, or otherwise by a systematic course of training to take such a course in some trade or profession. In many cases members of these committees are also hospital visitors, who may have already started the attempt to assist the man in the matter of training. More often, however, the man comes under the local committee's care after having been discharged from one of the ministry's hospitals, where he may have made or accepted a decision as to his future course in life. It is the duty of the committee to assist him in every way possible—to provide opportunities for training under the guidance of, and in close cooperation with, the training branch of the ministry, with due regard to local conditions, and later, in cooperation with the advisory committee or the employment exchanges of the Ministry of Labor, to aid in finding him employment.

Technical schools, colleges, trade-unions, and trade societies—in fact, all known agencies have been enlisted by the ministry in its general training scheme. By means of training allowances and hostels provided by the ministry and by philanthropic persons every precaution is taken to insure the living expenses of the man during his course. While it is the desire of everyone concerned to provide for the early placement of a man in permanent, lucrative employment, effort is always made to induce him to take as long a course as is necessary to equip him to withstand the competition which will come from the demobilization of an army of able-bodied men. The ministry has always thoughtful consideration for the disabled man's future, and a disabled man who has gone straight into whatever occupation presented itself at the time of his discharge may avail himself at any time of the training offered by the Government. The ministry reserves to itself final judgment as to a man's fitness for the training he elects to take, and the likelihood of its proving the means of establishing him permanently in a trade or profession. The Ministry of Pension's policy is opposed to exercising compulsion in any form in this matter of training, and recognizes the natural

desire of a disabled man to get home as quickly as possible in order to be in the midst of friends and home surroundings, without much thought for his future. But no opportunity is overlooked of presenting to the man's mind the condition in which he will find himself later on if he is unskilled and untrained and only fit for manual labor. This is the reason for the provision that a man may present himself for training at any time.

At present there are well-established opportunities for training in nearly 50 trades, and it is safe to say that almost any disabled man may have along trade lines can be gratified by his local committee, all the conditions being favorable. At the end of May about 7,000 men had completed training or were taking training of some kind in institutions, schools, or workshops under the guidance of the ministry, while nearly as many more disabled men had been trained or were being trained, with the ministry's cooperation, by institutions for the care of the blind (St. Dunstan's, chiefly), Lord Roberts's Workshops, or by the Ministry of Munitions.

The following statistics, reprinted from the weekly report of the Ministry of Pensions for the week ending June 7, 1918, indicate the number of men who had completed or were receiving training on June 5, 1918, and the occupations chosen:

CASES IN RECEIPT OF ALLOWANCES DURING TRAINING IN TECHNICAL INSTITUTES AND FACTORIES OR WORKSHOPS IN WEEK ENDING JUNE 5, 1918.

Item.	In technical institutions.	In factories or workshops.	Total.
Number reported under training on May 29, 1918.....	2,973	1,370	4,343
Number reported during week as admitted for training.....	159	95	254
Number reported during week as discharged from training.....	95	25	120
Total under training on June 5, 1918.....	3,037	1,440	4,477
Total who have been or who are under training up to June 5, 1918.....	4,665	2,534	17,199

¹ Not including 730 men in training under the Ministry of Munitions.

OCCUPATIONS OF MEN REPORTED AS HAVING BEGUN AND AS HAVING FINISHED TRAINING IN WEEK ENDING JUNE 5, 1918.

Occupation or industry.	Number—		Occupation or industry.	Number—	
	Admitted to training.	Who have terminated training.		Admitted to training.	Who have terminated training.
Agriculture.....	18	7	Gold, silver, and jewelry.....	2	1
Arts and crafts.....	1	3	Leather.....	6	5
Boots and shoes.....	37	15	Massage.....	1	1
Building.....	1	2	Mining.....	1	1
Cane and willow.....	2	1	Miscellaneous.....	9	3
Chemistry.....	1	1	Sanitation inspector.....	1	1
Cinema.....	7	4	Surgical appliances.....	1	1
Commercial.....	48	23	Tailoring.....	8	3
Dental mechanics.....	9	1	Textile.....	1	1
Diamond work.....	7	2	Training blind and deaf.....	18	3
Engineering:			Toy making.....	1	1
Electrical.....	29	21	Transport.....	7	10
Mechanical.....	29	14			
Furniture.....	9	1	Total.....	254	120
Glass.....	1	1			

The numbers shown in the table may seem small, but it must be remembered there is no compulsion whatever exercised by the Ministry of Pensions in this matter of training; besides, the ministry has existed only about 16 months, and its present excellent arrangements have only recently been generally understood. At present nearly 1,000 men are starting training each month, and it is hoped and expected that this number will be greatly increased in the near future.

The local war pensions committees are the medium whereby the Ministry of Pensions comes into personal contact with each disabled man, and each soldier's or sailor's widow, child, or other dependent. Each pensioner must feel that, by dealing with residents of his own district, his case will be better understood and the details of it presented to the ministry in their best light. As already suggested, the United Kingdom is divided into joint disablement committee areas, made up of from 6 to 40 local committees. Each joint area has a superintending inspector and corps of assistants. The joint committees further deliberate upon the more complicated cases of each local committee before presenting them to the ministry. There are at present about 350 local committees in operation.

TRADES FOR DISABLED MEN IN GREAT BRITAIN.

The Employment Department of the British Ministry of Labor in cooperation with the Ministry of Pensions is publishing a series of reports upon openings in industry suitable for disabled sailors and soldiers.¹ The following is a complete list of these reports issued to date:

- No. 1. Attendants at electricity substations. 1917. 6 pp.
- No. 2. Employment in picture theaters. 1917. 6 pp.
- No. 3. Tailoring (retail). June, 1917. 7 pp.
- No. 4. Agricultural motor-tractor work in England and Wales. 1917. 6 pp.
- No. 5. The furniture trade. 1917. 18 pp.
- No. 6. Leather goods trade. 1917. 8 pp.
- No. 7. Hand-sewn boot and shoe making and boot and shoe repairing. 1917. 12 pp.
- No. 8. Gold, silver, jewelry, watch, and clock jobbing. 1917. 9 pp.
- No. 9. Dental mechanics. 1917. 8 pp.
- No. 10. Aircraft manufacture. Fusilage making and erection of engine on fusilage. 1917. 12 pp.
- No. 11. Wholesale tailoring. 1918. 10 pp.
- No. 12. Boot and shoe manufacture. 1918. 10 pp.
- No. 13. The basket-making trade, including the manufacture of cane and wicker furniture. 1918. 8 pp.
- No. 14. The building trade. 1918. 18 pp.
- No. 15. Engineering. 1918. 12 pp.
- No. 16. Printing and kindred trades. 1918. 16 pp.

¹ The first four of these reports were reprinted in part in the MONTHLY REVIEW for December, 1917, p. 67-78.

In connection with these reports supplementary instructions have been issued for the following trades: Cinema trade; furniture trade; hand-sewn boot and shoe making and boot and shoe repairing trades; leather goods trade; aircraft manufacture; dental mechanics; gold, silver, and jewelry and watch and clock jobbing trades; tailoring trade (retail bespoke); tailoring (Part II) wholesale; building trade. It is interesting to note that these supplementary instructions allow both employers' associations and trade-unions a voice in the selection of candidates for training and as to the suitability of the training offered and of the jobs offered after training. The section permitting this arrangement reads as follows:

Where any training has been approved by the Minister of Pensions in the above-mentioned trades, and where the Minister of Labor, on the advice of the Trade Advisory Committee, has set up for the area in which the training is to be given a local technical advisory committee, consisting of an equal number of representatives of associations of employers and workpeople, respectively; then provided such committee is recognized by the Minister of Pensions, after consultation with the Minister of Labor, as representative of the trade in the area, the local war pensions committee, by whom the training has been arranged, shall consult the local technical advisory committee with regard to the following points:

(a) The selection of candidates for training, having regard to their suitability for the trade.

(b) The suitability of the training offered in the technical school or similar institutes.

(c) The suitability of any requests made by employers to the local war pensions committee in whose area the training is being provided, for the supply of men for employment after training, with special reference to the prospects of permanent employment and the rate of wages offered at the termination of the training.

(d) The suitability of the training offered in factories and workshops, with special reference to the prospects of permanent employment and the rate of wages offered at the termination of the training.

(e) Any other technical points arising out of the training of disabled men for this trade.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

The retail prices of food as a whole in the United States, according to reports received from retail dealers by the Bureau of Labor Statistics, show an increase of 7 per cent in the one-year period, June 15, 1917, to June 15, 1918, and an increase of 2 per cent in the one-month period, May 15, 1918, to June 15, 1918.

Average prices are shown for 28 articles of food. For the one-year period, six articles show a decline in price ranging from 2 per cent, each, for cheese and sugar to 55 per cent for potatoes. Eleven articles show an increase of 21 per cent or over, the greatest increase being 35 per cent for round steak. Coffee shows no change in price in the year. Flour declined 17 per cent while bread increased 2 per cent.

In the month May 15 to June 15, 1918, 16 articles show an increase in price. The greatest increase, 32 per cent, is shown in potatoes which is due to new potatoes being more generally on the market. The other 15 articles show comparatively small increases ranging from less than one-half of 1 per cent for eggs, butter, and coffee to 7 per cent for both sirloin and round steak. Nine articles show a decline in price in June as compared with May. Bread, raisins, and sugar remained at the same price.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE JUNE 15, 1918, COMPARED WITH JUNE 15, 1917, AND MAY 15, 1918.

Article.	Unit.	Average money price.			Per cent of increase (+) or decrease (-) June 15, 1918, compared with—	
		June 15, 1917.	May 15, 1918.	June 15, 1918.	June 15, 1917.	May 15, 1918.
Sirloin steak.....	Pound.....	\$0.328	\$0.400	\$0.426	+30	+7
Round steak.....	do.....	.301	.380	.406	+35	+7
Rib roast.....	do.....	.261	.318	.335	+28	+5
Chuck roast.....	do.....	.222	.278	.295	+33	+6
Plate beef.....	do.....	.170	.219	.227	+34	+4
Pork chops.....	do.....	.309	.367	.372	+20	+1
Bacon.....	do.....	.425	.505	.515	+21	+2
Ham.....	do.....	.391	.456	.465	+19	+2
Lard.....	do.....	.280	.329	.326	+16	-1
Lamb.....	do.....	.304	.368	.374	+23	+2
Hens.....	do.....	.288	.379	.376	+31	-1
Salmon, canned.....	do.....	.263	.296	.295	+12	(1)
Eggs.....	Dozen.....	.409	.424	.425	+4	(2)
Butter.....	Pound.....	.469	.510	.511	+9	(2)
Cheese.....	do.....	.338	.334	.332	-2	-1
Milk.....	Quart.....	.106	.132	.130	+23	-2
Bread.....	16-oz. loaf ³.....	.085	.087	.087	+2	(4)
Flour.....	Pound.....	.081	.066	.067	-17	+2
Corn meal.....	do.....	.055	.070	.067	+22	+4
Rice.....	do.....	.108	.123	.125	+16	+2
Potatoes.....	do.....	.064	.022	.029	-55	+32
Onions.....	do.....	.070	.056	.048	-31	-14
Beans, navy.....	do.....	.195	.178	.175	-10	-1
Prunes.....	do.....	.157	.165	.166	+6	+1
Raisins, seeded.....	do.....	.146	.151	.151	+3	(4)
Sugar.....	do.....	.093	.091	.091	-2	(4)
Coffee.....	do.....	.302	.301	.302	(4)	(2)
Tea.....	do.....	.568	.638	.618	+9	-3
All articles combined.....					+7	+2

¹ Decrease of less than one-half of 1 per cent.² Increase of less than one-half of 1 per cent.³ 16 ounces, weight of dough.⁴ No change in price.

Food as a whole shows an increase of 66 per cent in June, 1918, as compared with June, 1913. The price in June, 1917, was 55 per cent higher than in June, 1913, while in June, 1914, and in June, 1915, the price of all articles combined was only 2 per cent higher than in the corresponding month of 1913. In the year, June, 1913, to June, 1914, the greatest increase, 28 per cent, was in potatoes. The striking changes in June, 1915, as compared with June, 1913, were advances of 30 per cent in sugar, 27 per cent in flour, 16 per cent in bread, 11 per cent in corn meal, and a decrease of 6 per cent in potatoes; in June, 1916, compared with June, 1913, the increases of 64 per cent in sugar and 61 per cent in potatoes; in June, 1917, compared with June, 1913, increases of 256 per cent in potatoes, 145 per cent in flour, 96 per cent in corn meal, 77 per cent in lard, and 70 per cent in bread. Flour, potatoes, and sugar show greater increases in price in 1917 over the price in 1913 than they did in 1918.

Comparing June 15, 1918, with June 15, 1913, every article shows an increase of 44 per cent or over. The least advance, or 44 per cent, is shown in milk. Butter increased 45 per cent and eggs, 55 per cent.

Eight articles increased in price ranging from 55 per cent to 74 per cent. The increases for three articles ranged from 78 to 87 per cent. Corn meal, lard, and flour more than doubled in price in the five-year period.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE
JUNE 15 OF EACH SPECIFIED YEAR COMPARED WITH JUNE 15, 1913.

Article.	Unit.	Average money price June 15.						Per cent of increase (+) or decrease (-) June 15 of each specified year compared with June 15, 1913.				
		1913	1914	1915	1916	1917	1918	1914	1915	1916	1917	1918
Sirloin steak.....	Pound.....	\$0.258	\$0.260	\$0.260	\$0.286	\$0.328	\$0.426	+ 1	+ 1	+11	+ 27	+ 65
Round steak.....	do.....	.223	.234	.232	.257	.301	.406	+ 5	+ 4	+15	+ 35	+ 82
Rib roast.....	do.....	.200	.204	.202	.224	.261	.335	+ 2	+ 1	+12	+ 31	+ 68
Chuck roast.....	do.....	.....	.171	.164	.180	.222	.295	.....	.....	.....	.....	.....
Plate beef.....	do.....	.....	.125	.123	.134	.170	.227	.....	.....	.....	.....	.....
Pork chops.....	do.....	.209	.218	.207	.232	.309	.372	+ 4	.....	+11	+ 48	+ 78
Bacon.....	do.....	.276	.273	.273	.292	.425	.515	- 1	- 1	+ 6	+ 54	+ 87
Ham.....	do.....	.271	.266	.258	.292	.391	.465	- 2	- 5	+ 8	+ 44	+ 72
Lard.....	do.....	.158	.154	.151	.172	.280	.326	- 3	- 4	+ 9	+ 77	+106
Lamb.....	do.....	.194	.200	.218	.239	.304	.374	+ 3	+12	+23	+ 57	+ 93
Hens.....	do.....	.219	.221	.210	.244	.288	.376	+ 1	- 4	+11	+ 32	+ 72
Salmon, canned.....	do.....	.....	.....	.200	.202	.263	.295	.....	.....	.....	.....	.....
Eggs.....	Dozen.....	.275	.278	.265	.295	.409	.425	+ 1	- 4	+ 7	+ 49	+ 55
Butter.....	Pound.....	.353	.339	.349	.367	.469	.511	- 4	- 1	+ 4	+ 33	+ 45
Cheese.....	do.....	.....	.....	.233	.245	.338	.332	.....	.....	.....	.....	.....
Milk.....	Quart.....	.090	.090	.089	.090	.106	.130	(²)	- 1	(²)	.....	.....
Bread.....	16-oz. loaf ¹	.050	.051	.058	.057	.085	.087	+ 2	+16	+14	+ 70	+ 74
Flour.....	Pound.....	.033	.032	.042	.038	.081	.087	- 3	+27	+15	+145	+103
Corn meal.....	do.....	.028	.030	.....	.031	.055	.067	+ 7	+11	+11	+ 96	+139
Rice.....	do.....	.....	.....	.091	.091	.108	.125	.....	.....	.....	.....	.....
Potatoes.....	do.....	.018	.023	.017	.029	.064	.029	+28	- 6	+61	+256	+ 61
Onions.....	do.....	.....	.....	.040	.054	.070	.048	.....	.....	.....	.....	.....
Beans, navy.....	do.....	.....	.....	.076	.096	.195	.175	.....	.....	.....	.....	.....
Prunes.....	do.....	.....	.....	.133	.130	.157	.166	.....	.....	.....	.....	.....
Raisins, seeded.....	do.....	.....	.....	.126	.127	.146	.151	.....	.....	.....	.....	.....
Sugar.....	do.....	.053	.051	.069	.087	.093	.091	- 4	+30	+64	+ 75	+ 72
Coffee.....	do.....	.....	.....	.302	.302	.302	.302	.....	.....	.....	.....	.....
Tea.....	do.....	.....	.....	.551	.551	.568	.618	.....	.....	.....	.....	.....
All articles combined.....	.....	.....	.....	.....	.....	.....	.....	+ 2	+ 2	+13	+ 55	+ 66

¹ 16 ounces, weight of dough.

² No change in price.

In 1913 prices were secured by the Bureau of Labor Statistics for 17 articles of food. Relative figures for the articles for which weights were secured and for all articles combined are shown in the following table for May and June, 1918, and for June, 1913, 1914, 1915, 1916, and 1917. The relative figures are based on the average price for the year 1913.

RELATIVE RETAIL PRICES OF FOOD ON MAY 15 AND JUNE 15, 1918, AND ON JUNE 15, 1913, 1914, 1915, 1916, AND 1917.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1913.]

Article	Unit.	1918		June 15—				
		May 15.	June 15.	1913	1914	1915	1916	1917
Sirloin steak.....	Pound.....	157	168	102	103	103	113	129
Round steak.....	do.....	170	182	101	106	105	117	135
Rib roast.....	do.....	161	169	102	103	103	113	132
Pork chops.....	do.....	175	177	99	103	98	110	148
Bacon.....	do.....	187	191	101	100	99	107	158
Ham.....	do.....	170	173	102	100	97	119	145
Lard.....	do.....	208	206	100	97	95	130	177
Hens.....	do.....	178	177	103	103	98	114	136
Eggs.....	Dozen.....	123	123	81	82	78	87	119
Butter.....	Pound.....	133	133	92	88	90	95	123
Milk.....	Quart.....	148	146	99	100	98	99	119
Bread.....	16-oz. loaf ¹	174	174	100	110	126	124	170
Flour.....	Pound.....	200	203	101	99	130	117	246
Corn meal.....	do.....	233	223	98	103	109	108	182
Potatoes.....	do.....	129	171	104	132	99	167	366
Sugar.....	do.....	165	165	97	93	126	158	170
All articles combined.....		158	162	98	99	100	112	152

¹ 16 ounces, weight of dough.

Below is given a summary table of average and relative prices for the United States for each month, January to June, 1918.

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD, JAN. 15, 1918, TO JUNE 15, 1918, INCLUSIVE.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1913.]

Article.	Unit.	Average money price.						Relative price.					
		Jan. 15, 1918.	Feb. 15, 1918.	Mar. 15, 1918.	Apr. 15, 1918.	May 15, 1918.	June 15, 1918.	Jan. 15, 1918.	Feb. 15, 1918.	Mar. 15, 1918.	Apr. 15, 1918.	May 15, 1918.	June 15, 1918.
Sirloin steak.....	Pound.....	\$0.327	\$0.334	\$0.338	\$0.366	\$0.400	\$0.426	129	131	133	144	157	168
Round steak.....	do.....	.306	.314	.318	.345	.380	.406	137	141	143	155	170	182
Rib roast.....	do.....	.258	.263	.268	.293	.318	.335	130	133	135	148	161	169
Chuck roast.....	do.....	.221	.227	.232	.255	.278	.295	.....	.....	.....	.....	.....	.....
Plate beef.....	do.....	.172	.177	.182	.199	.219	.227	.....	.....	.....	.....	.....	.....
Pork chops.....	do.....	.343	.336	.339	.356	.367	.372	163	160	161	170	175	177
Bacon.....	do.....	.486	.484	.488	.495	.505	.515	180	179	181	183	187	191
Ham.....	do.....	.436	.438	.441	.446	.456	.465	162	163	164	166	170	173
Lard.....	do.....	.329	.330	.332	.331	.329	.326	208	209	210	209	208	206
Lamb.....	do.....	.308	.314	.317	.353	.368	.374	.....	.....	.....	.....	.....	.....
Hens.....	do.....	.329	.362	.....	.....	.379	.376	154	170	.....	.....	178	177
Salmon, canned.....	do.....	.292	.291	.295	.295	.296	.296	.....	.....	.....	.....	.....	.....
Eggs.....	Dozen.....	.674	.611	.443	.425	.424	.425	195	177	128	123	123	123
Butter.....	Pound.....	.567	.579	.552	.507	.510	.511	148	151	144	132	133	133
Cheese.....	do.....	.345	.349	.351	.341	.334	.332	.....	.....	.....	.....	.....	.....
Milk.....	Quart.....	.134	.134	.134	.132	.132	.130	151	151	151	148	148	146
Bread.....	16-oz. loaf ¹	.083	.083	.084	.086	.087	.087	166	166	168	172	174	174
Flour.....	Pound.....	.066	.066	.066	.066	.066	.067	200	200	200	200	200	203
Corn meal.....	do.....	.070	.070	.072	.071	.070	.067	233	233	240	237	233	223
Rice.....	do.....	.117	.118	.120	.121	.123	.125	.....	.....	.....	.....	.....	.....
Potatoes.....	do.....	.032	.032	.025	.022	.022	.029	188	188	147	129	129	171
Onions.....	do.....	.050	.049	.040	.033	.056	.048	.....	.....	.....	.....	.....	.....
Beans, navy.....	do.....	.185	.181	.181	.180	.178	.175	.....	.....	.....	.....	.....	.....
Prunes.....	do.....	.164	.165	.165	.166	.165	.166	.....	.....	.....	.....	.....	.....
Raisins, seeded.....	do.....	.150	.150	.151	.151	.151	.151	.....	.....	.....	.....	.....	.....
Sugar.....	do.....	.095	.106	.092	.091	.091	.091	173	193	167	165	165	165
Coffee.....	do.....	.304	.304	.304	.301	.301	.302	.....	.....	.....	.....	.....	.....
Tea.....	do.....	.623	.609	.615	.639	.638	.618	.....	.....	.....	.....	.....	.....
All articles combined.....								160	161	154	154	158	162

¹ 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JUNE 15, 1913, 1914, 1917, MAY 15, 1918, AND JUNE 15, 1918—Continued.

Article.	Unit.	Buffalo, N. Y.					Chicago, Ill.				
		June 15.			May 15, 1918.	June 15, 1918.	June 15.			May 15, 1918.	June 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound....	\$0.228	\$0.232	\$0.317	\$0.373	\$0.409	\$0.234	\$0.245	\$0.303	\$0.356	\$0.379
Round steak.....	do.....	.198	.212	.298	.351	.386	.203	.218	.269	.320	.349
Rib roast.....	do.....	.175	.178	.250	.299	.326	.200	.202	.251	.301	.319
Chuck roast.....	do.....	.....	.162	.228	.273	.291	.....	.162	.220	.265	.279
Plate beef.....	do.....	.....	.123	.173	.211	.233	.....	.121	.168	.203	.214
Pork chops.....	do.....	.203	.202	.322	.380	.406	.188	.190	.279	.331	.360
Bacon, sliced.....	do.....	.233	.220	.416	.475	.490	.320	.312	.436	.533	.550
Ham, sliced.....	do.....	.263	.263	.418	.463	.469	.324	.319	.416	.483	.488
Lard.....	do.....	.142	.137	.264	.312	.307	.150	.150	.263	.322	.316
Lamb.....	do.....	.187	.178	.271	.339	.339	.202	.212	.299	.350	.356
Hens.....	do.....	.217	.212	.296	.392	.387	.203	.193	.276	.339	.343
Salmon, canned.....	do.....	.....	.....	.243	.281	.280	.....	.....	.270	.300	.303
Eggs.....	Dozen.....	.258	.269	.415	.434	.434	.243	.244	.396	.396	.394
Butter.....	Pound.....	.329	.320	.452	.506	.496	.327	.308	.434	.475	.468
Cheese.....	do.....	.....	.....	.324	.318	.315	.....	.....	.336	.343	.342
Milk.....	Quart.....	.080	.080	.110	.130	.130	.080	.100	.100	.119	.119
Bread.....	16-oz. loaf ¹	.049	.044	.084	.089	.088	.054	.054	.101	.089	.089
Flour.....	Pound.....	.030	.030	.079	.062	.062	.028	.029	.078	.064	.063
Corn meal.....	do.....	.026	.027	.056	.072	.069	.029	.028	.057	.071	.068
Rice.....	do.....	.....	.....	.105	.123	.123	.....	.....	.102	.126	.122
Potatoes.....	do.....	.018	.018	.074	.021	.025	.012	.020	.067	.018	.029
Onions.....	do.....	.....	.....	.072	.048	.055	.....	.....	.053	.037	.040
Beans, navy.....	do.....	.....	.....	.200	.179	.174	.....	.....	.203	.177	.175
Prunes.....	do.....	.....	.....	.150	.172	.173	.....	.....	.156	.167	.169
Raisins, seeded.....	do.....	.....	.....	.130	.140	.141	.....	.....	.145	.149	.148
Sugar.....	do.....	.052	.050	.092	.090	.089	.049	.050	.088	.087	.087
Coffee.....	do.....	.....	.....	.293	.299	.293	.....	.....	.287	.291	.282
Tea.....	do.....	.....	.....	.504	.576	.593	.....	.....	.560	.584	.581
		Cleveland, Ohio.					Denver, Colo.				
Sirloin steak.....	do.....	\$0.252	\$0.270	\$0.315	\$0.375	\$0.416	\$0.242	\$0.235	\$0.311	\$0.395	\$0.412
Round steak.....	do.....	.220	.236	.296	.357	.390	.221	.220	.294	.382	.387
Rib roast.....	do.....	.200	.197	.249	.301	.321	.178	.179	.245	.303	.307
Chuck roast.....	do.....	.....	.173	.232	.271	.294	.....	.165	.219	.282	.283
Plate beef.....	do.....	.....	.119	.169	.210	.223	.....	.097	.151	.200	.201
Pork chops.....	do.....	.207	.214	.325	.354	.373	.203	.204	.308	.355	.361
Bacon, sliced.....	do.....	.286	.269	.431	.489	.490	.280	.271	.450	.532	.548
Ham, sliced.....	do.....	.360	.350	.436	.470	.491	.300	.300	.445	.505	.511
Lard.....	do.....	.165	.161	.286	.319	.319	.163	.154	.292	.346	.342
Lamb.....	do.....	.192	.203	.311	.349	.365	.178	.191	.306	.361	.353
Hens.....	do.....	.223	.209	.303	.398	.364	.212	.210	.283	.373	.358
Salmon, canned.....	do.....	.....	.....	.251	.285	.289	.....	.....	.248	.283	.289
Eggs.....	Dozen.....	.276	.271	.425	.424	.431	.250	.257	.407	.416	.424
Butter.....	Pound.....	.362	.366	.481	.508	.508	.343	.297	.433	.470	.478
Cheese.....	do.....	.....	.....	.328	.334	.323	.....	.....	.349	.352	.352
Milk.....	Quart.....	.080	.080	.100	.130	.130	.084	.084	.098	.120	.112
Bread.....	16-oz. loaf ¹	.049	.050	.090	.088	.088	.048	.048	.091	.099	.100
Flour.....	Pound.....	.032	.032	.082	.067	.070	.026	.026	.066	.056	.056
Corn meal.....	do.....	.027	.029	.055	.071	.068	.024	.025	.048	.060	.073
Rice.....	do.....	.....	.....	.104	.121	.108	.....	.....	.114	.131	.135
Potatoes.....	do.....	.015	.021	.073	.020	.033	.014	.021	.060	.018	.026
Onions.....	do.....	.....	.....	.059	.046	.048	.....	.....	.068	.029	.046
Beans, navy.....	do.....	.....	.....	.209	.173	.156	.....	.....	.200	.171	.171
Prunes.....	do.....	.....	.....	.158	.168	.161	.....	.....	.172	.168	.168
Raisins, seeded.....	do.....	.....	.....	.134	.142	.147	.....	.....	.143	.146	.157
Sugar.....	do.....	.050	.052	.090	.090	.090	.054	.049	.092	.092	.095
Coffee.....	do.....278	.299	.294311	.304	.304
Tea.....	do.....499	.596	.616574	.606	.602

¹ 16 ounces, weight of dough.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JUNE 15, 1913, 1914, 1917, MAY 15, 1918, AND JUNE 15, 1918—Continued.

Article.	Unit.	Detroit, Mich.					Los Angeles, Cal.				
		June 15.			May 15, 1918.	June 15, 1918.	June 15.			May 15, 1918.	June 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.242	\$0.253	\$0.292	\$0.377	\$0.394	\$0.240	\$0.233	\$0.277	\$0.336	\$0.331
Round steak.....	do.....	.194	.216	.281	.348	.365	.208	.211	.245	.316	.311
Rib roast.....	do.....	.194	.201	.265	.318	.315	.200	.199	.232	.282	.285
Chuck roast.....	do.....	.....	.163	.218	.270	.277	.....	.167	.190	.243	.237
Plate beef.....	do.....	.....	.119	.166	.211	.218	.....	.136	.147	.205	.197
Pork chops.....	do.....	.192	.201	.290	.348	.368	.254	.253	.319	.413	.417
Bacon, sliced.....	do.....	.240	.235	.416	.485	.493	.338	.335	.461	.584	.585
Ham, sliced.....	do.....	.255	.280	.400	.462	.482	.358	.350	.465	.555	.564
Lard.....	do.....	.161	.157	.280	.332	.324	.180	.169	.274	.339	.332
Lamb.....	do.....	.174	.196	.334	.382	.369	.192	.191	.258	.335	.314
Hens.....	do.....	.216	.213	.293	.386	.376	.266	.273	.268	.383	.362
Salmon, canned.....	do.....	.....	.....	.245	.297	.304	.....	.....	.343	.377	.374
Eggs.....	Dozen.....	.260	.260	.427	.429	.445	.305	.306	.382	.444	.447
Butter.....	Pound.....	.340	.323	.455	.499	.492	.345	.341	.432	.452	.481
Cheese.....	do.....	.....	.....	.313	.318	.320	.....	.....	.331	.338	.336
Milk.....	Quart.....	.080	.080	.110	.120	.120	.100	.100	.100	.130	.130
Bread.....	16-oz. loaf ¹.....	.050	.050	.085	.085	.084	.053	.053	.081	.078	.079
Flour.....	Pound.....	.031	.031	.081	.068	.071	.036	.036	.079	.066	.069
Corn meal.....	do.....	.028	.030	.060	.072	.072	.032	.035	.061	.074	.073
Rice.....	do.....	.....	.....	.109	.126	.127	.....	.....	.103	.125	.128
Potatoes.....	do.....	.015	.022	.075	.016	.027	.016	.017	.038	.020	.022
Onions.....	do.....	.....	.....	.070	.047	.048	.....	.....	.040	.028	.032
Beans, navy.....	do.....	.....	.....	.200	.168	.161	.....	.....	.187	.170	.167
Prunes.....	do.....	.....	.....	.156	.169	.174	.....	.....	.163	.160	.163
Raisins, seeded.....	do.....	.....	.....	.139	.145	.153	.....	.....	.137	.147	.139
Sugar.....	do.....	.050	.050	.089	.089	.089	.053	.052	.083	.086	.087
Coffee.....	do.....	.....	.....	.290	.304	.301	.....	.....	.305	.303	.304
Tea.....	do.....	.....	.....	.500	.585	.565	.....	.....	.550	.616	.611
		Milwaukee, Wis.					New Orleans, La.				
Sirloin steak.....	do.....	\$0.225	\$0.237	\$0.301	\$0.356	\$0.382	\$0.225	\$0.235	\$0.286	\$0.341	\$0.347
Round steak.....	do.....	.210	.218	.288	.340	.376	.195	.204	.243	.309	.314
Rib roast.....	do.....	.185	.185	.250	.291	.315	.194	.204	.238	.303	.307
Chuck roast.....	do.....	.....	.163	.226	.269	.290	.....	.150	.208	.241	.244
Plate beef.....	do.....	.....	.118	.164	.208	.221	.....	.124	.154	.189	.194
Pork chops.....	do.....	.195	.197	.289	.335	.356	.219	.243	.307	.375	.381
Bacon, sliced.....	do.....	.273	.275	.420	.496	.502	.297	.300	.479	.508	.538
Ham, sliced.....	do.....	.278	.277	.406	.456	.462	.268	.275	.383	.434	.454
Lard.....	do.....	.154	.158	.281	.326	.322	.149	.144	.267	.326	.325
Lamb.....	do.....	.195	.190	.318	.376	.379	.213	.214	.297	.386	.392
Hens.....	do.....	.215	.203	.288	.351	.343	.200	.219	.287	.357	.377
Salmon, canned.....	do.....	.....	.....	.244	.279	.288	.....	.....	.269	.311	.317
Eggs.....	Dozen.....	.222	.228	.358	.384	.380	.256	.259	.384	.371	.359
Butter.....	Pound.....	.328	.322	.443	.479	.474	.350	.339	.476	.509	.505
Cheese.....	do.....	.....	.....	.318	.298	.300	.....	.....	.331	.319	.318
Milk.....	Quart.....	.070	.070	.080	.100	.103	.100	.097	.112	.143	.142
Bread.....	16-oz. loaf ¹.....	.050	.053	.101	.080	.080	.046	.043	.081	.078	.079
Flour.....	Pound.....	.031	.031	.082	.066	.065	.039	.037	.085	.072	.073
Corn meal.....	do.....	.030	.033	.068	.073	.070	.026	.028	.052	.062	.061
Rice.....	do.....	.....	.....	.112	.126	.132	.....	.....	.098	.112	.114
Potatoes.....	do.....	.011	.024	.071	.017	.020	.020	.020	.062	.020	.018
Onions.....	do.....	.....	.....	.060	.037	.045	.....	.....	.059	.024	.031
Beans, navy.....	do.....	.....	.....	.210	.181	.152	.....	.....	.178	.163	.166
Prunes.....	do.....	.....	.....	.160	.160	.156	.....	.....	.161	.162	.162
Raisins, seeded.....	do.....	.....	.....	.145	.149	.150	.....	.....	.148	.153	.157
Sugar.....	do.....	.053	.049	.089	.089	.088	.051	.049	.093	.088	.088
Coffee.....	do.....	.....	.....	.275	.265	.270	.....	.....	.266	.246	.249
Tea.....	do.....	.....	.....	.571	.584	.612	.....	.....	.600	.583	.601

¹ 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JUNE 15, 1913, 1914, 1917, MAY 15 1918, AND JUNE 15, 1918—Continued.

Article.	Unit.	New York, N. Y.					Philadelphia, Pa.				
		June 15.			May 15, 1918.	June 15, 1918.	June 15.			May 15, 1918.	June 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.263	\$0.268	\$0.323	\$0.400	\$0.441	\$0.300	\$0.309	\$0.365	\$0.474	\$0.539
Round steak.....	do.....	.253	.258	.325	.406	.452	.254	.272	.337	.443	.498
Rib roast.....	do.....	.225	.220	.276	.351	.382	.223	.222	.278	.360	.397
Chuck roast.....	do.....	.....	.169	.218	.278	.313	.....	.182	.240	.319	.346
Plate beef.....	do.....	.....	.149	.202	.257	.285	.....	.119	.164	.217	.236
Pork chops.....	do.....	.215	.224	.322	.382	.397	.208	.227	.342	.400	.410
Bacon, sliced.....	do.....	.260	.258	.420	.470	.484	.271	.264	.413	.500	.511
Ham, sliced.....	do.....	2.208	2.198	2.285	2.338	2.341	.316	.301	.450	.517	.522
Lard.....	do.....	.161	.157	.273	.326	.326	.153	.148	.279	.329	.327
Lamb.....	do.....	.172	.172	.267	.336	.336	.214	.213	.311	.351	.395
Hens.....	do.....	.221	.218	.298	.397	.403	.232	.238	.308	.424	.429
Salmon, canned.....	do.....	.....	.....	.300	.339	.352	.....	.....	.240	.266	.269
Eggs.....	Dozen.....	.328	.346	.447	.480	.503	.277	.288	.433	.444	.464
Butter.....	Pound.....	.345	.328	.456	.518	.508	.391	.381	.528	.580	.567
Cheese.....	do.....	.....	.....	.338	.338	.339	.....	.....	.361	.370	.372
Milk.....	Quart.....	.090	.090	.109	.130	.128	.080	.080	.090	.120	.120
Bread.....	16-oz. loaf ¹	.055	.054	.088	.086	.086	.043	.043	.079	.083	.083
Flour.....	Pound.....	.033	.032	.083	.071	.072	.031	.031	.080	.071	.071
Corn meal.....	do.....	.035	.035	.067	.080	.080	.027	.028	.049	.072	.068
Rice.....	do.....	.....	.....	.105	.121	.122	.....	.....	.108	.130	.131
Potatoes.....	do.....	.028	.029	.079	.028	.038	.025	.031	.053	.026	.037
Onions.....	do.....	.....	.....	.059	.054	.056	.....	.....	.063	.053	.049
Beans, navy.....	do.....	.....	.....	.190	.179	.178	.....	.....	.183	.177	.177
Prunes.....	do.....	.....	.....	.159	.171	.173	.....	.....	.153	.168	.168
Raisins, seeded.....	do.....	.....	.....	.168	.148	.151	.....	.....	.134	.143	.143
Sugar.....	do.....	.048	.045	.084	.088	.088	.049	.045	.083	.087	.087
Coffee.....	do.....	.....	.....	.263	.273	.279	.....	.....	.274	.272	.273
Tea.....	do.....	.....	.....	.509	.546	.555	.....	.....	.566	.591	.603
		Pittsburgh, Pa.					St. Louis, Mo.				
Sirloin steak.....	do.....	\$0.272	\$0.280	\$0.349	\$0.445	\$0.494	\$0.237	\$0.273	\$0.315	\$0.370	\$0.384
Round steak.....	do.....	.237	.247	.322	.413	.464	.222	.243	.305	.361	.379
Rib roast.....	do.....	.220	.217	.270	.340	.376	.183	.200	.259	.303	.312
Chuck roast.....	do.....	.....	.170	.243	.307	.337	.....	.159	.217	.255	.265
Plate beef.....	do.....	.....	.128	.172	.227	.248	.....	.141	.161	.209	.212
Pork chops.....	do.....	.220	.233	.324	.385	.397	.182	.198	.291	.332	.352
Bacon, sliced.....	do.....	.290	.298	.438	.515	.529	.260	.260	.413	.479	.492
Ham, sliced.....	do.....	.296	.314	.436	.500	.515	.273	.275	.412	.470	.477
Lard.....	do.....	.155	.154	.280	.334	.325	.136	.125	.253	.293	.292
Lamb.....	do.....	.214	.220	.358	.395	.396	.180	.193	.316	.379	.379
Hens.....	do.....	.248	.272	.347	.433	.428	.185	.190	.256	.330	.338
Salmon, canned.....	do.....	.....	.....	.273	.312	.311	.....	.....	.263	.294	.297
Eggs.....	Dozen.....	.255	.263	.425	.437	.437	.214	.219	.370	.373	.374
Butter.....	Pound.....	.367	.349	.475	.524	.520	.344	.318	.473	.510	.503
Cheese.....	do.....	.....	.....	.331	.339	.336	.....	.....	.334	.311	.316
Milk.....	Quart.....	.086	.092	.103	.125	.125	.080	.080	.100	.120	.120
Bread.....	16-oz. loaf ¹	.048	.047	.092	.085	.085	.049	.050	.092	.087	.087
Flour.....	Pound.....	.032	.032	.079	.067	.067	.030	.029	.076	.062	.062
Corn meal.....	do.....	.027	.030	.061	.075	.069	.022	.025	.050	.064	.057
Rice.....	do.....	.....	.....	.104	.124	.124	.....	.....	.099	.122	.126
Potatoes.....	do.....	.017	.028	.071	.023	.038	.017	.017	.063	.020	.038
Onions.....	do.....	.....	.....	.066	.054	.050	.....	.....	.067	.044	.043
Beans, navy.....	do.....	.....	.....	.197	.184	.174	.....	.....	.204	.177	.172
Prunes.....	do.....	.....	.....	.154	.174	.177	.....	.....	.166	.166	.168
Raisins, seeded.....	do.....	.....	.....	.144	.141	.143	.....	.....	.170	.167	.163
Sugar.....	do.....	.055	.055	.094	.096	.095	.050	.049	.090	.086	.088
Coffee.....	do.....	.....	.....	.285	.294	.298	.....	.....	.280	.276	.275
Tea.....	do.....	.....	.....	.657	.727	.738	.....	.....	.565	.676	.688

¹ 16-ounces, weight of dough.² Whole.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JUNE 15, 1913, 1914, 1917, MAY 15, 1918, AND JUNE 15, 1918—Concluded.

Article.	Unit.	San Francisco, Cal.					Seattle, Wash.				
		June 15.			May 15.	June 15.	June 15.			May 15.	June 15.
		1913	1914	1917	1918	1918	1913	1914	1917	1918	1918
Sirloin steak.....	Pound.....	\$0.207	\$0.207	\$0.225	\$0.331	\$0.327	\$0.238	\$0.240	\$0.270	\$0.391	\$0.380
Round steak.....	do.....	.190	.197	.219	.329	.320	.215	.210	.258	.375	.362
Rib roast.....	do.....	.210	.220	.216	.305	.301	.200	.186	.233	.320	.313
Chuck roast.....	do.....	.156	.155	.242	.234	.....	.150	.195	.281	.266	.266
Plate beef.....	do.....	.147	.148	.224	.215	.....	.126	.161	.232	.225	.225
Pork chops.....	do.....	.237	.247	.306	.398	.398	.242	.246	.326	.400	.400
Bacon, sliced.....	do.....	.339	.339	.441	.565	.560	.317	.317	.461	.548	.554
Ham, sliced.....	do.....	.300	.330	.418	.504	.494	.308	.300	.407	.495	.497
Lard.....	do.....	.184	.168	.285	.340	.339	.177	.163	.279	.333	.331
Lamb.....	do.....	.167	.180	.238	.336	.321	.208	.200	.274	.389	.376
Hens.....	do.....	.234	.240	.261	.406	.379	.243	.238	.263	.396	.397
Salmon, canned.....	do.....	.....	.....	.230	.258	.263	.....	.....	.248	.290	.287
Eggs.....	Doz.....	.296	.307	.371	.430	.456	.285	.285	.404	.452	.496
Butter.....	Pound.....	.346	.314	.436	.471	.507	.359	.322	.439	.494	.496
Cheese.....	do.....	.....	.....	.301	.313	.314	.....	.....	.311	.310	.313
Milk.....	Quart.....	.100	.100	.100	.121	.121	.085	.086	.113	.125	.125
Bread.....	16-oz. loaf ¹.....	.052	.052	.083	.084	.084	.049	.053	.090	.092	.095
Flour.....	Pound.....	.034	.035	.073	.066	.072	.030	.029	.069	.058	.061
Corn meal.....	do.....	.034	.035	.065	.076	.075	.031	.032	.063	.077	.075
Rice.....	do.....	.....	.....	.102	.124	.131	.....	.....	.103	.129	.137
Potatoes.....	do.....	.021	.025	.042	.022	.026	.011	.018	.052	.017	.018
Onions.....	do.....	.....	.....	.036	.023	.023	.....	.....	.047	.033	.033
Beans, navy.....	do.....	.....	.....	.192	.162	.159	.....	.....	.203	.176	.176
Prunes.....	do.....	.....	.....	.145	.137	.143	.....	.....	.139	.152	.154
Raisins, seeded.....	do.....	.....	.....	.138	.136	.133	.....	.....	.144	.142	.142
Sugar.....	do.....	.053	.051	.081	.086	.088	.059	.054	.092	.091	.091
Coffee.....	do.....	.....	.....	.300	.302	.306	.....	.....	.308	.322	.317
Tea.....	do.....	.....	.....	.519	.535	.533	.....	.....	.508	.583	.580

Article.	Unit.	Washington, D. C.				
		June 15.			May 15.	June 15.
		1913	1914	1917	1918	1918
Sirloin steak.....	Pound.....	\$0.275	\$0.288	\$0.344	\$0.492	\$0.511
Round steak.....	do.....	.239	.250	.333	.466	.492
Rib roast.....	do.....	.216	.217	.277	.365	.397
Chuck roast.....	do.....	.....	.176	.243	.315	.349
Plate beef.....	do.....	.....	.134	.188	.231	.242
Pork chops.....	do.....	.209	.223	.355	.439	.464
Bacon, sliced.....	do.....	.268	.253	.410	.503	.512
Ham, sliced.....	do.....	.300	.290	.426	.494	.504
Lard.....	do.....	.148	.141	.272	.340	.338
Lamb.....	do.....	.209	.224	.331	.433	.443
Hens.....	do.....	.226	.239	.310	.420	.434
Salmon, canned.....	do.....	.....	.....	.247	.290	.286
Eggs.....	Doz.....	.256	.254	.429	.433	.443
Butter.....	Pound.....	.374	.359	.492	.552	.550
Cheese.....	do.....	.....	.....	.345	.355	.334
Milk.....	Quart.....	.080	.080	.100	.140	.140
Bread.....	16-oz. loaf ¹.....	.051	.050	.092	.081	.087
Flour.....	Pound.....	.038	.038	.084	.067	.065
Corn meal.....	do.....	.025	.025	.051	.063	.061
Rice.....	do.....	.....	.....	.108	.127	.125
Potatoes.....	do.....	.019	.028	.073	.023	.033
Onions.....	do.....	.....	.....	.062	.056	.055
Beans, navy.....	do.....	.....	.....	.204	.192	.188
Prunes.....	do.....	.....	.....	.166	.176	.176
Raisins, seeded.....	do.....	.....	.....	.138	.153	.153
Sugar.....	do.....	.049	.049	.087	.089	.089
Coffee.....	do.....	.....	.....	.286	.296	.295
Tea.....	do.....	.....	.....	.578	.671	.699

¹ 16 ounces, weight of dough.

The next table gives average retail prices of food in May and June, 1918, for 30 smaller cities. For Portland, Me., prices are shown for June, 1918, only, as this is the first month prices have been secured from this city.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 30 CITIES FOR MAY 15, 1918, AND JUNE 15, 1918, AND FOR 1 CITY FOR JUNE 15, 1918.

[The prices shown below are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.	
		May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918
Sirloin steak.....	Pound.....	\$0.473	\$0.545	\$0.395	\$0.397	\$0.367	\$0.377	\$0.349	\$0.381	\$0.380	\$0.403
Round steak.....	do.....	.439	.519	.355	.365	.379	.377	.343	.371	.365	.384
Rib roast.....	do.....	.363	.412	.320	.334	.318	.325	.297	.308	.301	.311
Chuck roast.....	do.....	.304	.361	.276	.288	.255	.262	.252	.261	.270	.283
Plate beef.....	do.....	.206	.226	.209	.216	.218	.215	.215	.226	.223	.234
Pork chops.....	do.....	.371	.393	.377	.385	.392	.393	.351	.359	.336	.351
Bacon, sliced.....	do.....	.517	.529	.538	.584	.518	.538	.468	.479	.487	.491
Ham, sliced.....	do.....	.511	.527	.493	.475	.470	.483	.469	.485	.482	.497
Lard.....	do.....	.324	.318	.337	.328	.336	.333	.303	.298	.321	.310
Lamb.....	do.....	.358	.388	.369	.371	.421	.398	.357	.367	.400	.380
Hens.....	do.....	.405	.422	.399	.373	.420	.422	.369	.376	.347	.353
Salmon, canned.....	do.....	.355	.347	.383	.377	.280	.287	.262	.263	.267	.264
Eggs.....	Dozen.....	.509	.555	.454	.505	.460	.405	.366	.381	.375	.363
Butter.....	Pound.....	.501	.506	.514	.503	.534	.528	.501	.500	.499	.506
Cheese.....	do.....	.338	.338	.350	.350	.327	.319	.335	.332	.316	.326
Milk.....	Quart.....	.130	.130	.150	.150	.185	.190	.130	.130	.123	.123
Bread.....	16-oz. loaf ¹	.090	.090	.106	.106	.090	.090	.083	.084	.089	.090
Flour.....	Pound.....	.070	.070	.067	.068	.073	.070	.067	.065	.067	.067
Corn meal.....	do.....	.083	.081	.081	.085	.064	.057	.062	.059	.066	.063
Rice.....	do.....	.127	.128	.133	.135	.093	.098	.121	.122	.123	.124
Potatoes.....	do.....	.025	.034	.015	.015	.031	.027	.024	.020	.019	.032
Onions.....	do.....	.053	.059	.030	.039	.061	.056	.045	.042	.061	.067
Beans, navy.....	do.....	.176	.175	.175	.174	.194	.194	.158	.154	.175	.172
Prunes.....	do.....	.174	.177	.182	.170	.167	.168	.154	.156	.163	.161
Raisins, seeded.....	do.....	.152	.150	.148	.155	.150	.150	.155	.155	.153	.151
Sugar.....	do.....	.095	.094	.100	.100	.090	.088	.090	.089	.089	.089
Coffee.....	do.....	.315	.315	.425	.428	.274	.282	.271	.267	.289	.288
Tea.....	do.....	.644	.638	.782	.707	.640	.646	.657	.679	.800	.810

Article.	Unit.	Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.	
		May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918
Sirloin steak.....	do.....	\$0.384	\$0.386	\$0.559	\$0.590	\$0.354	\$0.357	\$0.373	\$0.388	\$0.388	\$0.399
Round steak.....	do.....	.367	.372	.477	.514	.344	.358	.369	.381	.378	.380
Rib roast.....	do.....	.317	.332	.366	.382	.302	.297	.278	.294	.301	.311
Chuck roast.....	do.....	.283	.294	.309	.336	.257	.255	.261	.279	.255	.266
Plate beef.....	do.....	.240	.241	.....	.....	.223	.221	.215	.225	.215	.204
Pork chops.....	do.....	.347	.354	.358	.390	.352	.357	.349	.356	.369	.371
Bacon, sliced.....	do.....	.583	.571	.475	.472	.531	.536	.502	.509	.520	.520
Ham, sliced.....	do.....	.473	.438	.455	.454	.459	.466	.479	.484	.455	.463
Lard.....	do.....	.340	.326	.318	.311	.319	.319	.319	.315	.331	.330
Lamb.....	do.....	.367	.420	.360	.377	.371	.357	.250	.....	.357	.363
Hens.....	do.....	.296	.295	.391	.402	.360	.326	.314	.303	.346	.354
Salmon, canned.....	do.....	.281	.287	.286	.284	.295	.298	.249	.245	.292	.275
Eggs.....	Dozen.....	.378	.383	.554	.571	.396	.398	.268	.356	.445	.453
Butter.....	Pound.....	.497	.497	.499	.504	.500	.500	.492	.494	.548	.548
Cheese.....	do.....	.335	.329	.337	.332	.332	.326	.353	.354	.344	.336
Milk.....	Quart.....	.159	.153	.130	.130	.153	.154	.110	.110	.153	.153
Bread.....	16-oz. loaf ¹	.089	.089	.090	.090	.080	.081	.089	.088	.088	.085
Flour.....	Pound.....	.069	.066	.073	.072	(2)	.078	.065	.067	.070	.070
Corn meal.....	do.....	.068	.062	.091	.085	.065	.063	.065	.061	.063	.062
Rice.....	do.....	.116	.118	.120	.121	.113	.119	.122	.124	.109	.117
Potatoes.....	do.....	.026	.031	.024	.034	.026	.022	.019	.034	.029	.034
Onions.....	do.....	.040	.044	.056	.055	.041	.041	.066	.057	.053	.055
Beans, navy.....	do.....	.182	.179	.179	.179	.168	.168	.179	.176	.196	.195
Prunes.....	do.....	.173	.164	.167	.163	.152	.160	.173	.171	.174	.170
Raisins, seeded.....	do.....	.158	.148	.155	.154	.164	.167	.171	.174	.174	.171
Sugar.....	do.....	.095	.095	.098	.098	.092	.093	.091	.093	.090	.090
Coffee.....	do.....	.342	.324	.322	.319	.277	.287	.295	.291	.321	.321
Tea.....	do.....	.844	.801	.547	.557	.604	.611	.765	.774	.729	.741

¹ 16 ounces, weight of dough.

² No flour sold in Houston, Tex., on May 15, 1918.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 30 CITIES FOR MAY 15, 1918, AND JUNE 15, 1918, AND FOR 1 CITY FOR JUNE 15, 1918—Continued.

Article.	Unit.	Kansas City, Mo.		Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918
Sirloin steak.....	Pound....	\$0.370	\$0.379	\$0.402	\$0.416	\$0.367	\$0.386	\$0.529	\$0.570	\$0.407	\$0.408
Round steak.....	do.....	.357	.362	.377	.389	.367	.379	.484	.524	.378	.388
Rib roast.....	do.....	.282	.288	.338	.355	.296	.304	.327	.372	.323	.322
Chuck roast.....	do.....	.253	.258	.285	.302	.263	.273	.294	.346	.285	.295
Plate beef.....	do.....	.208	.216	.247	.260	.234	.230	.....	.....	.252	.255
Pork chops.....	do.....	.330	.351	.356	.362	.358	.359	.352	.386	.354	.354
Bacon, sliced.....	do.....	.525	.531	.553	.569	.513	.518	.475	.481	.514	.521
Ham, sliced.....	do.....	.485	.498	.500	.507	.466	.475	.436	.451	.458	.463
Lard.....	do.....	.346	.343	.337	.331	.317	.308	.340	.330	.321	.319
Lamb.....	do.....	.313	.313	.400	.400	.388	.388	.355	.399	.400	.387
Hens.....	do.....	.306	.310	.348	.343	.325	.321	.404	.427	.330	.320
Salmon, canned.....	do.....	.297	.297	.297	.309	.254	.258	.302	.301	.298	.292
Eggs.....	Dozen.....	.382	.394	.369	.357	.365	.351	.506	.534	.380	.362
Butter.....	Pound.....	.485	.484	.533	.527	.501	.503	.538	.536	.485	.513
Cheese.....	do.....	.351	.341	.359	.358	.342	.326	.337	.339	.319	.319
Milk.....	Quart.....	.123	.122	.150	.150	.128	.128	.140	.140	.150	.150
Bread.....	16-oz. loaf ¹	.089	.088	.094	.094	.088	.087	.077	.082	.092	.092
Flour.....	Pound.....	.067	.067	.067	.067	.067	.067	.069	.071	.067	.068
Corn meal.....	do.....	.069	.068	.067	.065	.063	.058	.078	.076	.059	.057
Rice.....	do.....	.120	.126	.121	.125	.121	.123	.123	.124	.114	.122
Potatoes.....	do.....	.023	.036	.025	.033	.023	.030	.026	.030	.021	.025
Onions.....	do.....	.047	.048	.060	.056	.044	.045	.048	.059	.040	.044
Beans, navy.....	do.....	.181	.183	.183	.188	.172	.170	.186	.182	.185	.189
Prunes.....	do.....	.150	.156	.168	.170	.166	.164	.173	.163	.163	.165
Raisins, seeded.....	do.....	.156	.148	.148	.149	.155	.151	.153	.155	.147	.157
Sugar.....	do.....	.095	.093	.095	.096	.090	.090	.097	.095	.091	.090
Coffee.....	do.....	.289	.291	.309	.318	.269	.267	.342	.336	.299	.298
Tea.....	do.....	.656	.671	.773	.779	.701	.693	.604	.604	.775	.760

Article.	Unit.	Mobile, Ala.		Minneapolis, Minn.		Newark, N. J.		New Haven, Conn.	
		May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918	May 15, 1918	June 15, 1918
Sirloin steak.....	Pound....	\$0.353	\$0.358	\$0.336	\$0.367	\$0.438	\$0.490	\$0.487	\$0.583
Round steak.....	do.....	.347	.350	.323	.346	.446	.489	.458	.538
Rib roast.....	do.....	.315	.317	.276	.306	.366	.389	.363	.418
Chuck roast.....	do.....	.269	.272	.256	.277	.315	.354	.328	.388
Plate beef.....	do.....	.242	.248	.196	.211	.234	.257	.....	.....
Pork chops.....	do.....	.390	.394	.318	.344	.402	.414	.353	.392
Bacon, sliced.....	do.....	.539	.533	.496	.493	.459	.481	.504	.534
Ham, sliced.....	do.....	.439	.440	.445	.443	.350	.361	.511	.585
Lard.....	do.....	.322	.322	.322	.321	.342	.336	.337	.333
Lamb.....	do.....	.364	.359	.324	.322	.386	.409	.368	.421
Hens.....	do.....	.410	.392	.332	.315	.394	.415	.419	.434
Salmon, canned.....	do.....	.270	.270	.347	.345	.345	.342	.336	.336
Eggs.....	Dozen.....	.413	.414	.377	.374	.483	.525	.538	.560
Butter.....	Pound.....	.538	.532	.468	.465	.548	.531	.528	.527
Cheese.....	do.....	.334	.327	.303	.299	.362	.356	.343	.342
Milk.....	Quart.....	.150	.150	.100	.100	.137	.150	.143	.143
Bread.....	16-oz. loaf ¹	.086	.096	.079	.079	.086	.085	.090	.090
Flour.....	Pound.....	.069	.071	.058	.059	.073	.072	.070	.079
Corn meal.....	do.....	.069	.068	.056	.055	.079	.081	.080	.080
Rice.....	do.....	.115	.116	.122	.123	.123	.125	.123	.123
Potatoes.....	do.....	.027	.020	.015	.020	.029	.036	.026	.032
Onions.....	do.....	.049	.051	.025	.050	.068	.064	.053	.073
Beans, navy.....	do.....	.183	.183	.169	.164	.179	.179	.185	.183
Prunes.....	do.....	.170	.172	.153	.156	.177	.174	.181	.178
Raisins, seeded.....	do.....	.178	.178	.143	.145	.152	.151	.153	.153
Sugar.....	do.....	.090	.090	.095	.094	.090	.090	.098	.098
Coffee.....	do.....	.270	.265	.307	.309	.307	.301	.337	.333
Tea.....	do.....	.615	.632	.504	.503	.571	.571	.629	.609

¹ 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 30 CITIES FOR
MAY 15, 1918, AND JUNE 15, 1918, AND FOR 1 CITY FOR JUNE 15, 1918—Continued.

Article.	Unit.	Norfolk, Va.		Omaha, Nebr.		Peoria, Ill.		Portland, Me.	
		May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.
Sirloin steak.....	Pound...	\$0.432	\$0.509	\$0.383	\$0.383	\$0.370	\$0.391	.....	\$0.602
Round steak.....	do.....	.394	.463	.374	.378	.363	.391	.....	.516
Rib roast.....	do.....	.350	.391	.294	.298	.275	.289	.....	.353
Chuck roast.....	do.....	.306	.344	.278	.281	.263	.281	.....	.314
Plate beef.....	do.....	.234	.260	.204	.205	.211	.234	.....	.....
Pork chops.....	do.....	.372	.392	.335	.342	.331	.344	.....	.401
Bacon, sliced.....	do.....	.498	.508	.515	.524	.523	.520	.....	.488
Ham, sliced.....	do.....	.389	.409	.479	.489	.482	.487	.....	.459
Lard.....	do.....	.341	.337	.342	.339	.335	.335	.....	.330
Lamb.....	do.....	.424	.404	.359	.342	.400	.425	.....	.373
Hens.....	do.....	.396	.423	.333	.315	.338	.332	.....	.417
Salmon, canned.....	do.....	.281	.281	.290	.291	.291	.289	.....	.281
Eggs.....	Dozen.....	.435	.447	.388	.367	.372	.368	.....	.502
Butter.....	Pound.....	.565	.571	.494	.481	.471	.473	.....	.546
Cheese.....	do.....	.346	.352	.318	.316	.328	.328	.....	.347
Milk.....	Quart.....	.180	.180	.125	.127	.104	.104	.....	.125
Bread.....	16-oz. loaf ¹	.088	.085	.089	.089	.089	.089	.....	.089
Flour.....	Pound.....	.069	.069	.063	.064	.070	.070	.....	.066
Corn meal.....	do.....	.063	.063	.061	.063	.062	.059	.....	.072
Rice.....	do.....	.136	.140	.119	.121	.124	.125	.....	.125
Potatoes.....	do.....	.028	.037	.020	.036	.020	.033	.....	.029
Onions.....	do.....	.050	.051	.035	.051	.063	.056	.....	.055
Beans, navy.....	do.....	.194	.187	.171	.172	.193	.190	.....	.180
Prunes.....	do.....	.187	.192	.168	.166	.169	.170	.....	.151
Raisins, seeded.....	do.....	.153	.148	.158	.158	.159	.158	.....	.142
Sugar.....	do.....	.088	.090	.090	.090	.091	.091	.....	.090
Coffee.....	do.....	.315	.323	.310	.309	.271	.267	.....	.302
Tea.....	do.....	.827	.797	.649	.649	.620	.627	.....	.603
		Portland, Oreg.		Providence, R. I.		Richmond, Va.		Rochester, N. Y.	
Sirloin steak.....	do.....	\$0.374	\$0.357	\$0.611	\$0.665	\$0.431	\$0.443	\$0.370	\$0.417
Round steak.....	do.....	.356	.339	.493	.553	.403	.415	.355	.390
Rib roast.....	do.....	.329	.309	.390	.423	.343	.365	.301	.336
Chuck roast.....	do.....	.279	.261	.358	.405	.306	.324	.293	.335
Plate beef.....	do.....	.227	.206	.....	.....	.255	.264	.218	.250
Pork chops.....	do.....	.393	.393	.383	.417	.381	.385	.364	.385
Bacon, sliced.....	do.....	.541	.550	.483	.490	.467	.476	.455	.461
Ham, sliced.....	do.....	.497	.489	.540	.541	.428	.439	.446	.455
Lard.....	do.....	.350	.349	.339	.334	.336	.338	.332	.333
Lamb.....	do.....	.358	.338	.380	.395	.392	.392	.375	.375
Hens.....	do.....	.375	.340	.421	.442	.382	.403	.425	.407
Salmon, canned.....	do.....	.354	.354	.329	.333	.233	.243	.289	.293
Eggs.....	Dozen.....	.423	.474	.521	.550	.420	.434	.426	.455
Butter.....	Pound.....	.506	.502	.526	.528	.565	.557	.511	.503
Cheese.....	do.....	.328	.338	.341	.340	.355	.350	.327	.320
Milk.....	Quart.....	.126	.126	.145	.140	.143	.145	.125	.125
Bread.....	16-oz. loaf ¹	.096	.096	.091	.090	.089	.089	.088	.088
Flour.....	Pound.....	.056	(²)	.070	.070	.067	.066	.067	.067
Corn meal.....	do.....	.081	.078	.075	.070	.062	.061	.075	.068
Rice.....	do.....	.127	.129	.121	.121	.138	.136	.128	.125
Potatoes.....	do.....	.012	.014	.024	.027	.022	.039	.020	.024
Onions.....	do.....	.024	.033	.040	.056	.063	.073	.051	.055
Beans, navy.....	do.....	.153	.155	.180	.178	.194	.191	.176	.174
Prunes.....	do.....	.134	.137	.181	.176	.161	.157	.186	.195
Raisins, seeded.....	do.....	.139	.137	.148	.148	.148	.148	.150	.150
Sugar.....	do.....	.089	.091	.094	.094	.093	.093	.090	.090
Coffee.....	do.....	.323	.329	.343	.339	.276	.275	.299	.294
Tea.....	do.....	.579	.585	.575	.584	.753	.757	.540	.565

¹ 16 ounces, weight of dough.

² No flour sold in Portland, Oreg., June 15, 1918.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 30 CITIES FOR MAY 15, 1918, AND JUNE 15, 1918, AND FOR 1 CITY FOR JUNE 15, 1918—Concluded.

Article.	Unit.	St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
		May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.	May 15, 1918.	June 15, 1918.
Sirloin steak.....	Pound...	\$0.365	\$0.399	\$0.340	\$0.348	\$0.442	\$0.485	\$0.403	\$0.422
Round steak.....	do.....	.352	.384	.327	.329	.405	.449	.394	.379
Rib roast.....	do.....	.311	.342	.279	.286	.346	.382	.301	.330
Chuck roast.....	do.....	.281	.304	.266	.268	.307	.345	.292	.296
Plate beef.....	do.....	.203	.215	.214	.214	.221	.245	.243	.254
Pork chops.....	do.....	.317	.347	.384	.384	.390	.404	.348	.357
Bacon, sliced.....	do.....	.493	.503	.521	.527	.521	.531	.498	.518
Ham, sliced.....	do.....	.468	.475	.475	.473	.473	.487	.475	.485
Lard.....	do.....	.319	.315	.360	.348	.324	.318	.329	.325
Lamb.....	do.....	.324	.333	.344	.331	.393	.408	.381	.393
Hens.....	do.....	.334	.322	.390	.358	.424	.433	.303	.290
Salmon, canned.....	do.....	.291	.291	.329	.303	.287	.305	.274	.278
Eggs.....	Dozen.....	.371	.377	.392	.407	.435	.444	.385	.378
Butter.....	Pound.....	.471	.473	.495	.493	.508	.505	.520	.514
Cheese.....	do.....	.311	.312	.329	.320	.320	.320	.350	.321
Milk.....	Quart.....	.100	.100	.114	.114	.120	.120	.111	.111
Bread.....	16-oz. loaf ¹	.075	.075	.087	.087	.087	.087	.090	.090
Flour.....	Pound.....	.060	.060	.063	.056	.069	.070	.063	.068
Corn meal.....	do.....	.064	.062	.076	.074	.075	.077	.081	.076
Rice.....	do.....	.128	.133	.123	.121	.121	.124	.128	.132
Potatoes.....	do.....	.014	.017	.013	.017	.021	.023	.020	.033
Onions.....	do.....	.024	.043	.033	.052	.055	.054	.047	.047
Beans, navy.....	do.....	.185	.178	.171	.188	.177	.178	.194	.189
Prunes.....	do.....	.165	.167	.148	.152	.164	.168	.167	.171
Raisins, seeded.....	do.....	.145	.146	.142	.144	.143	.145	.177	.171
Sugar.....	do.....	.095	.094	.097	.095	.090	.090	.094	.095
Coffee.....	do.....	.316	.318	.350	.350	.319	.323	.300	.295
Tea.....	do.....	.543	.569	.623	.611	.597	.588	.750	.757

¹ 16 ounces, weight of dough.

PRICE CHANGES, WHOLESALE AND RETAIL, IN THE UNITED STATES.

A comparison of wholesale and retail price changes for important food articles is contained in the table which follows. In using these figures it should be understood that the retail prices are not in all cases based on precisely the same articles as are the wholesale prices. For example, fresh beef is not sold by the retailer in the same form in which it leaves the wholesaler. In such cases the articles most nearly comparable were used. It was found impracticable also in most instances to obtain both wholesale and retail prices for the same date. The retail prices shown are uniformly those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days prior to the 15th. For these reasons exact comparison of wholesale with retail prices can not be made. The figures may be considered indicative, however, of price variations in the retail as compared with the wholesale markets.

In the table which follows, the wholesale price is in each case the mean of the high and the low quotations on the date selected, as published in leading trade journals, while the retail price is the average of all prices reported directly to the bureau by retailers for the article and city in question. The initials W. and R. are used to designate wholesale and retail prices, respectively.

To assist in comparing wholesale with retail price fluctuations the differential between the two series of quotations at successive dates is given. It should not be assumed, however, that this differential represents even approximately the margin of profit received by the retailer, since, in addition to possible differences of grade between the articles shown at wholesale and retail, various items of handling cost to both wholesaler and retailer are included in the figure.

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES.

[The initial W=wholesale; R=retail.]

Article and city.	Unit.	1913: Average for year.	July.			1917				1918		
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	June.
Beef, Chicago:												
Steer loin ends.....W..	Lb..	\$0.168	\$0.175	\$0.160	\$0.205	\$0.200	\$0.200	\$0.190	\$0.235	\$0.200	\$0.230	\$0.320
Sirloin steak.....R..	Lb..	.232	.260	.258	.281	.265	.293	.302	.306	.302	.337	.379
Price differential.....		.064	.085	.098	.076	.065	.093	.112	.071	.102	.107	.059
Beef, Chicago:												
Steer rounds, No. 2..W..	Lb..	.131	.145	.143	.145	.120	.155	.170	.190	.165	.185	.240
Round steak.....R..	Lb..	.202	.233	.228	.241	.227	.256	.266	.273	.273	.304	.349
Price differential.....		.071	.088	.085	.096	.107	.101	.096	.083	.108	.119	.109
Beef, Chicago:												
Steer ribs, No. 2...W..	Lb..	.157	.165	.145	.175	.160	.210	.200	.230	.200	.220	.300
Rib roast.....R..	Lb..	.195	.212	.213	.229	.223	.241	.246	.247	.254	.288	.319
Price differential.....		.038	.047	.068	.054	.063	.031	.046	.017	.054	.068	.019
Beef, New York:												
No. 2, loins.....W..	Lb..	.158	.183	.170	.200	.180	.190	.190	.275	.235	.260	.320
Sirloin steak.....R..	Lb..	.259	.274	.282	.294	.284	.318	.337	.356	.344	.380	.441
Price differential.....		.101	.091	.112	.094	.104	.128	.147	.081	.109	.120	.121
Beef, New York:												
No. 2, rounds.....W..	Lb..	.121	.135	.135	.145	.130	.170	.175	.190	.180	.200	.240
Round steak.....R..	Lb..	.249	.270	.271	.289	.275	.315	.337	.360	.352	.384	.452
Price differential.....		.128	.135	.136	.144	.145	.145	.162	.170	.172	.184	.212
Beef, New York:												
No. 2, ribs.....W..	Lb..	.151	.165	.150	.180	.160	.200	.190	.275	.235	.250	.295
Rib roast.....R..	Lb..	.218	.225	.227	.243	.238	.270	.279	.298	.294	.324	.382
Price differential.....		.067	.060	.067	.063	.078	.070	.089	.023	.059	.074	.087
Pork, Chicago:												
Loins.....W..	Lb..	.149	.165	.150	.165	.165	.240	.250	.330	.270	.290	.300
Chops.....R..	Lb..	.190	.204	.201	.217	.227	.285	.292	.358	.316	.330	.360
Price differential.....		.041	.039	.051	.052	.062	.045	.042	.028	.046	.040	.060
Pork, New York:												
Loins, western.....W..	Lb..	.152	.163	.153	.165	.170	.235	.235	.300	.265	.275	.290
Chops.....R..	Lb..	.217	.230	.217	.239	.248	.319	.326	.399	.348	.367	.397
Price differential.....		.065	.067	.064	.074	.078	.084	.091	.099	.083	.092	.107
Bacon, Chicago:												
Short clear sides.....W..	Lb..	.127	.139	.113	.159	.158	.218	.247	.318	.301	.275	.251
Sliced.....R..	Lb..	.294	.318	.315	.328	.316	.395	.439	.475	.498	.519	.550
Price differential.....		.167	.179	.202	.169	.158	.177	.192	.157	.197	.244	.299
Ham, Chicago:												
Smoked.....W..	Lb..	.166	.175	.163	.190	.188	.243	.243	.283	.298	.300	.298
Smoked, sliced.....R..	Lb..	.266	.338	.328	.349	.333	.382	.414	.439	.428	.467	.488
Price differential.....		.100	.163	.165	.159	.145	.139	.171	.156	.130	.167	.190
Lard, New York:												
Prime, contract....W..	Lb..	.110	.104	.080	.133	.159	.215	.201	.246	.246	.263	.240
Pure tub.....R..	Lb..	.160	.156	.151	.168	.213	.263	.274	.313	.330	.334	.326
Price differential.....		.050	.052	.071	.035	.054	.048	.073	.067	.084	.071	.086
Lamb, Chicago:												
Dressed round.....W..	Lb..	.140	.170	.190	.190	.200	.220	.260	.270	.240	.290	.295
Leg of, yearling....R..	Lb..	.193	.219	.208	.231	.232	.263	.287	.314	.306	.356	.356
Price differential.....		.049	.049	.018	.041	.032	.043	.027	.044	.066	.066	.061
Poultry, New York:												
Dressed fowls.....W..	Lb..	.182	.188	.175	.215	.220	.265	.248	.285	.298	.340	.345
Dressed hens.....R..	Lb..	.214	.220	.219	.256	.261	.293	.287	.323	.326	.....	.403
Price differential.....		.032	.032	.044	.041	.041	.028	.039	.038	.028	.....	.058
Butter, Chicago:												
Creamery, extra...W..	Lb..	.310	.265	.265	.275	.370	.440	.375	.435	.490	.400	.415
Creamery, extra...R..	Lb..	.362	.312	.322	.335	.438	.484	.432	.487	.544	.460	.468
Price differential.....		.052	.047	.057	.060	.068	.044	.057	.052	.054	.060	.053

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES—Concluded.

Article and city.	Unit.	1913: Average for year.	July.			1917				1918		
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	June.
Butter, New York:												
Creamery, extra... W.	Lb.	\$0.323	\$0.280	\$0.270	\$0.285	\$0.395	\$0.450	\$0.395	\$0.443	\$0.510	\$0.415	\$0.439
Creamery, extra... R.	Lb.	.382	.328	.336	.346	.460	.513	.453	.515	.574	.493	.538
Price differential.....		.059	.048	.066	.061	.065	.063	.058	.072	.064	.078	.029
Butter, San Francisco:												
Creamery, extra... W.	Lb.	.317	.245	.265	.255	.355	.390	.385	.460	.530	.375	.455
Creamery, extra... R.	Lb.	.388	.329	.338	.333	.425	.452	.455	.545	.602	.452	.507
Price differential.....		.071	.084	.073	.078	.070	.062	.070	.085	.072	.077	.052
Cheese, Chicago:												
Whole milk..... W.	Lb.	.142	.133	.145	.145	.218	.223	.216	.246	.233	.215	.219
Full cream..... R.	Lb.	.....	.....	.229	.242	.321	.327	.339	.368	.375	.353	.342
Price differential.....		.....	.....	.084	.097	.103	.104	.123	.122	.142	.138	.123
Cheese, New York:												
Who's milk, State. W.	Lb.	.154	.144	.146	.151	.220	.245	.238	.255	.230	.225	.231
Full cream..... R.	Lb.	.....	.....	.229	.228	.301	.327	.328	.340	.344	.338	.339
Price differential.....		.....	.....	.083	.077	.081	.090	.090	.085	.114	.113	.108
Cheese, San Francisco:												
Fancy..... W.	Lb.	.159	.127	.115	.135	.180	.215	.200	.220	.255	.260	.245
Full cream..... R.	Lb.	.....	.....	.200	.229	.242	.297	.297	.316	.335	.335	.314
Price differential.....		.....	.....	.085	.094	.062	.082	.097	.096	.080	.075	.069
Milk, Chicago:												
Fresh..... W.	Qt.	.038	.036	.037	.036	.045	.054	.047	.074	.070	.058	.041
Fresh, bottled..... R.	Qt.	.080	.080	.080	.081	.100	.100	.100	.129	.119	.119	.119
Price differential.....		.042	.044	.043	.045	.055	.046	.053	.055	.049	.061	.078
Milk, New York:												
Fresh..... W.	Qt.	.035	.030	.030	.031	.051	.049	.050	.072	.081	.059	.044
Fresh, bott'd..... R.	Qt.	.090	.090	.090	.090	.109	.109	.114	.138	.150	.140	.128
Price differential.....		.055	.060	.060	.059	.049	.050	.064	.066	.069	.081	.084
Milk, San Francisco:												
Fresh..... W.	Qt.	.039	.039	.038	.038	.038	.038	.043	.059	.066	.059	.059
Fresh, bottled..... R.	Qt.	.100	.100	.100	.100	.100	.100	.100	.121	.121	.121	.121
Price differential.....		.061	.061	.062	.062	.062	.062	.057	.062	.055	.062	.062
Eggs, Chicago:												
Fresh, firsts..... W.	Doz.	.226	.188	.168	.218	.485	.305	.310	.370	.565	.315	.310
Strictly fresh..... R.	Doz.	.292	.261	.248	.296	.525	.376	.406	.469	.651	.380	.394
Price differential.....		.066	.073	.080	.078	.040	.071	.096	.099	.086	.065	.084
Eggs, New York:												
Fresh, firsts..... W.	Doz.	.249	.215	.200	.241	.505	.330	.350	.400	.645	.333	.348
Strictly fresh..... R.	Doz.	.397	.353	.326	.372	.667	.424	.477	.627	.808	.476	.503
Price differential.....		.148	.138	.126	.131	.162	.094	.127	.227	.163	.143	.155
Eggs, San Francisco:												
Fresh..... W.	Doz.	.268	.230	.220	.240	.380	.280	.320	.435	.610	.365	.395
Strictly fresh..... R.	Doz.	.373	.338	.310	.333	.480	.374	.392	.608	.710	.419	.456
Price differential.....		.105	.108	.090	.093	.100	.094	.072	.173	.100	.054	.061
Meal, corn, Chicago:												
Fine..... W.	Lb.	.014	.016	.....	.019	.024	.036	.045	.052	.051	.060	.047
Fine..... R.	Lb.	.029	.028	.031	.031	.042	.050	.058	.071	.070	.072	.068
Price differential.....		.015	.012	.....	.012	.018	.014	.013	.019	.019	.012	.021
Beans, New York:												
Medium, choice... W.	Lb.	.040	.040	.058	.098	.108	.130	.154	.138	.141	.137	.124
Navy, white..... R.	Lb.	.....	.....	.081	.113	.149	.162	.188	.185	.185	.182	.178
Price differential.....		.....	.....	.023	.015	.041	.032	.034	.047	.044	.045	.054
Potatoes, Chicago:												
White ¹ W.	Bu.	.614	1.450	.400	.975	1.750	2.800	2.625	1.135	1.185	.645	1.140
White..... R.	Bu.	.900	1.400	.700	1.356	2.370	3.455	2.975	1.660	1.680	.998	1.726
Price differential.....		.286	.190	.300	.381	.620	.655	.350	.525	.495	.353	.586
Rice, New Orleans:												
Head..... W.	Lb.	.050	.054	.049	.046	.048	.049	.071	.077	.088	.088	.091
Head..... R.	Lb.	.....	.....	.075	.074	.074	.088	.101	.100	.106	.107	.114
Price differential.....		.....	.....	.026	.028	.026	.039	.030	.023	.018	.019	.023
Sugar, New York:												
Granulated..... W.	Lb.	.043	.042	.059	.075	.066	.081	.074	.082	.073	.073	.073
Granulated..... R.	Lb.	.049	.046	.063	.079	.074	.087	.084	.097	.097	.088	.088
Price differential.....		.006	.004	.004	.004	.008	.006	.010	.015	.024	.015	.015

¹ Good to choice.

Wholesale and retail prices, expressed as percentages of the average money prices for 1913, are contained in the subjoined table. A few articles included in the preceding table are omitted from this one, owing to the lack of satisfactory data for 1913. It will be seen from the table that during June the retail prices of most of the commodities included in the exhibit fluctuated at a lower percentage level, as compared with their 1913 base, than did the wholesale prices. This is particularly true of beef, pork, bacon, lard, eggs, and corn meal. For corn meal, especially, there has been a much smaller percentage of increase in the retail than in the wholesale price.

While the percentage of increase in retail prices was less than that in wholesale prices for most of the articles, it should be noted that a comparison of the actual money prices shown in the preceding table indicates that in the majority of cases the margin between the wholesale and the retail price in June, 1918, was considerably greater than in 1913. The following table shows, for example, that the wholesale price of short clear side bacon increased 98 per cent between 1913 and June, 1918, while the retail price of sliced bacon increased 87 per cent. The preceding table shows, however, that the difference between the wholesale price of the one and the retail price of the other was 16.7 cents per pound in 1913 and 29.9 cents per pound in June, 1918, or 13.2 cents more at the latter date than at the former. It is also seen that the wholesale price in June, 1918, had increased 12.4 cents over the 1913 price, while the retail price had increased 25.6 cents.

RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN
SELECTED CITIES (AVERAGE FOR 1913=100).

[The initial W=wholesale; R=retail.]

Article and city.	1913: Average for year.	July.			1917				1918		
		1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	June.
Beef, Chicago:											
Steer loin ends (hips).....W..	100	104	95	122	119	119	113	140	119	137	130
Sirloin steak.....R..	100	112	111	121	114	126	130	132	130	145	163
Beef, Chicago:											
Steer rounds, No. 2.....W..	100	111	109	111	92	118	130	145	126	141	183
Round steak.....R..	100	115	113	119	112	127	132	135	135	151	173
Beef, Chicago:											
Steer ribs, No. 2.....W..	100	105	92	111	102	134	127	146	127	140	191
Rib roast.....R..	100	109	109	117	114	124	126	127	130	148	164
Beef, New York:											
No. 2 loins, city.....W..	100	116	108	127	114	120	120	174	149	165	203
Sirloin steak.....R..	100	106	109	114	110	123	130	137	133	147	170
Beef, New York:											
No. 2 rounds, city.....W..	100	112	112	120	107	140	145	157	149	165	198
Round steak.....R..	100	108	109	116	110	127	135	145	141	154	182
Beef, New York:											
No. 2 ribs, city.....W..	100	109	106	119	106	132	126	182	156	166	195
Rib roast.....R..	100	103	104	111	109	124	128	137	135	149	175
Pork, Chicago:											
Loins.....W..	100	111	101	111	111	161	168	221	181	195	201
Chops.....R..	100	107	106	114	119	150	154	188	166	174	189
Pork, New York:											
Loins, western.....W..	100	107	101	109	112	155	155	197	174	181	191
Chops.....R..	100	106	100	110	114	147	150	184	160	169	183
Bacon, Chicago:											
Short clear sides.....W..	100	109	89	125	124	172	194	250	237	217	198
Sliced.....R..	100	108	107	112	107	134	149	162	169	177	187
Hams, Chicago:											
Smoked.....W..	100	105	98	114	113	146	146	170	180	181	180
Smoked, sliced.....R..	100	127	123	131	125	144	156	165	161	176	183
Lard, New York:											
Prime, contract.....W..	100	95	73	121	145	195	183	224	224	239	218
Pure, tub.....R..	100	98	94	105	133	164	171	196	206	209	204
Lamb, Chicago:											
Dressed, round.....W..	100	114	128	128	134	148	174	181	161	195	198
Leg of, yearling.....R..	100	111	105	117	117	133	145	159	155	180	180
Poultry, New York:											
Dressed fowls.....W..	100	103	96	118	121	146	136	157	164	187	190
Dressed hens.....R..	100	103	102	120	122	137	134	151	152	188	
Butter, Chicago:											
Creamery, extra.....W..	100	85	85	89	119	142	121	140	158	129	134
Creamery, extra.....R..	100	86	89	93	121	134	119	135	150	127	129
Butter, New York:											
Creamery, extra.....W..	100	87	84	88	122	139	122	137	158	128	136
Creamery, extra.....R..	100	86	88	91	120	134	119	135	150	129	133
Butter, San Francisco:											
Creamery, extra.....W..	100	77	84	80	112	123	121	145	167	118	144
Creamery, extra.....R..	100	85	87	86	110	116	117	140	155	116	131
Milk, Chicago:											
Fresh.....W..	100	95	97	95	118	142	124	195	184	153	108
Fresh, bottled, delivered.....R..	100	100	100	101	125	125	125	161	149	149	149
Milk, New York:											
Fresh.....W..	100	86	86	89	146	140	143	206	231	169	126
Fresh, bottled, delivered.....R..	100	100	100	100	111	121	127	153	167	156	142
Milk, San Francisco:											
Fresh.....W..	100	100	97	97	97	110	110	151	169	151	151
Fresh, bottled.....R..	100	100	100	100	100	100	100	121	121	121	121
Eggs, Chicago:											
Fresh, firsts.....W..	100	83	74	96	215	135	137	164	250	139	137
Strictly fresh.....R..	100	89	85	101	180	129	139	161	223	130	135
Eggs, New York:											
Fresh, firsts.....W..	100	86	80	97	208	133	141	161	259	134	140
Strictly fresh.....R..	100	89	82	94	168	107	120	158	204	120	127
Eggs, San Francisco:											
Fresh.....W..	100	86	82	90	142	105	119	162	228	136	147
Strictly fresh.....R..	100	91	83	89	120	100	105	163	190	112	122
Meal, corn, Chicago:											
Fine.....W..	100	114	.....	136	171	257	321	371	364	429	336
Fine.....R..	100	97	107	107	145	172	200	245	241	248	234
Potatoes, Chicago:											
White, good to choice.....W..	100	236	65	159	285	456	428	185	193	105	186
White.....R..	100	182	78	151	263	384	331	184	187	111	192
Sugar, New York:											
Granulated.....W..	100	98	137	174	153	188	172	191	170	170	170
Granulated.....R..	100	94	129	161	151	178	171	198	198	180	180

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES, 1913
TO JUNE, 1918.

In continuation of information published in the MONTHLY REVIEW,¹ index numbers showing wholesale price changes since 1913 are contained in the subjoined table. It will be seen from this table that the increase in price during the last five years has been particularly great among articles classed as farm products, cloths and clothing, and chemicals and drugs.

During 1914 the prices of most commodities increased between January and September, but declined rapidly in the closing months of the year due to the prevailing business stagnation brought about by the War. In 1915 a reaction occurred and prices again advanced, reaching high levels late in the year. Since January, 1916, the rise in wholesale prices has been unprecedented for many articles of importance, although fuel and metal products showed a sharp decline in the last half of 1917.

In the first six months of 1918 prices as a whole continued to advance, the bureau's weighted index number for June standing at 193 as compared with 184 for June, 1917, and 100 as the average for the 12 months of 1913. In the period from June, 1917, to June, 1918, the index number of farm products increased from 196 to 214, and that of cloths and clothing from 179 to 243, while that of food articles declined from 187 to 180. In the same period the index number of fuel and lighting declined from 193 to 171 and that of metals and metal products from 239 to 177. On the other hand, the index number of lumber and building materials increased from 127 to 148, that of chemicals and drugs from 165 to 205, and that of house-furnishing goods from 162 to 192 in this time. In the group of commodities classed as miscellaneous, including such important articles as cottonseed meal, lubricating oil, malt, news-print and wrapping paper, rubber, whisky, and wood pulp, the index number increased from 152 to 198.

¹ Issued by the U. S. Bureau of Labor Statistics; the name was changed to MONTHLY LABOR REVIEW with the July (1918) issue.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, 1913 TO JUNE, 1918.

[1913=100.]

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1913.										
Average for year	100	100	100	100	100	100	100	100	100	100
January	97	99	100	99	107	100	101	100	100	99
April	97	96	100	99	102	101	100	100	99	98
July	101	101	100	100	98	101	99	100	102	101
October	103	102	100	100	99	98	100	100	100	101
1914.										
Average for year	103	103	98	92	87	97	103	103	97	99
January	101	102	99	99	92	98	101	103	98	100
April	103	95	100	98	91	99	101	103	99	98
July	104	103	100	90	85	97	101	103	97	99
August	109	112	100	89	85	97	100	103	97	102
September	108	116	99	87	86	96	106	103	98	103
October	103	107	98	87	83	96	109	103	95	99
November	101	106	97	87	81	95	168	103	95	98
December	99	105	97	87	83	94	107	103	96	97
1915.										
Average for year	105	104	100	87	97	94	113	101	98	100
January	102	106	96	86	83	94	106	101	98	98
February	105	108	97	86	87	95	104	101	97	100
March	105	104	97	88	89	94	103	101	97	99
April	107	105	98	84	91	94	102	101	97	99
May	109	105	98	83	96	94	102	101	96	100
June	105	102	98	83	100	93	104	101	96	99
July	108	104	99	84	102	94	107	101	96	101
August	108	103	99	85	100	93	109	101	96	100
September	103	100	100	88	100	93	114	101	96	98
October	105	104	103	90	100	93	121	101	99	101
November	102	108	105	93	104	95	141	101	100	102
December	103	111	107	96	114	97	146	101	103	105
1916.										
Average for year	122	126	127	115	148	101	143	110	121	123
January	108	114	110	102	126	99	140	105	107	110
February	109	114	114	102	132	100	144	105	106	111
March	111	115	117	104	141	101	147	105	109	114
April	114	117	119	105	147	102	150	109	111	116
May	116	119	122	104	151	102	153	109	114	118
June	116	119	123	105	149	101	150	109	121	118
July	118	121	126	105	145	98	143	111	122	119
August	126	128	128	107	145	100	132	111	123	123
September	131	134	131	110	148	100	132	111	126	127
October	136	140	137	128	151	101	135	114	132	133
November	145	150	146	150	160	103	142	115	135	143
December	141	146	155	163	185	105	143	115	136	146
1917.										
Average for year	188	177	181	169	208	124	185	155	153	175
January	147	150	161	170	183	106	144	128	137	150
February	150	160	162	178	190	108	146	129	138	155
March	162	161	163	181	199	111	151	129	140	160
April	162	182	169	178	208	117	155	151	144	171
May	196	191	173	187	217	117	164	151	147	181
June	196	187	179	193	239	127	165	162	152	184
July	198	180	187	183	257	132	185	165	150	185
August	204	180	193	159	249	133	198	165	155	184
September	203	178	193	155	228	134	203	165	154	182
October	207	183	194	143	182	134	242	165	162	180
November	211	184	202	151	173	135	232	175	164	182
December	204	185	206	153	173	135	230	175	164	181
1918.										
January	205	188	209	169	173	136	216	188	177	185
February	207	187	213	171	175	137	217	188	181	187
March	211	178	220	171	175	142	217	188	184	187
April	217	179	230	170	176	145	214	188	192	191
May	212	178	234	172	177	147	209	188	196	191
June	214	180	243	171	177	148	205	192	198	193

¹ Preliminary

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COST OF LIVING IN NORTH ATLANTIC SHIPBUILDING DISTRICTS.

The following report shows the results of a study in the cost of living in seven shipbuilding centers on the North Atlantic Coast made by the Bureau of Labor Statistics in cooperation with the Wage Adjustment Board of the Emergency Fleet Corporation in continuation of its investigation into the cost of living in the various shipbuilding centers of the United States.

The localities covered by this report are: Bath and Portland, Me.; Baltimore, Md.; Boston, Mass.; Portsmouth, N. H.; and Newport News and Norfolk, Va.

The studies were made along the same lines as the former studies, as published in the previous issues of the MONTHLY REVIEW. Schedules showing in detail the family expenditures for the year ending March 31, 1918, were secured in these districts by agents of the Bureau of Labor Statistics, through personal visits to the homes of families of workers in shipyards, and of other families in the localities in which shipbuilding workers reside.

The following table shows the number of families scheduled in each district, and their average and per cent of total expenditures for each of the principal items of cost of living, together with the per cent of increase in the retail prices of each item in December, 1915, 1916, and 1917, and March, 1918, over the prices in December, 1914.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN YEAR ENDING MARCH 31, 1918, FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING, AND THE PER CENT OF INCREASE IN THE RETAIL PRICE OF EACH IN DECEMBER, 1915, 1916, AND 1917, AND MARCH, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

BATH, ME.: 99 families.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March, 1918, above the prices in December, 1914.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	March, 1918.
Clothing:						
Male	\$115.44	7.95	0.47	5.47	31.54	47.67
Female	121.87	8.40	2.76	8.50	27.11	61.98
Total	237.31	16.35	1.65	7.03	29.26	55.02
Furniture and furnishings.....	68.06	4.69	3.03	11.92	39.30	68.07
Food.....	657.02	45.28	11.96	18.59	49.83	47.28
Housing.....	143.13	9.86	1.10	1.43	13.82	26.33
Fuel and light.....	98.04	6.76	.....	14.43	34.92	51.32
Miscellaneous.....	247.62	17.06	1.59	13.55	39.68	47.82
Total	1,451.18	100.00	1.59	13.55	39.68	47.82

¹ Decrease.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN YEAR ENDING MARCH 31, 1918, FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING, AND THE PER CENT OF INCREASE IN THE RETAIL PRICE OF EACH IN DECEMBER, 1915, 1916, AND 1917, AND MARCH, 1918, ABOVE THE PRICES IN DECEMBER, 1914—Continued.

PORTLAND, ME.: 103 families.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March, 1918, above the prices in December, 1914.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	March, 1918.
Clothing:						
Male.....	\$105.07	7.87	1.09	8.98	31.45	51.30
Female.....	101.93	7.64	3.21	10.48	34.15	55.67
Total.....	207.00	15.51	2.13	9.72	32.78	53.45
Furniture and furnishings.....	34.27	2.57	6.24	20.94	43.49	75.17
Food.....	596.50	44.70	11.96	18.59	49.83	47.28
Housing.....	153.33	11.49	.24	.61	2.38	3.46
Fuel and light.....	82.08	6.15	.37	11.39	28.85	41.98
Miscellaneous.....	261.37	19.58	1.42	13.83	37.96	42.70
Total.....	1,334.55	100.00	1.42	13.83	37.96	42.70

BALTIMORE, MD.: 205 families.

Clothing:						
Male.....	\$118.59	8.18	2.46	22.97	49.55	70.20
Female.....	111.57	7.69	3.03	25.09	54.75	85.15
Total.....	230.16	15.87	2.74	24.00	52.07	77.44
Furniture and furnishings.....	64.51	4.45	5.59	26.38	60.79	85.04
Food.....	624.77	43.07	14.08	20.87	64.35	60.34
Housing.....	151.80	10.46	1.18	.85	2.86	4.83
Fuel and light.....	60.93	4.20	.49	9.14	24.54	42.07
Miscellaneous.....	318.35	21.95	11.37	18.51	51.27	56.80
Total.....	1,450.52	100.00	11.37	18.51	51.27	56.80

BOSTON, MASS.: 210 families.

Clothing:						
Male.....	\$116.31	7.65	6.06	20.95	45.31	74.92
Female.....	107.83	7.10	7.76	22.85	49.92	83.02
Total.....	224.14	14.75	6.88	21.86	47.53	78.82
Furniture and furnishings.....	58.35	3.84	8.40	26.31	58.37	89.97
Food.....	645.19	42.45	1.33	18.03	45.76	39.40
Housing.....	196.40	12.92	1.07	.06	1.06	.99
Fuel and light.....	79.84	5.25	1.12	10.51	29.21	39.74
Miscellaneous.....	315.98	20.79	1.57	15.72	38.13	42.95
Total.....	1,519.90	100.00	1.57	15.72	38.13	42.95

PORTSMOUTH, N. H.: 104 families.

Clothing:						
Male.....	\$106.41	7.56	2.57	14.48	39.61	70.36
Female.....	108.13	7.69	.78	10.45	40.03	63.73
Total.....	214.54	15.25	1.67	12.45	39.82	67.02
Furniture and furnishings.....	41.51	2.95	2.88	13.72	42.57	83.74
Food.....	619.84	44.05	11.96	18.59	49.83	47.28
Housing.....	147.78	10.50	.....	.43	.....	3.28
Fuel and light.....	86.20	6.13	1.72	13.69	29.28	38.03
Miscellaneous.....	297.10	21.12	1.53	14.36	39.45	45.88
Total.....	1,406.97	100.00	1.53	14.36	39.45	45.88

¹ Decrease.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN YEAR ENDING MARCH 31, 1918, FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING, AND THE PER CENT OF INCREASE IN THE RETAIL PRICE OF EACH IN DECEMBER, 1915, 1916, AND 1917, AND MARCH, 1918, ABOVE THE PRICES IN DECEMBER, 1914—Concluded.

NEWPORT NEWS, VA.: 72 white families.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March, 1918, above the prices in December, 1914.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	March, 1918.
Clothing:						
Male.....	\$124.85	8.07	2.79	15.71	46.79	70.13
Female.....	124.22	8.02	.45	3.73	28.94	61.83
Total.....	249.07	16.09	1.62	9.74	37.89	65.99
Furniture and furnishings.....	112.27	7.25	1.99	14.87	46.17	67.97
Food.....	613.61	39.65	.75	22.38	63.89	53.32
Housing.....	168.86	10.91	.47	2.98	10.40	14.57
Fuel and light.....	72.46	4.68	.....	9.07	40.00	44.16
Miscellaneous.....	331.46	21.42	.96	15.61	48.08	51.34
Total.....	1,547.73	100.00	.96	15.61	48.08	51.34

NEWPORT NEWS, VA.: 30 colored families.

Clothing:						
Male.....	\$96.77	8.13	2.79	15.71	46.79	70.13
Female.....	85.14	7.16	.45	3.73	28.94	61.83
Total.....	181.91	15.29	1.69	10.10	38.43	66.24
Furniture and furnishings.....	53.61	4.51	1.99	14.87	46.17	67.97
Food.....	496.00	41.69	.75	22.38	63.89	53.32
Housing.....	125.58	10.55	.47	2.98	10.40	14.57
Fuel and light.....	81.01	6.81	.....	9.07	40.00	44.16
Miscellaneous.....	251.60	21.15	.90	15.82	48.72	50.69
Total.....	1,189.71	100.00	.90	15.82	48.72	50.69

NORFOLK, VA.: 97 families.

Clothing:						
Male.....	\$124.99	7.48	1.60	10.33	37.15	63.47
Female.....	126.45	7.57	.....	1.68	26.02	55.33
Total.....	251.47	15.05	.80	5.98	31.55	59.39
Furniture and furnishings.....	82.19	4.92	.62	8.73	38.96	74.03
Food.....	707.83	42.36	.75	22.38	63.89	53.32
Housing.....	177.45	10.62	.07	1.72	11.72	8.32
Fuel and light.....	85.94	5.14	.....	17.03	33.30	42.95
Miscellaneous.....	366.11	21.91	.61	14.73	45.15	48.99
Total.....	1,670.99	100.00	.61	14.73	45.15	48.99

¹ Decrease.

The figures in the first figure column of the table show the average expenditure per family for the year ending with March, 1918, for each of the principal items. The second figure column shows in the form of percentages the proportion of the total amount expended for each item. The remaining columns show the average per cent of increase in the retail prices of each item in December, 1915, Decem-

ber, 1916, December, 1917, and March, 1918, over the prices in December, 1914. In determining the per cent of change in retail prices use was made of the food prices available for the locality, or a near-by locality, where prices were assumed to be subject to like influences and the per cent of change from year to year approximately the same.

The bureau has a record of retail prices of food for Baltimore and Boston extending back over several years. No food prices for Bath, Me., Portland, Me., and Portsmouth, N. H., being available, it was deemed satisfactory to use the per cent of change that took place in food prices in Manchester, N. H. For Newport News and Norfolk, Va., the per cent of change in retail prices of food in Richmond was used.

Retail prices for clothing, furniture, rent, and fuel and light were not available in the localities investigated, or in any other locality within the same zone. Prices for these articles, therefore, were gathered in each locality.

The term "miscellaneous" includes expenditures for all items—such as tobacco, liquors, cleaning supplies, amusements, vacation, etc., varying in number and amount—not included in the items specified. The increase in the cost of many of these miscellaneous items could not be traced through the period owing to changes in quality or size of unit, but it has been assumed that the percentage of increase has been approximately the same as the average increase of all known items combined.

The average per cent of increase for the total of all items each year is computed by multiplying the proportion of expenditure for each item by the per cent of increase in the retail prices of that item as compared with 1914 and dividing the aggregates of the products thus obtained by 100.

MAXIMUM PRICES FOR CERTAIN FOODS IN URUGUAY.

The maximum prices for certain food fixed by the Uruguayan National Subsistence Board which was created by the law of December 20, 1917, are contained in a communication from the American consul at Montevideo, who states that one of the most important measures taken consists in fixing maximum prices for bread. It appears that a governmental decree of April 15, 1918, set the price of bread of the first class at 4.22 cents per pound and bread of the second class at 3.75 cents per pound, but that these prices were subsequently modified by a decree of May 7 which established the following maximum rates: Flour, first grade, in 70-kilo bags (154.3 pounds), 3.89 cents per pound to bakeries; bread made of same, 4.69 cents per pound sold over the counter; flour, second grade, in 70-kilo

bags, 3.42 cents per pound to bakeries; bread made of same, 4.22 cents per pound sold over the counter.

The American consul also reports that a decree of April 23 extended that of February 9, 1918, prohibiting the exportation of eggs, so as to make it include preserved foods requiring eggs in their preparation and that a decree of April 22 supplemented prices fixed for eggs on April 9 by making the maximum price for persons selling to wholesalers 41.4 cents per dozen, for wholesalers selling to retailers 46.5 cents per dozen, and for retailers selling to the public 51.7 cents per dozen. By this decree of April 9, just mentioned, the Uruguayan Government fixed, upon the recommendation of the National Subsistence Board, maximum prices for a long list of commodities. Those established for vegetables were:

MAXIMUM PRICES FIXED FOR CERTAIN VEGETABLES BY URUGUAYAN GOVERNMENT.

Article.	Price per pound.		Article.	Price per pound.	
	For farmers and importers.	For retailers.		For farmers and importers.	For retailers.
	<i>Cents.</i>	<i>Cents.</i>		<i>Cents.</i>	<i>Cents.</i>
Cabbage.....	4.22	5.63	Red peppers.....	5.63	7.50
Lettuce.....	3.75	5.16	Tomatoes.....	2.35	3.28
Carrots.....	4.69	6.10	Onions.....	4.69	6.10
Leeks.....	4.69	6.10	Garlic.....	2.81	3.75
Beets.....	3.75	5.16	Sweet potatoes.....	2.81	3.75
Squashes.....	2.81	3.75	Eggplant.....	3.75	5.16
Radishes.....	3.28	4.69	Saltwort.....	2.81	3.75
Turnips.....	3.75	5.16	Mar del plata potatoes.....	4.22	5.63

FOOD CONTROL.

FOOD CONTROL IN THE UNITED STATES.

By the terms of an Executive order signed by the President on June 21, 1918, the capital stock of the Food Administration Grain Corporation,¹ created in accordance with the provisions of the act of Congress approved August 10, 1917, was increased from \$50,000,000 to \$150,000,000, divided into 1,500,000 shares with a par value of \$100 each. The order stipulates that none of the additional capital stock shall be sold to any person other than the United States, and authorizes and directs the United States Food Administrator to purchase all or any part of it in the name of and for the use and benefit of the United States.

The purpose of the Executive order, it is explained by the Food Administration, is twofold: First, to enable the Food Administration to make the necessary readjustments in wheat prices at guaranty terminals to cover the recent increase in railway rates; and, second, in view of the large harvest, to provide the Grain Corporation with the increased capital necessary to carry out the Government guaranty to the producer.

It is stated that the intention is, so far as the complex problem of railway rates will permit, to readjust prices at primary markets on such a footing as to place the farmer in as nearly as possible the same position he enjoyed prior to the increase in freight rates. The following are the fair-price bases, and wheat classes and grades, on which the Food Administration Grain Corporation will buy wheat in elevators at the points named:

1. The wheat grades are those adopted by the United States Department of Agriculture, under the grain standards act.

2. The Food Administration "fair prices" are named below, for "basic" wheats, and the market relations fixed as follows:

New York.....	\$2. 39½	New Orleans.....	\$2. 28
Philadelphia.....	2. 39	Galveston.....	2. 28
Baltimore.....	2. 38½	Tacoma.....	2. 20
Newport News.....	2. 38½	Seattle.....	2. 20
Duluth.....	2. 22½	Portland.....	2. 20
Minneapolis.....	2. 21½	Astoria.....	2. 20
Chicago.....	2. 26	San Francisco.....	2. 20
St. Louis.....	2. 24	Los Angeles.....	2. 20
Kansas City.....	2. 18	Intermountain basis f. o. b. loading	
Omaha.....	2. 18	point outgoing car.....	2. 00

¹ See MONTHLY REVIEW of the Bureau of Labor Statistics for September, 1917, p. 71.

The above are for "basic" wheats.¹ Certain other classes and varieties of wheat will be dealt in at premiums over, and others at discounts under, the above prices.

The "premium" wheats are as follows:	Premium.
No. 1 Dark Hard Winter.....	2 cents.
No. 1 Dark Northern Spring.....	2 cents.
No. 1 Amber Durum.....	2 cents.

The "discount" wheats are as follows:	Discount.
No. 1 Yellow Hard Winter.....	2 cents.
No. 1 Red Spring.....	5 cents.
No. 1 Red Walla.....	7 cents.
No. 1 Red Durum.....	7 cents.
No. 1 Soft White.....	2 cents.
No. 1 White Club.....	4 cents.

Discounts for grades other than No. 1:

No. 2 wheat, 3 cents under No. 1.

No. 3 wheat, 7 cents under No. 1.

Grades below No. 3 will be dealt in on sample on merit.

* * * * *

The Food Administration Grain Corporation will buy warehouse receipts in approved elevators at the principal primary markets as named above. In the Intermountain territory, where there are no public storage facilities available, an adjustment will be made to make effective the \$2 minimum for the No. 1 grade f. o. b. at loading station, outgoing car, available for transportation to a public terminal elevator. The Intermountain region comprises southern Idaho, western Montana, western Wyoming, Nevada, Utah, western Colorado, New Mexico, and Arizona.

* * * * *

At all these principal primary markets, there is an open market where all classes of buyers are well represented, and the producer and the consumer will be amply protected through the competitive activities of the several interests, the Food Administration Grain Corporation being prepared to buy and protect the "fair price" basis.

As the miller is restricted to a "fair price" basis for his flour, he can not pay more for wheat than the expense of milling and a reasonable profit will allow.

The farmer can protect himself by the study of the primary prices, deducting intermediate charges, or he can ship to the Food Administration Grain Corporation, or he may ship to a commission merchant at a terminal market, and through him secure the benefit of competitive buying.

There is nothing in the "1918 plan" which prevents a buyer at point of origin from placing his own grade upon the wheat which he purchases. If, by the buyer's act, the grade is raised, it is equivalent to an increase in the price. If the buyer lowers the grade, the producer or dealer's protection is to ship to the Food Administration Grain Corporation.

Producers or dealers have the right to bill cars of wheat direct to the Food Administration Grain Corporation at any of the principal primary markets named above. When the wheat is unloaded in the elevator, and weight and grade returns are made to the Food Administration Grain Corporation, remittance will be made on the basis of weights and grades so reported, and on the basis of the Government price, less 1 per cent administration charge for the service.

The plan announced by the Food Administration for the profit control of flour milling for the 1918 wheat crop is formulated on the

¹ Basic wheats: No. 1 Northern Spring; No. 1 Hard Winter; No. 1 Red Winter; No. 1 Durum; No. 1 Hard White.

basis of naming a maximum "fair price" at which any miller may sell flour and feed. This maximum fair price is based upon a reasonable allowance above the fair price for basic wheat for handling, milling, and marketing expenses, freight charges on products, and profit. It is expected that competition will eventually lead to reductions from these prices. The plan will be given general publicity as soon as it is completed.

Plans are also being discussed for providing a standard quality of mixed flour, both for domestic consumption and for export to our Allies. If this arrangement proves practicable, all mills will turn out a product containing a uniform percentage of wheat flour substitutes, whether for shipment abroad or for home use, so that the peoples of Europe engaged in the common struggle against the Central Powers will eat the same kind of bread as the people of America.

SUGAR REGULATIONS.

With respect to the sugar situation, the United States Food Administration issued the following statement under date of June 24, outlining regulations which became effective July 1:

A number of causes have cumulated to make our sugar position more difficult than we could have anticipated at the beginning of the year. The increased shipping needed by our growing army in France has necessitated the curtailment of sugar transportation, particularly from the longer voyage, and has thus reduced supplies both to the Allies and ourselves from remote markets. Some of the accessible sugar producing areas have proved a less yield than was anticipated, such as certain West Indian Islands. The domestic beet and Louisiana crops have fallen below anticipation. There has been some destruction of beet sugar factories in the battle areas of France and Italy. We have lost considerable sugar by submarines.

As close an estimate as we can make indicates a reasonable expectation from all sources of about 1,600,000 tons of sugar for United States consumption during the last half of the present year. This is based upon the maintenance of the present meager Allied ration. An improvement in shipping conditions would of course relieve this situation, as quantities of sugar are in unavailable markets. We must, however, base the distribution of sugar during the next six months upon the above footing. After that period the new West Indian crop will be available.

This supply of 1,600,000 tons necessitates a considerable reduction in our consumption. To provide 3 pounds of sugar per month per person for household use, to take care of our Army and Navy, and to provide for the necessary preservation of fruit, milk, etc., will require about 1,500,000 tons of sugar for the six months. A household consumption of 3 pounds per month per person, together with the special allowance for home canning, means a reduction of some 25 per cent in these branches of consumption from normal, but it is still nearly double the ration in the Allied countries, and is ample for every economical use.

* * * * *

In order to secure justice in distribution and to make the restrictive plans as effective as possible, no manufacturer or wholesaler of sugar will be allowed after July 1 to sell any sugar except to buyers who secure a certificate from the local food administrators, indicating the quantity they may buy. For the purpose of issuing these certificates the various users of sugar are divided into the following groups:

A. Candy makers, soft drinks, soda fountains, chewing gum, chocolate, and cocoa manufacturers, tobacco manufacturers, flavoring extracts, invert sugar, sirups, sweet pickles, wines, etc.

B. Commercial canners, vegetables, fruit, milk, medicinal purposes, explosives, glycerin, etc.

C. Hotels, restaurants, clubs, dining cars and steamships, boarding houses, hospitals, public institutions, and public eating places generally, in which term are included all boarding houses who take care of 25 persons or more.

D. Bakers and cracker manufacturers of all kinds.

E. Retail stores and others selling for direct consumption.

Every person in these categories must, before July 1, or as soon thereafter as the local Food Administrator determines, make a statement upon a form that will be provided showing sugar they hold or have in transit on July 1. All stocks in excess of three months' supply at the rate of consumption that will be allowed in each concern will be requisitioned by the administrators and redistributed at once. Any stock less than 90 days but in excess of 30 days must be held subject to the local administrator for distribution if necessary, depending much upon remoteness from source of supply.

* * * * *

In addition to giving the quantities on hand the statements which will be required from dealers and manufacturers in the above groups will give the following further information upon honor. Group A—that is, candy, soft drinks, etc.—must show the amount of sugar used during the months of July, August, and September, 1917, and certificates will, if the statements are correct, be based upon 50 per cent of such average use. Ice-cream makers will be entitled to 75 per cent. A certificate will be issued separately for each month's purchases.

Group B—that is, commercial canners, etc.—will be given certificates for their necessary requirements, but any resale of sugar by them except under the express direction of the local food administrator will constitute a violation of the regulations and subject them to closing of business for the war. Any sugar in hand at the end of the season must be placed at the disposal of the local administrator. * * *

Group C—that is, public eating places—will be issued certificates upon the basis of 3 pounds for each 90 meals served. * * *

Group D—that is, bakers—will receive certificates for 70 per cent of the average amount used during July, August, and September, 1917, or, alternatively, 70 per cent of that used in the month of June, 1918.

Group E—that is, retail stores—will receive for July purchases certificates, based upon the average of sugar sold during the combined three months, April, May, and June, 1918. Retailers must not sell sugar to any of the other groups—that is, to no one, except householders—without taking up the certificates of such persons. They must not sell more than 2 pounds at any one time to any town customer or more than 5 pounds at any one time to any country customer. The latter may, however, be varied by the local administrator to persons remote from town. The retailer will do his best not to sell more than 2 pounds per person per month to householders, whose cooperation with the retailer is earnestly sought.

Retailers may, as at present, sell 25 pounds of sugar to any one household for home canning upon the householder's certifying that he has not bought elsewhere and agreeing to return any balance unused for this purpose. The householder can obtain more than 25 pounds upon approval of local administrator, if supplies are available.

* * * * *

LICENSING OF STOCKYARDS.

A proclamation issued by the President on June 19 places under the license system all commercial stockyards and all commission merchants and dealers in live stock in connection with stockyards doing business after July 25, 1918. The issuing of the proclamation followed the recommendations of a committee on the live-stock and meat situation, appointed by the President and consisting of the Secretary of Agriculture, the Secretary of Labor, the Food Administrator, the chairman of the Federal Trade Commission, and the chairman of the Tariff Commission. This committee recommended that—

The stockyards should be placed under license and regulation by the Department of Agriculture, which should also establish a governmental system of animal grading under suitable regulations and methods of price reporting of actual transactions. Daily reports should be made on distribution and destinations of live stock, meats, and other products from principal packing points.

By the terms of the proclamation the duty of exercising the regulatory powers is placed in the hands of the Secretary of Agriculture. These powers have been delegated by him in turn to the Chief of the Bureau of Markets. Because of the licensing machinery developed by the Food Administration in connection with the regulation of concerns engaged in handling foods, the licenses will be handled through that organization.

FOOD REGULATIONS AND THE "FAIR PRICE LIST" IN THE DISTRICT OF COLUMBIA.

For several weeks the food administrator* for the District of Columbia, in consultation with two wholesalers, four or five retailers representing the different types of stores, such as the big downtown store, the chain store, and the neighborhood store, and two or three consumers, has compiled and caused to be published in the local press each Saturday a "fair price list" showing the maximum and minimum prices that retailers pay and housekeepers should pay for the most important articles of daily consumption. The prices are fixed after considering wholesale prices and the cost of doing business. Inspectors are constantly in the field to see that the price list is followed. If any dealer charges more than the amount stated in the fair price list, he is requested to appear before the administrator and if he can not prove that his wholesale price justifies a higher retail price, he is then permitted to choose between having his supplies cut off for a definite period or contributing a certain amount to the Red Cross. If householders are required to pay more for any commodity than the price quoted in the list, they

are requested to report the overcharge to the administrator accompanying same by sales slip, if possible. The following is the fair price list published on August 5:

WEEKLY FAIR PRICE LIST ISSUED BY FOOD ADMINISTRATOR FOR THE DISTRICT OF COLUMBIA.

Commodity.	Unit.	Retailer pays.	Consumer should pay.
Cornmeal, white, bulk.....	Pound.....	\$0.04 $\frac{1}{2}$ - \$0.04 $\frac{1}{2}$	\$0.05 - \$0.06
Wheat flour:			
Best grade.....	24 $\frac{1}{2}$ -pound bag.....	1.50	1.60 - 1.65
Do.....	12-pound bag.....	.74 $\frac{1}{2}$	.79 - .82
Do.....	6-pound bag.....	.39 $\frac{1}{2}$	.42 - .45
Broken lots.....	Pound.....		.07 $\frac{1}{2}$
Barley flour.....	do.....		.07
Corn flour.....	do.....		.07
Rice:			
Fancy, whole head.....	do.....	.10 - .11	.12 - .13
Blue Rose.....	do.....	.09 - .09 $\frac{1}{2}$	.11 - .11 $\frac{1}{2}$
Sugar, granulated, bulk or package.....	do.....	.07 $\frac{1}{2}$ - .08 $\frac{1}{2}$	.08 $\frac{1}{2}$ - .09
Lard, pure, in tubs.....	do.....	.26 $\frac{1}{2}$ - .28	.29 - .35
Lard compound.....	do.....	.24 - .25	.27 - .29
Oleomargarine.....	do.....	.27 - .29	.29 - .34
Nut oleomargarine.....	do.....	.24 - .29	.28 - .34
Butter, creamery, best table, firsts, in prints.....	do.....	.47 - .49	.51 - .56
American cheese, whole milk.....	do.....	.27 - .28	.30 - .35
Do.....	$\frac{1}{2}$ pound.....		.18
Do.....	$\frac{1}{4}$ pound.....		.10
Eggs:			
Select; fresh; candled; none small or dirty; should weigh not less than 20 ounces.....	Dozen.....	.45 - .46	.50 - .53
Current receipts; candled; none very small, very weak or very dirty; should weigh not less than 20 ounces.....	do.....	.41 - .43	.44 - .48
Beans:			
Dried lima.....	Pound.....	.14 $\frac{1}{2}$ - .15 $\frac{1}{2}$	.16 $\frac{1}{2}$ - .18
White navy.....	do.....	.11 $\frac{1}{2}$ - .14 $\frac{1}{2}$	.13 - .17
Pinto.....	do.....	.09 $\frac{1}{2}$ - .09 $\frac{1}{2}$	.11 $\frac{1}{2}$ - .12 $\frac{1}{2}$
Bacon:			
In whole piece.....	do.....	.39 - .44	.42 - .49
Sliced, in bulk.....	do.....		.48 - .51
Sliced, in carton.....	do.....	.52 - .55	.55 - .60
Ham, standard, whole.....	do.....	.30 - .32	.32 - .36
Bread:			
Victory loaf, machine made.....	$\frac{1}{2}$ pound.....		.07
Do.....	1 pound.....		.08
White potatoes, new (U. S. grade No. 1 ¹).....	15 pounds.....	.55	.65
Do (U. S. grade No. 2 ¹).....	do.....	.30 - .35	.40 - .45

¹ White potatoes, U. S. grade, No. 1, minimum size, 1 $\frac{1}{8}$ inches in diameter, free from damage caused by disease or insects; free from cuts and bruises.

White potatoes, U. S. grade, No. 2, minimum size, 1 $\frac{1}{8}$ inches in diameter, free from serious damage. "Should include no stock which is not of desirable quality, both for market and table use, and should be of fair average size."—*Department of Agriculture, Bulletin No. 763.*

It has been noticed that if the fair-price list for Washington quotes articles as eggs or fresh vegetables at 2 or 3 cents less than is quoted in the list published in other near-by cities, these articles are shipped by the producers to the city quoting the highest prices, thus producing a shortage in the other cities. The District administration is planning to build up production in the vicinity of Washington by the establishment of rural truck routes.

Owing to the necessity of conserving the sugar supply, the District food administrator, early in the canning season, issued instructions providing for the sale of sugar for preserving purposes only upon certification by the purchaser that the quantity desired was to be

used for canning, and limiting the amount to be sold to 25 pounds at any one time. Between June 25 and July 24, inclusive, it became necessary to prohibit entirely the sale of sugar for canning purposes, except to housekeepers who on June 25 had on hand a supply of fruit or vegetables to be canned or preserved.

Restrictions on the sale of sugar for purposes other than canning were issued on June 14 and communicated to all retail dealers and wholesalers selling at retail, as follows:

The sugar situation has developed during the last few days so as to require more conservation. To effect this:

1. You will limit your sales of sugar to town and city consumers to 2 pounds and your sales to rural consumers to 5 pounds.
2. Sales of sugar for canning and preserving purposes must be limited in amount hereafter to 25 pounds at one time.
3. Be alert to discover and prompt to report any case in which you have reason to believe that sugar is being bought ostensibly for canning or preserving purposes but in reality for ordinary household use.
4. The 2-pound limit does not apply to public eating places and boarding houses, but the proprietors of such places should satisfy you that the amount of sugar they desire to buy is proportionate to the number of boarders they feed.

Below are given the regulations which have been sent to all proprietors and managers of hotels, restaurants, lunch rooms, and boarding houses in the District. Proprietors were formerly allowed to serve 2 teaspoonfuls of sugar to each person at each meal, or to use 3 pounds per person per month, or at the rate of 3 pounds to every 90 meals served. The sugar allowance, effective on August 1, restricted the use of sugar to 2 pounds per person per month, or 2 pounds to every 90 meals served. The beef allowance per person has been fixed as 1½ pounds per week. It is recommended that meat be served only once a day and that this time be the evening meal. Wheatless days have been abolished, but this does not affect the rules requiring 25 per cent substitutes in Victory bread and 33½ per cent substitutes in cakes, pies, and pastry.

You are now requested to conform to the following regulations:

1. Not more than 2 ounces (gross weight) of Victory bread shall be served to any one person at any one meal. Victory bread contains 75 per cent wheat and 25 per cent substitute. Two ordinary slices weigh about 2 ounces. Or
2. Not more than 4 ounces (gross weight) of quick breads or other bread which contain 33½ per cent wheat and 66½ per cent substitute to any one person at any one meal. "Quick breads" include such products as muffins, baking powder biscuits, and brown bread, in which no yeast is used.
3. There is no limit set on the serving of breads which contain no wheat.
4. Monday and Wednesday, wheatless days, and one wheatless meal, which shall be breakfast, each day. On these days and meals no product containing wheat, except two ounces of Victory bread or 4 ounces of quick bread, may be served. This rule prohibits the serving on wheatless days and meals of macaroni, spaghetti, bread pudding, pies, cakes, pastry, or breakfast cereals containing wheat.

5. Meatless days are not in force until again ordered by this office. You are however, requested to carefully conserve meat and meat products at all times.

6. The open sugar bowl must be abolished. Each public eating place must decide for itself on the method of serving sugar, but no open bowls are permitted.

7. These rules are to be strictly observed until you are otherwise notified, and any violation may result in having your supplies cut off.

At a meeting of proprietors of public eating places held at the Business High School Friday evening, May 17, it was unanimously resolved that public eating places in the District of Columbia go upon a wheatless-bread basis, and that the wheatless bread to be served be called "Washington bread." When this bread is served, the regulations No. 1 and No. 2 above are not applicable, and rule No. 3 governs. It was further resolved that this wheatless-bread program be begun on Monday, May 20.

Following the issuance of these regulations inspections have been made of lunch rooms and other public eating places and penalties imposed for violations. However, this practice has not applied to boarding houses. Instead, inspectors have been sent to give short talks to the boarders and to ask them to sign pledges agreeing to abide by the rulings of the food administration.

Bakers in Washington are required to report weekly to the administration the amount of flour they have on hand, the amount in transit, and the amount ordered. Careful inspection is made of all bakeries and several have been closed for failure to use the required amount of substitutes. The price of bread is fixed only on the $\frac{3}{4}$ -pound and the 1-pound machine-made loaves. The following substitutes may be used in making bread: Bran, shorts, middlings, corn flour, corn meal, edible corn starch, hominy, corn grits, barley flour, rolled oats, oat meal, rice, rice flour, buckwheat flour, potato flour, sweet potato flour, tapioca flour, milo flour, kafri and feterita flours and meals, soy-bean meal, peanut meal, taro meal, taro flour, banana flour, and other products of similar nature that shall not include rye flour or rye meal of any kind. Potatoes are also a wheat flour substitute. Four pounds of raw potatoes will be considered an equivalent of 1 pound of the above-mentioned substitutes. If graham flour or so-called whole wheat flour is used, there must be added to such flour an amount of wheat flour substitute which, added to the bran, shorts, and middlings contained in the graham or whole wheat flour, will equal the total amount of substitutes required.

FOOD SITUATION IN ENGLAND.

There seems to be quite general satisfaction with the food situation under the existing conditions. Under the regulations people are rationed as regards meat, bread, sugar, tea, butter, and jam. The meat situation has improved recently, so that sausages are not rationed, and bacon restrictions have been much lessened. Each

person is allowed four coupons for meat each week, which entitle him to about a pound. Certain orders, such as bacon, require one-fourth of a coupon only; others, such as an ordinary chop or steak, a large order of chicken, etc., take a whole coupon. As fish and eggs are to be had everywhere, and of the first quality, the average person finds he gets practically all the meat he requires. Vegetables are abundant and not unreasonable in price.

According to the regulations, each person is entitled to 2 ounces of tea, 5 ounces of butter or margarine, and 6 ounces of sugar per week. The army is making large demands for jam, and to meet these it will be necessary to make over nearly all the available fruit crop to the jam manufacturers; in addition, the whole of the 1917 bitter-orange crop of Spain and Sicily has been secured for the marmalade manufacturers. Vegetable marrow is to be used in large quantities as a "body" for the jam. As an illustration of the fruit situation, it may be cited that strawberries are selling at 2s. (48.7 cents) per pound instead of 6d. (12.2 cents) or less, as in normal times. Two-fifths of the whole output of jam and marmalade will be required for the army, thus materially reducing the quantity available for the public. Hence, marked restrictions on its use have been put in force during the last month.

If a person lives in a hotel he is given 4 ounces of sugar a week which he carries to his meals as he may desire; the remaining 2 ounces the hotel retains for use in cooking. Meat coupons are given up according to one's order. Bread and tea and jam are so served as to comply with the ration order, but no coupons are issued. Butter coupons are issued, but are not always asked for, in which case butter in small quantities is served at breakfast and with tea.

Speaking of the bread subsidy, Mr. Clynes, the food controller, states that four-fifths of the bread used is made by one-tenth of the bakers, and while this may result in some excessive profits, it will be impossible at this time to change the system so as to increase disparity of price, since unevenness of price would be an immense source of labor unrest.

The subsidy for potato growing, something less than £1,500,000 (\$7,299,750), has resulted in an increase of 100,000 acres under potato crop in Great Britain, and of 120,000 acres in Ireland, with a promised yield of 680,000 tons above the output of previous years. At present approximately 18,000 tons of meat, about five-ninths of which is home-killed, are required each week to supply the normal meat ration.

The system under which anyone may obtain an "allotment" of land for gardens is as follows: In towns or their vicinity

plots of land can be obtained on application to the borough or urban district council, or, in London, to the London County Council, or to the metropolitan borough councils. In the country application is made to the parish council. If any difficulty is experienced, the matter is brought to the attention of the Board of Agriculture, which has power, under the Defense of the Realm Act, to enter forthwith upon land and to arrange for its cultivation. Possession of any land so taken will continue for the duration of the War, and for such further period as will secure any annual crops on the land at the time the War ends. No compensation on quitting will be payable to the cultivators, unless they are disturbed before January 1, 1919. It is proposed to introduce soon a bill extending this time to January 1, 1920.

The cultivation of these allotments is, possibly, the change most noticeable in the physical aspect of England. Everywhere in town and country evidences of the widespread interest may be seen. The "garden" (American "back yard") no longer is a green grass plot with borders of flowers, but a vegetable garden. Potatoes are growing in the flower beds of the old moat at Windsor Castle. Parks, club grounds, vacant lots, and railway borders, all are under cultivation. No space is too large and no corner too small. At this season the impression is gained that all England is one vast market garden and the sight which greets the eye between 6 and 10 o'clock every evening is one never to be forgotten. In former days every vacant available bit of ground of sufficient size was given over to sports and everyone who was free was indulging his craving for exercise and amusement. But now men, women, and children are everywhere to be seen cultivating their holdings, as long as daylight lasts, and as the allotments are small, the picture is indeed an animated one. This allotment of space is bringing from some quarters a remonstrance that children are being deprived of playground areas, but that has probably not assumed serious proportions as yet, although it may well be considered even now. All this food production is, of course, relieving the food condition in a great degree.

REDUCTION OF THE BREAD RATION IN GERMANY.

During the month of May the proposed reduction of the bread ration furnished one of the foremost topics for the German press. An article on this subject in the *Internationale Korrespondenz*¹ is reproduced here as typical.

From intimations of various kinds readers of the daily papers could become aware during the last few weeks that the German supply of bread grain has to reckon with

¹ *Internationale Korrespondenz*. Berlin, May 16, 1918.

special difficulties. The question whether the present bread ration will be maintained or be reduced before the new harvest has been broadly discussed. Even disavowals of announcements predicting a reduction of the bread ration were so phrased that one could read between the lines that there was imminent danger of such a reduction. To-day [May 16] the War Food Office announces officially that beginning with June 16 the flour ration will actually be reduced by 20 per cent. This 20 per cent reduction is to be mitigated by giving the communal administrations freedom to stretch the flour with substitutes. The announced reduction will nevertheless bring about a further change for the worse in the general nutrition except in cities which, like Cologne, have already made savings in their supply during the entire past year.

During the course of the War and the period of Government control of all food supplies the German population has become accustomed to the fact that in the months immediately preceding the new harvest the scarcity of supplies is more intensive than during the other months of the year. From a purely theoretical point of view it should be assumed that the food administration ought to be able to effect a uniform distribution of food and food products during the entire year. Several reasons, however, make it appear comprehensible that during the last months of the harvest year the food problem becomes more difficult to handle than during the other months. There are too many persons who during the year endeavor to secure for themselves a greater share of the general food supply than they are entitled to by right, and the methods which egotism and selfishness have invented to attain this end are countless. During the present year the general food situation was, moreover, greatly aggravated by the fact that the fodder supply was so abnormally small that there was practically a state of famine among the animals. The poor oat crop and the merely fair barley crop, as well as the poor crop of green fodder have, as a matter of course, had the effect of causing many a farmer to use bread grains to feed his steadily decreasing live stock. Extensive illegal trading in grain, which during the current harvest year has flourished as never before, has also been a means for the withdrawal of large quantities of bread grain from the general supply. Shipments from the Ukraine, which had been expected to arrive at an early date and in large quantities, have not arrived at all or only in small quantities, and the great expectations of the population with regard to this source of supply were sorely disappointed. There are plenty of reasons for the present bad situation of the food supply, but they do not alter the fact that the ration of the most important foodstuff has to be reduced.

During the early part of 1917 the food administration had also reduced the bread ration beginning with the middle of April, but it was then in a position to grant an increased meat ration as a substitute and this made the reduction of the bread ration more endurable. In the present year, however, the greatly reduced stocks of pigs and horned cattle make such action impossible, and other equivalent substitutes are very scarce. It has, however, been announced that an extra allowance of sugar, probably 25 grams (0.9 ounce) per day and per head will be granted, which allowance will be greatly welcomed by a large part of the population. It should also not be overlooked that in one respect the food situation is essentially more favorable this year than in the preceding year. A potato ration of $3\frac{1}{2}$ kilograms (7.714 pounds) per week has hitherto been maintained throughout the entire Empire and will also be maintained in the future. The very favorable weather this spring has up till now brought an abundant supply of vegetables to the markets and the prospects for a continued ample supply of vegetables are good. If the various imperial central offices for the supply of vegetables, fruit, and potatoes take suitable measures for equitable distribution of these foodstuffs the reduction of the bread ration may be made more endurable. Perhaps the hope may be realized that a good organization of the early thrashing of grain and imports from the Ukraine and Roumania will make it possible at an early

date to restore the bread ration to its former amount. In the main, however, it will depend on the further development of crop conditions and on the efficiency of the food authorities whether the present reduction of the bread ration can be made somewhat endurable to the German nation.

Of late the imperial authorities have fed the people with tales about the peace in the East and what they may expect in supplemental food supplies from Russia and Roumania. There is no doubt that these countries must export to the Central States part of their crops, and if only a small part of what has been promised to Germany is received by it then Germany should, with the aid of its own crops and of imports of fruit in the future, be able to place the nutrition of its population on a more solid basis. The results of the German crops are, however, more important than all these expectations of imports from the East. All crop reports indicate that Germany may expect a good harvest this year as far as war conditions and the consequently much more difficult facilities for cultivation permit a good harvest. It is, however, urgently desirable that in the future the War Food Office should take more efficient measures for the control of the native crops, prevent the feeding of bread grain to live stock, suppress energetically all illegal trading, and that by better organization it may assure to the German people a somewhat more equitable distribution of the available food supplies. By their active cooperation with numerous imperial offices and institutions the German workmen have shown that they are willing to aid the Government in this task. At the making of crop estimates and of inventories of supplies the Government should call in consumers' representatives, workmen's representatives should be appointed to the communal food authorities, and all important measures and new regulations should be discussed with workmen's representatives before their enactment. All these are demands which have been made time and again and on the unconditional granting of which the people must insist. Up till now the German nation has shown its readiness to bear all the privations imposed on it by the War, but it wants to convince itself through the cooperation and information of its representatives that the food authorities do everything in their power to lessen and limit these privations. Everybody is ready to make sacrifices when he knows that all classes of the population must make the same sacrifices. Hitherto this has not been the case, and it must again be emphasized that everything should be done to comply with these justified demands of the working classes. We do not dare to hope that the present reduction of the bread ration will be the last unpleasant surprise of the German consumers, but we demand of the authorities that everything shall be done to avoid unnecessary restrictions that can be prevented.

WAR NUTRITION AND PUBLIC HEALTH IN GERMANY.

On the much-discussed subject of war nutrition and public health in Germany *Vorwärts*¹ prints the following interesting article by Max Blitstein, M. D.:

The undernutrition from which we have been suffering for some time has caused a number of medical authorities to publish their views as to the effect of the war diet upon the public health. Probably this was done with the commendable intention of strengthening the population in its resolve to hold out. The statements published by these authorities are, however, of such a nature that they are more apt to excite the public than to reassure it, for they are in direct contradiction to daily observations.

One academic celebrity, for instance, makes the assertion that the meager diet on which we are put at present is not at all injurious to our health but on the contrary

¹ *Vorwärts*. Kriegskost und Gesundheit, by Max Blitstein, M. D. Berlin, Apr. 21, 1918.

contributes to improve it. He claims that we have eaten too much in peace times—nay, that we have gorged ourselves—so that the lessened food supply is a salubrious dietary cure for the population, greatly beneficial to the general health. Since the rationing of meat another professor has discovered his love for vegetarianism, which, owing to the structure of our teeth and the anatomy of the alimentary canal has formerly been combated by the medical school not only as a wrong theory of nutrition but as the product of fanatic apostles of a nature cure. With the aid of statistics a third author attempts to prove that certain diseases, as, for instance, typhlitis and also eclampsia, that dangerous disease of women for the first time pregnant, which endangers not only the life of the mother but also that of the child, have become very rare of late on account of the present diet. He also claims that it is due to the war diet that persons afflicted with diabetes are feeling much better now than in peace times; that certain skin diseases, such as psoriasis, have decreased; and finally that persons suffering from gout and rheumatism are now more rarely having acute attacks than when they were on the normal diet of peace times. These facts will not be disputed here, but the author seems to forget entirely that the rations assigned to us by the authorities are not designated for sick persons but for healthy people engaged in fatiguing labor.

The most harebrained article in this respect was written by a Prof. Sch—— and appeared in a widely read daily. This professor draws a parallel between the feeling of weakness caused by undernutrition, the growling of our hungry stomachs, and the nervousness of the population induced thereby and the symptoms shown by a morphine fiend or a drunkard who has been put on a basis of abstinence. Just as the morphine fiend does not feel well unless he has received his daily dose of the drug and the drunkard feels weak if he has not had his usual number of drinks, so a large part of the population feels sick and discontented and irritated merely for the reason that it “imagines” that it receives too little food and too small a ration of meat. This author promised that in a subsequent article he would further elucidate this wonderful idea of his. This article has never appeared, although weeks have elapsed since its announcement. It seems that the editor of this daily must have had some scruples against this kind of publicity which comes very near to jeering at our suffering population.

By Liebig, Voit, and Rubner we have been taught that a person at rest needs 2,600 calories per day, a person engaged in medium hard labor 3,100 calories, and a heavy worker about 3,800 calories. The quantity of food required for the nutrition of a person is also dependent on the weight of this person; the heavier he is the more food does he require. For each pound of its weight the human body requires in the above three classes of persons 35, 45, and 55 calories, respectively.

In nutrition, however, it is not merely a question of how much nutritive substance is introduced into the body but also how much of this substance the body assimilates. That part of the food which is not assimilated is given off unused in the excrement. It has also been found that animal food is much more intensively assimilated by the human body than vegetable food, because in the latter the nutritive substance is inclosed in cellulose, which offers considerable resistance to the gastric juices. Experience, on the other hand, has taught us that too large quantities of animal food are unsuitable from a sanitary as well as from an economic point of view.

If too much animal substance is being used in nutrition many acids, particularly uric acid, form in the blood, which are responsible for the development of numerous diseases. From an economic point of view it is important to know that vegetable food which in the animal body is being assimilated into animal food loses three-fourths of its nutritive value and consequently increases that much in cost. From these considerations it results that a system of mixed nutrition in which vegetable food predominates is the most suitable.

Let us see what quantities of food the German people receive in their rations, in order to determine whether these rations correspond to hygienic requirements. They receive per week 1,950 grams (68.8 ounces) of rye bread, equivalent to 4,000 calories; 70 grams (2.5 ounces) of fat, equivalent to 225 calories; 250 grams (8.8 ounces) of meat, equivalent to 250 calories; 3,500 grams (123.5 ounces) of potatoes, equivalent to 2,100 calories; and 190 grams (6.7 ounces) of sugar, equivalent to 730 calories. Now and then they also receive 100 grams (3.5 ounces) of farinaceous food (macaroni, noodles, etc.), or grits, or sago, or 250 grams (8.8 ounces) of artificial honey, or 500 grams (17.6 ounces) of marmalade which may be valued at 200 calories per week. This gives a per capita total of 7,505 calories per week, or 1,072 calories per day. Heavy workers (*Schwerarbeiter*) who receive an additional food allowance, the so-called Hindenburg allowance, which, however, is granted very irregularly, as well as infants and children up to 6 years of age who also receive special food allowances, are not being considered in this computation. As the quantity of food required depends also on the weight of the individual persons, the average weight per person of the total population must be computed. If children are included in this computation this average weight according to the last statistics is 46 kilograms (101.4 pounds). According to the data given above a man engaged in medium heavy labor would, therefore, require 46 times 45 calories, or 2,070 calories. These figures show plainly that the German people receive just one-half the food they require for the maintenance of their health and efficiency. The remainder of the food requirements of the population must be covered from those foodstuffs which so far have not been subject to rationing and may be obtained in free traffic. Kohlrabi is the only important foodstuff that has not been rationed, and 1½ kilograms (3.3 pounds) of it would be required to make up the deficit in the food rations. It should, moreover, be remarked here that owing to the large share of vegetable food in the present war diet the nutrition is very defective and its injurious consequences are being noticed by every physician.

According to their contents our foodstuffs may be divided into albuminous, fatty, and starchy substances. Formerly it was assumed that a diet which corresponds to human requirements must contain 120 grams (4.2 ounces) of albumin. Later on it was admitted that the human body can exist fairly well on 90 grams (3.2 ounces) of albumin, and according to the latest researches of Chittenden and Hinderhede even 50 to 60 grams (1.8 to 2.1 ounces) are sufficient to maintain the normal weight of the human body provided that sufficient fat is contained in the diet. These data also show that the quantity, composition, and variety of our present diet is entirely insufficient. Every physician now has a large number of patients who complain about general debility, fainting fits, vertigo, etc. In all these cases the diagnosis is always serious exhaustion for want of food. They all state that they have lost weight considerably, some of them 45 kilograms (99.2 pounds) and even more.

The question arises whether something can be done to remedy this general state of exhaustion. We have already seen that nature helps itself in so far as the weight of the individual person decreases; for when his weight decreases man can exist on less food. The individual German may, moreover, help himself by very thorough assimilation of the food supply available to him. As vegetable food is predominating in the present diet more thorough assimilation of the food may be effected through a very careful cooking process, or more correctly expressed, through a steaming process which can be best effected with the aid of a fireless cooker, which must, however, be so constructed that the pots are as hot when taken out of the cooker as when put into it. This steaming process thoroughly loosens and destroys the cellulose fiber and the nutritive substance contained in it can be completely absorbed by the digestive apparatus. Long and careful chewing of the food, so-called Fletcherizing, is also to be recommended. Conservation of energy and animal heat through reduction of the hours of labor is likewise of importance. The harder and longer a man works

and the more heat he gives off the more food he must, of course, consume in order to make up for the expenditure of energy and heat.

More essential, however, is the aid which the authorities can give. They must see, under all circumstances, that no more vegetable foodstuffs are used as feed than are absolutely necessary for the maintenance of the live stock, for three-fourths of the nutritive value of vegetable foodstuffs is lost when such foodstuffs are fed to live stock. The further fact that nearly all rationed foodstuffs, such as meat, eggs, butter, potatoes, bacon, etc., may be obtained in sufficient quantities from illicit dealers, whenever the price requested by the latter is forthcoming, shows plainly that these foodstuffs are not always seized in a thorough manner from the producer or from the persons who buy them up illicitly. More stringent laws against such illicit trading do not improve conditions; they merely increase the risk of the dealer and consequently also the prices, and narrow still more the sphere of the people who are still able to supplement their legal rations by such contraband foodstuffs. Persons who have made great profits from the sale of war materials are willing to pay even the increased prices and the contraband trade in food continues to flourish. Considering the great power with which the war laws have invested the Government, the latter should be able to seize all foodstuffs completely so that contraband trade in food would be impossible.

WAGES AND HOURS OF LABOR.

NEWS PRINT PAPER WORKERS GRANTED WAGE INCREASE BY NATIONAL WAR LABOR BOARD.

The final decision and award in the wage controversy between the manufacturers of news print paper and their employees, involving 19 companies scattered throughout the country, was handed down by the National War Labor Board late in June. By this award the employees are to receive a general advance of 10 cents per hour, minimum rates of pay are established for both men and women, the basic 8-hour day is recognized, provision is made for periodical adjustment of wages based on the cost of living, and the right of the workers to organize is upheld. The following is the text of the decision:¹

The hours of employment and general working conditions in force April 30, 1918, except as herein provided, whether based upon written or verbal agreement or general understanding, shall remain in full force for and during the period of the War and for six months thereafter, unless changed by mutual consent of the committees of the employers and employees, respectively, referred to in the following subsection (a):

(a) It is recommended that a committee of five representing the employers and a similar committee representing the employees be formed by the respective groups, which said committee shall make careful investigation and study in the industry and endeavor to submit a uniform classification of employees, establish proper wage differentials between the various classes, the various grades in each class, and to formulate a schedule of working conditions that can be adopted by all the mills with a view of establishing uniform classification working conditions and wage schedules throughout the industry. These committees should be appointed at once and endeavor to reach a conclusion and report within six months from July 1, 1918.

Hours of labor.—(a) All hourly employees working inside the mills shall be paid on the basis of eight hours per day, with time and one-half for overtime. Mechanics or repair men when working outside the mill shall be paid on the same basis as if they were working inside.

(b) All employees regularly working outside the mills shall be paid on the basis of nine hours per day, with time and one-half for overtime.

Basis of wage scale.—(a) The basis of the new scale of wages for tour workers shall be 41 cents per hour.

(b) The basis of the new scale of wages for inside day workers, except girls employed in the finishing room, shall be 38 cents per hour.

(c) All female employees doing the same work as males shall receive the same rate of pay as males receive for the same work.

(d) The minimum rate for mechanical repair men shall be 50 cents per hour and for their helpers 39 cents per hour.

Rates of wages.—The rates of wages shall be 10 cents per hour higher than the rates shown in the International Paper Co.'s schedule of October 21, 1917 (Exhibit D)

¹ See Official Bulletin for June 29, 1918.

except when the addition of 10 cents per hour does not equal the minimums herein elsewhere established. Schedules showing these rates are attached hereto and made a part of this report. This schedule is used for the purpose of establishing as nearly as possible at the present time and pending the report of the joint committee herein provided for a uniform classification and wage rate. It is understood that all rates of wages are to be considered as minimum rates for the various classifications to which they are appended. In mills where the classification does not now exactly conform to the attached schedule an equitable adjustment of such minor differences as may exist shall be made, using said scale as a basis.

Adjustment of wages.—The wage scale adopted herein is based upon the present cost of living. On January 1 and July 1 of each year during the period of the War and for six months thereafter, there shall be an adjustment of wages which shall automatically take place on the above dates, providing Government statistics show an increase in the cost of living of not less than 10 per cent in excess of the cost on January-July 1, 1918, in which case the employees shall receive an increase in wages equal to said increase in the cost of living. Should said statistics show a decrease of not less than 10 per cent in the cost of living, then the rate of wages shall be correspondingly reduced.

Whenever four workers are required to work overtime for more than two weeks to fill a vacancy, all overtime over two weeks shall be paid for at double-time rates. If, however, the employer is unable to fill such vacancy he may apply to the union to furnish a suitable man to fill the same, and if the union is unable to furnish the required man the employer shall only be required to pay at the rate of time and one-half until the vacancy is filled.

In the cases of day workers working eight hours per day the employer shall have the right to designate the particular hours to be worked without overtime allowance, between 7 a. m. and 5 p. m., providing the employee works eight consecutive hours with time out for lunch.

Foremen and boss machine tenders.—Foremen and boss machine tenders shall not do manual labor in excess of 10 per cent of the time.

Holidays.—The number of holidays shall be four in each year, viz: Fourth of July, Labor Day, Thanksgiving, and Christmas. These holidays may be changed by mutual consent of employer and employees in each mill. Thirty-six hours shall be allowed for the Christmas holiday only.

Right to organize.—The right of the workers to organize in trade-unions and to bargain collectively through chosen representatives is hereby recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employer or the representatives in any manner whatsoever.

The right of employers to organize in association or groups and to bargain collectively through chosen representatives is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the workers in any manner whatsoever.

HOURS OF WORK AS RELATED TO OUTPUT AND HEALTH OF WORKERS IN COTTON MANUFACTURING.¹

The purposes of this monograph are said to be to establish the facts concerning the relation between the different hours-of-work schedules, efficiency of production and health of workers, and to present such conclusions as are clearly warranted by a scientific analysis of these

¹ National Industrial Conference Board. Hours of work as related to output and health of workers. Cotton manufacturing. Research report No. 4. March, 1918. 15 Beacon Street, Boston. 64 pp.

established facts. It can not be said that it succeeds in either purpose. It starts and finishes with the assumption that in cotton manufacturing the work is mainly automatic, the worker being little more than an attendant to the machine. Consequently the output is determined by the machine's capacity for continuous activity, and the employee's relative fatigue or freshness plays but little part. Cutting short the hours during which the machine is at work, therefore, diminishes output to an extent which is not compensated by the employee's greater efficiency, granting that the latter exists.

The data on which the report is based were gathered in part by a schedule of inquiries addressed to members of the National Association of Cotton Manufacturers and of the American Cotton Manufacturers' Association, and in part by field investigation "covering both employers and representatives of labor." The latter, however, are not quoted, nor are they referred to in any way except in this one sentence.

Schedules were returned from 109 Northern establishments with 82,036 employees, and from 57 Southern establishments with 34,347 employees. At the time of the investigation the prevailing hours were 54 to 56 in Northern and 60 in Southern establishments. The establishments which had reduced time in recent years reported as follows:

EFFECT OF REDUCTION OF HOURS ON OUTPUT IN COTTON MANUFACTURING

Effect on output accompanying reduction in hours.	Establishments.		Employees.	
	Number.	Per cent.	Number.	Per cent.
Northern establishments:				
Maintained.....	6	6.3	5,640	7.7
Decreased.....	64	67.4	43,545	59.3
Effect unreported.....	25	26.3	24,232	33.0
Total.....	95	100.0	73,417	100.0
Southern establishments:				
Maintained.....	4	11.4	1,797	8.2
Decreased.....	16	45.7	13,162	59.7
Effect unreported.....	15	42.9	7,083	32.1
Total.....	35	100.0	22,042	100.0

The reductions in time usually took place in 1912, and the figures as to output are based on short periods before and after the reduction. Other figures are given showing the output per hour or per loom or by other measure for individual mills, showing a reduction of output when hours were diminished.

The difficulty with these figures is that, dealing with a problem of admitted complexity, they take into consideration only one factor, that of hours, and ascribe any change in results to that alone.

The authors of the report assume that, since the periods taken were close together, there were no changes except in hours. This is an obviously unsafe assumption, especially as the report shows that in some cases other changes were made when hours were changed. In one mill, modern methods were introduced, and the employer reported no falling off in production. In another, in which production did diminish, the figures show that while the number of employees remained the same the number of looms in operation was decreased from 863 to 804, which would seem to indicate some decided change in methods or in character of product.

The final conclusion given as to hours is that in Northern cotton mills reductions of hours from 58 or 56 to 55 or 54 have in a great majority of cases resulted in a substantially proportional decrease in output. For Southern mills, the data are too few to justify conclusions, although there are indications "that hours in excess of 60 do not yield a materially larger output than 60 hours." It is to be observed that the conclusions as to the effect in Northern mills hold good only if the employer is careful to make no improvements in methods or equipments; otherwise they may be reversed. "One effect of shorter hours is to stimulate improvement in methods of management, in machinery, and other respects * * *. In many mills total production per employee today for the same class of product probably is greater than under any previous hours-of-work schedule. In most cases, however, this has been accomplished only by a heavy increase in investment."

In regard to the relation between hours of work and the health of the worker, absolutely nothing is shown. Some fragmentary extracts from various published reports are given, which are summed up in the statement that "apparently there is no conclusive information as to the health hazards to which cotton-mill operatives are exposed." After this it seems somewhat superfluous to give as a formal conclusion the opinion that there is "no available evidence of significant difference in health conditions as between a 54-hour, a 56-hour, or a 58-hour day."

SETTLEMENT OF WAGE DISPUTES IN BRITISH COLUMBIA SHIPYARDS.

The wage schedule applicable to shipbuilding yards on the Pacific coast, recommended on November 4, 1917, by the Shipbuilding Wage Adjustment Board as a result of its inquiry into the conditions in the shipyards of that region,¹ was subsequently adopted by the Imperial Munitions Board of Canada to apply to the Canadian yards where its contracts were placed. When, on December 8, this schedule

¹ See MONTHLY REVIEW for March, 1918, pp. 67-74.

was increased by 10 per cent, employees in the Canadian shipyards urged that the 10 per cent should apply also in their case, a view which was not accepted by the shipbuilders of the Imperial Munitions Board. A strike being threatened, the minister of labor appointed a royal commission which assumed two functions: (1) To give decisions on the various points in controversy and to make recommendations with a view of stabilizing labor conditions in the shipbuilding industry in British Columbia for the period of the War. The report of this commission, which was made public on April 23, 1918, and is presented in the June issue of the Canada Labor Gazette (pp. 409-413), reviews the shipbuilding industry in British Columbia and the relation of shipbuilding firms and machine shops to the Imperial Munitions Board, for which board most of the shipbuilding was under construction. It then states that organized labor, through the Metal Trades Council of Victoria and Vancouver, put four demands before the commission, as follows:

1. That they were entitled to an all-round 10 per cent increase in the wages then being paid in wooden and steel shipyards.
2. That the differentiation in pay which existed in the yards as between men classed as house carpenters and those classed as shipwrights was unjust and should be abolished.
3. That ordinary laborers should be paid \$4 a day.
4. That an agreement should be entered into between the Imperial Munitions Board and organized labor.

The commission decided¹ that the men in the wooden-ship yards are entitled to the 10 per cent increase demanded, retroactive from February 1, 1918, subject to the provision, among others, that they work 48 hours a week on straight time in all yards except during June, July, and August. It also decided that carpenters doing shipwright's work in shipyards should receive the minimum rate for shipwrights (\$6 per day). A rate of \$3.85 per day was recommended by the commission for ordinary laborers. The fourth demand was refused. A number of suggestions, supplementary to the foregoing, were made by the commission:

That a Dominion Government wage adjustment board be appointed to deal with the shipbuilding industry in its relation to labor, composed of one representative nominated by the contractors, one by organized labor and the third, the chairman, by the Dominion Government.

That all restrictions against what is termed unfair material should be eliminated with the qualification that where fair material were obtainable in British Columbia, other things being equal, it should be purchased there.

That agreements be entered into for the duration of the War.

That the question of open or closed shops be left to the negotiations of each party to the agreements.

¹ The decision of the commission, while signed by all its members, is not unanimous on all points in controversy, the dissenting opinions being noted in each instance.

That full freedom be given to the employer to take men from the ranks of labor to train them as mechanics, and that these men be graded and paid according to ability.

That the question of new grades of labor with corresponding increases be dealt with by the proposed wages adjustment board.

That agreements contain the usual clauses as to the settlement of disputes and grievances, and, failing a settlement between the parties, that the matters be referred to the proposed wages adjustment board and no strike or lockout take place until this board, after a public hearing, hands down a decision.

The report of the commission was rejected by the Metal Trades Association and on May 23 a strike was declared, affecting about 5,000 men. However, an adjustment of the matter was reached on June 4 resulting in a slight improvement for the men over the terms of the findings of the commission. It was agreed that wage rates should be advanced quarterly as might be warranted by fluctuation in the cost of living and that all grievances arising which the parties were unable to settle between themselves should be referred to an adjuster, whose decision should be final. It also provided that during the life of the agreement there should be no strikes or lockouts. The full text of the agreement which governs "the operations of shipbuilding and allied manufacturing plants in the Province of British Columbia, as from June 1, 1918," follows:

TEXT OF THE AGREEMENT.

SHOP RULES.

1. Eight hours shall constitute a regular day's or night's work, and 44 hours shall constitute a regular week's work.

2. All time worked over eight hours will be considered overtime and be paid for at the rate of double time until workman is relieved. Sundays and Dominion holidays, including the following, New Year's Day, Good Friday, Victoria Day, Christmas Day, Labor Day, and Saturday afternoons will be paid for at the rate of double time. Under no circumstances shall any work be performed on Labor Day, except to preserve life or property.

3. Where second and third shifts are worked the employer will allow 30 minutes for meals in each of these shifts. Where a double shift is worked double time will be paid if the job does not last longer than three nights.

4. Should a man be working during the day, then be transferred to a night shift, he shall receive the regular rate of overtime for the first night.

5. Men sent to work outside city will receive first-class transportation, board, and wages while traveling and an allowance of \$2.50 per day for board while working or waiting.

6. If a man has worked all day and is requested to travel at night, he shall receive the regular day's pay. Sleeping accommodation not being provided, the overtime rate shall prevail.

7. The employees in each craft or calling in a shop or yard shall have the right to select three of their number to represent them as members of the shop committee. Each member of this committee shall be chosen by majority vote in such manner as the employees shall direct. The chairman of each craft committee shall be a member of the joint shop committee.

8. Any committeeman appointed in the manner provided in the preceding clause who shall be found to have been discharged without just and sufficient cause after due investigation in the manner herein provided for the adjustment of grievances shall be reinstated with full pay for all time lost.

9. It is agreed that all work done in city districts and adjoining municipalities where it becomes necessary for a workman to travel from shop to job and job to shop, said traveling to be in the company's time and car fare to be supplied.

10. All grievances which arise in any shop or yard shall be given consideration as follows:

(a) All complaints and grievances to be adjusted by the foreman in charge if possible.

(b) When adjustment can not be made between the foreman and the men directly interested, the matter will be taken up by the company direct and the shop committees representing the craft having the grievances, and they shall endeavor to reach a mutual understanding.

(c) If the matter can not be adjusted between the shop committee and the employer, the shop committee may call into conference with the employer a representative chosen by the committee.

(d) In the event of an adjustment of such grievance not being reached under the provisions of the foregoing clauses, then the matter shall be referred to the adjuster, whose decision shall be final, and in the meantime there will be no lockout on the part of the company or strike on the part of the men.

11. All employees shall be paid at least every two weeks and arrangements shall be made to pay in cash. In no case shall more than three day's pay be held back.

12. Any employee being laid off, discharged, or quitting of his own volition, shall receive all wages and personal property within 24 hours of the termination of his employment.

13. Men required to work in oil tanks, or tanks of boats carrying oil, or acid tanks, the same shall be cleaned and steamed according to Government regulations. Time and one-quarter shall be paid for exceptionally dirty work.

14. Men now receiving rates in excess of the minimum rates herein quoted will suffer no reduction, except as justified under provisions of clause 15.

15. These rules to remain in effect for the period of the War. The wage rates will be revised every three months according to official information on the cost of living as published in the Labor Gazette of the Department of Labor of the Dominion of Canada as applicable to the Province of British Columbia.

16. The adjustment of grievances and of rates as provided in clauses 10 and 15 of these regulations shall be made by an adjuster appointed by the Federal Government on the joint recommendation of parties concerned. In the event of their being unable to agree, the adjuster shall be named by the Federal Government on the joint recommendation of the Minister of Labor and Senator Robertson.

RATES OF PAY.

Machinists.....	\$6.00
Machinists' specialists.....	4.50
Machinists' helpers.....	4.00
Boiler makers.....	6.00
Ship fitters.....	6.00
Riveters.....	6.00
Chippers.....	6.00
Calkers (steel).....	6.00
Flange turners.....	6.60
Pressmen.....	6.00
Planer men.....	5.00
Angle and frame setters.....	6.00

Punch and shear men.....	\$4.95
Countersinkers.....	4.65
Drillers and reamers.....	4.50
Holdings on.....	4.65
Slab helpers.....	4.30
Angle smiths.....	6.60
Angle smith heaters.....	4.50
Machine flange helpers.....	4.50
Plate hangers (leading hand).....	5.50
Plate hangers' helpers.....	4.30
Flange fire helpers.....	4.50
Boiler makers' helpers.....	4.30
Ship fitters' helpers.....	4.00
Rivet heaters.....	4.00
Blacksmiths.....	6.00
Blacksmiths' helpers.....	4.50
Molders.....	6.00
Molders' helpers.....	4.00
Furnace men.....	4.95
Casting cleaners.....	4.30
Foundry carpenters.....	4.95
Pattern makers.....	7.15
Coppersmiths.....	6.60
Coppersmiths' helpers.....	4.00
Plumbers and pipe fitters.....	6.00
Plumbers' and pipe fitters' helpers.....	4.00
Acetylene welders.....	6.00
Acetylene burners.....	5.50
Sheet-metal workers.....	6.60
Sheet-metal workers' helpers.....	4.00
Painters.....	5.50
Painters (bitumastic).....	6.60
Electrical workers.....	6.00
Electrical workers' helpers.....	4.00
Operators of locomotive cranes.....	6.60
Operators of Gantry cranes.....	6.60
Operators of double cableways.....	6.60
Operators of all double machines.....	6.60
Operators of electrical, steam, or air operated winches and donkeys.....	6.60
Operators of single aerial cableways.....	6.00
Operators of overhead cranes (in shops).....	6.00
Steam and electrical operators in power houses.....	6.00
Engineers in charge of boilers.....	5.50
Firemen.....	4.40
Oilers.....	5.00
Furnace men.....	5.00
Operators of single-drum steam, electric, or air winches and donkeys not hoisting.....	5.00
Calkers (wood).....	7.70
Shipwrights, joiners, millmen, and boat builders.....	6.60
Riggers.....	6.00
Air-machine tool men.....	4.95
Planking men.....	4.95
Ceiling men.....	4.95

Beetlers.....	\$4.95
Hook tenders.....	4.40
Degree men.....	4.40
Hand hammer clinchers.....	4.00
Woodworkers' helpers, general.....	4.00
Laborers.....	3.85

WAGES OF WOMEN AND GIRLS ON MUNITIONS WORK IN GREAT BRITAIN.

In the August, 1917, issue of the MONTHLY REVIEW (pp. 119-128) a rather exhaustive account was given of the various statutory rules and orders and miscellaneous circulars issued by the British Ministry of Munitions affecting wages of women and girls in munition factories. This article was supplemented by a brief statement in the October, 1917, issue of the MONTHLY REVIEW (p. 83) in which further changes in wages of women workers were noted. On May 8, 1918, a new order (No. 546) was issued by the Ministry of Munitions consolidating and amending existing women's wages orders. The principal amendments made by this order are thus summarized in the British Labor Gazette for June, 1918 (p. 217):¹

(a) Directions have been inserted (par. 31) enabling higher wages to be paid in special circumstances (e. g., for work in danger zones, on work injurious to health, on specially laborious and responsible work, or on work requiring special ability), the amount of wages to be settled either by agreement between the parties concerned, with the sanction of the Minister of Munitions, or, failing agreement, by arbitration.

(b) The principle of differential time rates for time workers and those on systems of payment by results is abolished. The same time rates are now prescribed for both classes of workers, but the percentage which piecework prices or premium bonus time allowances are required to yield has been altered from 33½ per cent to 25 per cent. Where prices or times already yield 25 per cent over the new time rate no alteration in either prices or times is required. As the earnings of premium bonus workers depend on their time rate, an alteration in the latter would mean an automatic increase in earnings for the same amount of work done. Pieceworkers, on the other hand, whose earnings are not calculated in terms of their time rate, would receive no such increase. It has therefore been necessary to provide that the earnings of women and girls who are now employed on premium bonus systems shall continue to be calculated on the existing time rate, provided their earnings reach the level of 25 per cent over the new time rate.

(c) The provision requiring payment to women and girls of overtime allowance on the expiration of 54 hours has been omitted so that the order may be applied to trades in which the normal working week exceeds 54 hours.

(d) In the case of women and girls employed on woodwork processes other than for aircraft, provisions have been inserted respecting payment for the first eight weeks, and workers on systems of payment by results.

(e) A section has been inserted dealing with sheet-metal work for aircraft.

(f) Difficulties having arisen out of the comparison, in establishments wholly or mainly engaged on aircraft work, between the rates paid to women on woodwork

¹ The full text of the order is printed in the June issue of the Labor Gazette, pp. 255-257.

and the rates paid on certain classes of metal work, it has been decided that in such establishments no women employed as time workers should receive a less rate than 6d. [12.2 cents] per hour after eight weeks. The rates of wages fixed vary according to the class of work and, in most cases, the age and experience of the worker.

On work of a class which, prior to the War, was customarily done by men, a minimum time rate of 6d. [12.2 cents] per hour (or 24s. [\$5.84] per week), plus an advance¹ of 6s. [\$1.46] per week, is fixed, with the provision that on work done by semiskilled men the payment shall be adjusted according to the nature of the work and ability of the women, and that women employed on work customarily done by fully skilled tradesmen shall be paid the time rates of the tradesmen whose work they undertake.

Women undertaking part only of the work customarily done by fully skilled tradesmen are to serve a probationary period of three months, during which they are to be paid at gradually rising rates until, at the end of the period, they attain the district time rate for the skilled tradesmen whom they replace, less a deduction (not exceeding 10 per cent) in cases where additional cost is incurred, through extra setting up or skilled supervision, owing to the substitution of women for men.

For girls under 18 years of age employed as time workers on work customarily done by men the rates fixed range from 14s. [\$3.41] per week at ages under 15, with a working week of 48 hours or less, upward to 23s. [\$5.60] at 17 years with a 54-hour week, with an advance¹ of 3s. [73 cents] per week in addition in each case.

Women employed on such work at piece rates are to be paid the piecework prices customarily paid for the same or similar work when done by men. In the case of girls under 18 a percentage deduction from these prices is fixed, varying according to age.

For work of a class which, prior to the War, was not recognized as men's work the time rates vary from 2½d. [5.1 cents] per hour, plus an advance¹ of 3s. [73 cents] per week, for girls under 15, to 5½d. [11.2 cents] per hour, plus an advance¹ of 6s. [\$1.46] per week, for women, 18 years and over. During a probationary period (not to exceed one month) they may be ½d. [1 cent] per hour less.

For woodwork processes and for aircraft work special rates are fixed. For women, 18 years of age and upward, after a probationary period varying from four to eight weeks, the time rates are as follows:

	Per hour. ²
Woodwork, other than machine.....	6d. [12.2 cents]
Woodwork, machine, for aircraft.....	7½d. [15.2 cents]
Woodwork, inspectors and gaugers for aircraft.....	6½d. [13.2 cents]
Sheet-metal work for aircraft: Women making straight folds, bends, and flanges; or bends and flanges (if in one plane) other than straight; or doing hand processes other than beating metal to shape from the plain sheet.....	8d. [16.2 cents]
Machine processes (subject to the provision below as to general aircraft work)	5½d. [11.2 cents]
General aircraft work in establishments wholly or mainly engaged in the manufacture or repair of aircraft.....	6d. [12.2 cents]

For women employed wholly or mainly on hand processes in the beating of metal to shape from the plain sheet (except as specified above), the rates to be paid are governed by the provisions for women employed wholly or partly on work customarily done by skilled tradesmen.

¹ The advances referred to in this article were granted subsequent to the fixing of the weekly and hourly rates quoted.

² Plus an advance of 6s. [\$1.46] per week.

**WAGES OF LANCASHIRE COTTON OPERATIVES INCREASED 25 PER CENT,
EFFECTIVE IN JUNE, 1918.**

A conference of employers and operatives in the spinning and manufacturing branches of the Lancashire (England) cotton trades, held on May 22, 1918, to discuss the demand of the workers for a wage increase of 30 per cent, resulted in a compromise by which the increase agreed upon was fixed at 25 per cent on the standard rates of wages. The new scale affects about 250,000 operatives. The Manchester (England) Guardian for May 23, 1918, contains this announcement of the advance in wages and states that the continued payment by the cotton-control board of unemployment grants to operatives who are temporarily or permanently out of work in consequence of the board's scheme for the further curtailment of the consumption of raw cotton¹ is an integral part of the agreement reached. It is also noted that the distinctive feature of the agreement is that it embraces all branches of the Lancashire cotton trade, and that the award is a uniform one. At the conclusion of the conference the secretary of the cotton-control board made the following statement:

At a meeting for the purpose of considering the wage question it was agreed to recommend to the respective organizations the following as a settlement: That an advance of 25 per cent on the standard piece price list rates of wages be paid on the pay day in the week ending June 15, 1918, and with this advance the rate of wages to remain unchanged up to and including the week ending Saturday, December 7, 1918.

That if the above is accepted the employers agree to the cotton-control board making such levies on employers running machinery as will enable the board to continue the unemployment pay at the present rate up to and including the week ending Saturday, December 7, 1918.

WAGES OF GERMAN BUILDING TRADES WORKERS IN DECEMBER, 1917.²

On December 8, 1917, the Federation of the German Building Trades Workers made an investigation of the wages of its members. The investigation included 90,000 workmen and covered all Germany. The results showed that at the time of the investigation the average hourly wage rate of masons was 95.7 pfennigs (22.8 cents) and that of helpers 85 pfennigs (20.2 cents), representing an average increase of 87.6 and 88.9 per cent, respectively, over the prewar wage rates. The average hourly wage rate of excavation laborers was found to be 82.5 pfennigs (19.6 cents), that of cement workers 103.7 pfennigs (24.7 cents), of plasterers 140.6 pfennigs (33.5 cents), and of stone-floor layers and terrazzo workers 144.4 pfennigs (34.4 cents). In addition, about one-fifth of all building-trade

¹ The cotton (restriction of output) order, 1918, became effective June 10, 1918.

²Internationale Korrespondenz. Berlin, May 10, 1918.

workers received special compensation for work performed outside their place of residence.

It should, however, be noted that since the date of the investigation a further high-cost-of-living bonus of 10 pfennigs (2.4 cents) an hour has come into force and that a new high-cost-of-living bonus of 5 pfennigs (1.2 cents) an hour has been granted, although this latter bonus is not yet effective.

Generally speaking, it can be said that the wages of German building-trade workers are now twice as high as before the War, but as the cost of all foodstuffs and necessaries has increased at a much greater rate than wages the purchasing power of the latter has been lessened considerably as compared with prewar times.

WAGE INCREASES OF GERMAN SEAMEN.¹

Negotiations conducted in Hamburg between the organized seamen of Germany and the Central Association of German Ship-owners as to further increases of war bonuses and overtime wages have recently been terminated with favorable results for the seamen.

The monthly war bonuses paid to seamen in addition to their basic wages have been increased as follows:

	From—	To—
	<i>Marks.</i>	<i>Marks.</i>
Apprentices.....	15 (\$3.57)	20 (\$4.76)
Ordinary seamen.....	25 (\$5.95)	30 (\$7.14)
Able-bodied seamen.....	40 (\$9.52)	50 (\$11.90)
Boatswains, carpenters, cooks.....	40 (\$9.52)	50 (\$11.90)
Trimmers.....	20-40 (\$4.76-\$9.52)	30-50 (\$7.14-\$11.90)
Firemen.....	40 (\$9.52)	50 (\$11.90)
Petty officers and machinists.....	40 (\$9.52)	50 (\$11.90)
Stewards.....	20-40 (\$4.76-\$9.52)	30-50 (\$7.14-\$11.90)

Married seamen of all grades are to receive an additional monthly bonus of 10 marks (\$2.38). Overtime wages, which hitherto varied between 50 and 60 pfennigs (11.9 and 14.3 cents) per hour, have been increased to 60 and 70 pfennigs (14.3 and 16.7 cents). These increases became effective on April 1, 1918, and are applicable to all parts of the North and Baltic Seas and all German navigation companies and seamen. Further negotiations with respect to questions of board, employment, and raising of the standards of qualification for crews are proposed to take place in the near future.

¹ Vorwärts. Berlin, Apr. 4, 1918.

WOMEN IN INDUSTRY.

TRAINING OF WOMEN FOR WAR WORK: A BIBLIOGRAPHY.

PREPARED BY MRS. V. B. TURNER.

This bibliography, dealing principally with the training of women for work in the engineering and metal trades, and with the processes in which they are engaged, includes also a few references to textiles, agriculture, and other employments of present interest. It does not constitute a complete or comprehensive list of the very fugitive material possible to be had upon the subject, but is merely suggestive of current experience, ideas, and accomplishment.

FRANCE.

FRANCE. Ministère de l'Armement et des Fabrications de Guerre.

Bulletin des Usines de Guerre. Paris, May, 1916, to date.

This periodical contains information regarding women's work and the training for it, especially in Government factories.

— — — Écoles l'apprentissage d'ouvriers en série.

In its Bulletin des Usines de Guerre, May 22, 1916, v. 1: 29-30.

An account of a school at Bordeaux in which workmen of both sexes may be trained in industrial processes. Includes possibilities of the school, hours, inspection, financial aid, etc.

— — — Les écoles de perfectionnement pour ouvriers.

In its Bulletin des Usines de Guerre, Apr. 2, 1917, v. 1: 386-387.

Contains the text of a circular of the Minister of Munitions dated Mar. 25, 1917, in continuation of various official acts regarding the establishment of training schools for workmen. It outlines conditions which must be met in the management of these schools. A subjoined note shows in a table the number of workers trained along this line at Delaunay-Belleville.

— — — Emploi des femmes à la fabrication des obus de gros calibres.

In its Bulletin des Usines de Guerre, Oct. 2, 1916, v. 1: 183-184.

Illustrated account of women's work on large shells.

— — — L'emploi des femmes dans les ateliers d'outillage.

In its Bulletin des Usines de Guerre, Dec. 4, 1916, v. 1: 253-254.

Illustrated account of women's work in the workshops of munitions factories.

— — — L'emploi des femmes dans les ateliers d'outillage.

In its Bulletin des Usines de Guerre, Apr. 9, 1917, v. 1: 396-397.

Illustrated article on women's work in cartridge making. Training given.

— — — Manœuvres et spécialistes.

In its Bulletin des Usines de Guerre, May 29, 1916, v. 1: 36-37.

Schools for the training of munition workers in the Delaunay-Belleville works. Program for instruction and details of course given.

— — — Organisation d'écoles de perfectionnement.

In its Bulletin des Usines de Guerre, Mar. 19, 1917, v. 1: 374.

Circular of the Minister of Munitions, dated Mar. 1, 1917, providing for the establishment of training schools in all workshops where 300 persons are employed. Asks cooperation of national professional schools in this work.

Lacoin, Maurice. Retour aux études techniques. L'enseignement professionnel des usines Berliet.

In Société d'Encouragement pour l'Industrie Nationale. Bulletin, Paris, Mar.-Apr. 1918, v. 17: 242.

Notice of the establishment in the Berliet automobile factories of a training school for shop managers called "stagiaires." This is followed, p. 243-254, by a note from the firm giving a detailed program of this work.

GREAT BRITAIN.

Addison, Christopher. Women's work and mobile labor.

In his *British Workshops and the War*. London, 1917. p. 35-37.

Sixty technical schools and colleges and five industrial factories offer courses of training to munition workers.

Behind the firing line: Some experiences in a munition factory.

Blackwood's (Edinburgh) Magazine, Feb. 1916, v. 199: 191-207.

Popular but interesting account of three weeks' training given women of leisure in a munitions factory, including hours, processes, and wages.

Brighton railway company's training school for female labor.

Railway News, London, May 8, 1915, v. 103: 743-744.

British Association for the Advancement of Science. General position of women.

In its *Draft Interim Report*, London, 1915, p. 6-12.

Discusses: Serious shortage of skilled labor; Extension of women's employment; Replacement; Readjustments; Training of skilled labor.

British women entering agriculture.

Survey, New York, Sept. 15, 1917, v. 38: 526-527.

Women's labor department, organized in January, 1917, has organizing secretaries in 60 counties and has 16 traveling inspectors. Women proving efficient in farm work. In addition to the agricultural colleges there are 247 training centers and 140 farms registered as establishments for the instruction of women.

Bullard, W. Irving. Women's work in war time.

Boston, Merchants' National Bank. [1917] 85 p.

A brief outline of the operations in British industries where women have replaced men. Training touched upon.

Chubb, I. William. Women in airplane production (Great Britain).

American Machinist, New York, Feb. 7, 1918, v. 48: 221-225.

Women as skilled mechanics on operations connected with the manufacture of airplane engines. Processes and training. Illustrated.

Corn Exchange National Bank. Processes in which women can do the work of enlisted men.

Philadelphia, Corn Exchange National Bank. [1918] 29 p.

Information concerning the processes and the industries shown was compiled from pamphlets issued by the British Government. Suggestions as to training.

Drake, Barbara. Women in the engineering trades. Trade Union Series No. 3. London, Fabian Society: Research Department, 1917. 143 p.

Includes The story of the dilution of labor; Position of women in the engineering trades during the War; Reconstruction; Appendix I. Report on engineering industry, Clyde district, by Herbert E. R. Highton; Appendix II. Statutory orders.

Employment of women as machinists.

Engineer, London, Sept. 3, 1915, v. 120: 218.

Good detailed description of women's work in Wm. Beardsman and Co.'s munitions factories.

Engineering colleges and the War, and what they can do.

Engineering, London, Dec. 24, 1915, p. 653-656.

Deals with munitions work in technical college workshops. Training of munition workers and war workers generally.

Fraser, Helen. Women in munitions.

In her *Women and War Work*. New York, 1918. p. 109-127.

An account of a school in oxy-acetylene welding established by "Women's service" of the London Society for Women's Suffrage, Miss E. C. Woodward, instructor, and of other munition work.

Gas works—substitution of women for enlisted men.

Gas Engineers' Magazine and Gas Industries, Birmingham, Eng., 1916, v. 32 : 276.

Extracts from Home Office pamphlet No. 22, Gas Works, showing processes in which women have been substituted for men.

Great Britain. Board of Trade. Report on the increased employment of women during the War, with statistics relating to Jan. 1917. 13 p.

With statistics for April, 1917. 11 p.

With statistics for July, 1916. 20 p.

Includes cotton, woolen, hosiery, lace, boot and shoe, brass, tobacco, printing, and leather industries, metal trades, textile trades, shipbuilding, engineering trades, etc.

— Home Department. Clerical and commercial employments committee.

Report London, 1915. 12 p. [Cd. 8110].

Suggested training courses on p. 9.

— Home Office.

Collection of pamphlets on the substitution of women in industry for enlisted men.

Prepared by the Home Office and the Board of Trade. Nos. 1-19. 1st. ed. July, 1916. London, 1916. 58 p. Nos. 20-26. Jan. 1917.

Series of pamphlets issued by the Government for the purpose of making available for manufacturers . . . the fullest information as to processes in which and methods by which temporary substitution of women for enlisted men is already being successfully carried out in these trades.

— — Protective clothing for women and girl workers employed in factories and workshops.

London, 1917. 15 p.

An illustrated description of clothing applicable to different trades and processes.

— — Factory department. Substitution of women for men. Tabular reports showing the present position in industries other than munition industries.

London, 1917 Jan. 1917. 216 p. May, 1917. 43 p.

Summary from Dec. 1916-May, 1917. 17 p. Includes processes, results, length of training necessary, etc.

— Ministry of Labour. *Labour Gazette*. London.

This periodical contains articles on the extension of the employment of women from the beginning of the War to Jan. 1, 1918.

— Ministry of Munitions. *Dilution of Labor Bulletin*.

A monthly publication with the D. A. Section (Dilution) of the labor supply department. Issued by the D. A. Section of the Ministry of Munitions. London, Nov. 1916 to date.

This illustrated periodical deals exclusively with unskilled labor and especially with that of women in munition and engineering trades. Exhibitions of work in various cities are shown from issue to issue, and the training of workers is also discussed. It has a supplement which gives a list of the processes in which women are successfully employed.

Great Britain. Ministry of Munitions. Notes on the employment of women on munitions of war, with an appendix on training of munition workers. London, 1916. 94 p. illus.

"This publication, issued by the Ministry of Munitions, is a photographic record with brief written descriptions of what is actually being done by women in munition factories." It contains a brief appendix on the training of munition workers.

— Wanted, 1,000 women.

London, 1917. 4 p.

The Ministry of Munitions offers to train women to make munitions . . . List of instructional factories and workshops.

— Intelligence and record section. Memorandum on women's work in English munition factories. Oct. 26, 1917. 6 typewritten pages.

Discusses the number of women employed in metal trades up to July, 1917, and their capacity for this work.

— Minute of conference on training of munition workers. Held at Ministry of Munitions on Jan. 23, 1917.

In its file, Note on training. London, 1917. 4 p. Minute contains views of experts as to the practical requirements in munition factories.

— Note on training. London, Sept. 9, 1917. 4 typewritten pages.

Training for munition work in England is conducted, as far as the Ministry is concerned, under three categories:

- (1) Training in technical schools.
- (2) Training in instructional factories.
- (3) Training in instructional bays attached to particular works.

A discussion of these three methods.

— Notes on school training, by J. L. Hall.

In its file, Note on training. London, 1917. 3 typewritten pages.

Includes details of training in a few selected schools and a statement showing actual capital expenditure on machinery to May 1, 1917, estimated ultimate capital expenditure, and the number of students enrolled in a few instructional factories.

— (Memorandum. Training 3.) Scheme for training semiskilled munition workers in technical schools.

London, 1915. 4 p.

Includes points of uniformity for all training classes and financial arrangements between the Ministry of Munitions, the Board of Education, the Scotch Education Department, and the Treasury for carrying on this training.

— Training section. Women and munitions of war. Women wanted to train for work in munitions factories.

London, 1917. 12 p.

Illustrated pamphlet showing women at work on certain processes.

List of training centers in the London area on page 2.

— War Office. Women's war work. Issued by the War Office, Sept., 1916.

London, 1916. 94 p.

Part I. Trades and processes in which women are successfully employed in temporary replacement of men.

Part II. Photographs of women workers illustrating the successful employment of women in temporary replacement of men.

Green, E. Everett. School of women signalers.

World's Work, London, July, 1916, p. 117.

- McLaren, Barbara. The women acetylene welders.
In her *Women of the War*. New York, 1917. p. 124-128.
Popular account of a school in acetylene welding.
- Notes on employment of women on munitions of war.
Engineering, London, Feb. 11, 1916, p. 137.
Illustrated article showing the different kinds of work women do in munition factories, as riveting, acetylene welding, assembling, gauging, etc.
- [Occupations of women.]
In Osborne, Harriet M., ed. *Women's Work in War Time*. London, [1917]. p. 15-84.
An outline of occupations for women, giving also hours, wages, qualifications and training of applicants, uniforms for various occupations, etc.
- Optical munition work as an employment for women.
Women's Employment, London, Aug. 1917, v. 17:3.
Outline of the course of training at the optical munitions training school at Northampton Polytechnic Institute, including time required and wages paid learners and those who have completed the training.
- Railwaymen and enlistment.
Records of Railway Interests in the War. London, 1915. Part II, p. 27-31.
An account of women's work in various positions on the railways, including a description of the Brighton railway training school at East Croyden.
- Replacement of men by women in industry during the War.
In Kirkaldy, A. W., ed. *Industry and Finance*. London, 1917. p. 24-80.
It includes: Dilution and the replacement of men by women; statistical results and comparisons; industrial processes upon which women are employed; success of women on men's work; timekeeping; sources of female labor; industrial training; welfare supervision and welfare work; wages of women in industry; trade-unions and the employment of women after the War; detailed reports on trades.
- Replacement of men by women in industry during the War.
In Kirkaldy, A. W., ed. *Labor, Finance, and the War*. London, 1916. p. 58-213.
Report on the employment of women in the engineering and shipbuilding trades, p. 99-162. Transport-tramways, p. 196-202.
- Thomas, E. N. Women workers in agriculture.
In Kirkaldy, A. W., ed. *Industry and Finance*. London, 1917. p. 146-159.
Discusses the number of women in agriculture, their various organizations, selection for the work, and training.
- [Training women for agriculture.]
Survey, New York, Sept. 15, 1917, v. 38:526-527. Under title: British women entering agriculture.
An account of training centers and farms registered as establishments for the instruction of women in agriculture.
- Training women for the land.
Local Government Chronicle, London, July 29, 1916, p. 512-513.
Scheme of the subcommittee on agricultural education.
- United States. Bureau of Labor Statistics. Women in industry. The effect of the War upon the employment of women in England, by Mary Conyngton.
In its *MONTHLY REVIEW*, Washington, Apr. 1918, v. 6:204-217.
Includes Unemployment, and relief measures; Reabsorption of unemployed women into industry; Efforts to increase the supply of women workers; Developments of 1916; Developments of 1917; and Changes in distribution of women workers, 1914-1917. Touches upon training and mentions occupations open to women since the relaxation of trade-union restrictions.
- — — Women in the munition trades in Great Britain, by Mary Conyngton.

United States. Bureau of Labor Statistics—Concluded.

In its MONTHLY REVIEW, Washington, May, 1918, v. 6:151-163.

Discusses generally the number of women in the munition trades and their training. Treats more specifically the Wages of women under the munition acts; Hours; and Grievances connected with the tribunals and leaving certificates.

War work for women.

Women's Employment, London, Apr. 7, 1916, v. 16: p. 4-6.

Outlines briefly the demand for women in various occupations, with mention of requirements and training. Includes: Accountancy; Agriculture; Bee-keeping; Canteen work; Catering; Chemistry; Clerical work; Club and welfare work; Massage; Medicine; Munition work; Police women and patrols; Railway work; Teaching, etc.

What the women are doing in the shipyards and shops in Great Britain.

Marine Engineering, London, July, 1918, v. 23: 403. From the London Daily Chronicle.

Work in the shipyards: Fitting electrical apparatus for yard lighting, mains, and telephones; hydraulic riveting; scraping and coating the bottoms of destroyers and submarines, driving cranes, etc. Work in the engineering shops: Operating radial turret drilling machines; driving overhead cranes and traveling jib cranes; acetylene welding; core making; machine molding; turning tube expander mandrills; working on horizontal and vertical drilling machines and turret and capstan lathes, etc. Illustrated. Processes only.

Where women do the heaviest work.

World's Work, London, Jan. 1918, v. 31:162-169.

Account of women employed in gas works on all kinds of work connected with gas production; also in the making of gas mantles.

Women as railway employees.

Railway News, London, Sept. 30, 1916, v. 106: 400, 401-402; Oct. 7, 1916, v. 160:441.

Women on Scottish and Great Central railways, including number, kinds of work, hours, wages, etc. Illustrated.

Women engineer students.

Engineering, London, Nov. 9, 1917, v. 104:485-488.

Description of a specially equipped factory built in Scotland for the exclusive employment of educated women.

Women in engineering shops.

Railway News, London, Mar. 30, 1918, v. 109:368.

Review of a paper by Miss O. E. Monkhouse read before the Council of the Institution of Mechanical Engineers in which she discusses the classes of women workers in these trades with the degree of fitness of each class, the difficulties to be overcome in introducing women into engineering shops, and training advantages.

Women munition workers.

Women's Employment, London, Aug. 17, 1917, v. 17:7.

Account of the training given munition workers at Shoreditch and Brixton, including hours and wages.

Women's Employment. London.

A periodical devoted to the employment of educated women.

Women's National Land Service Corps.

Annual report. Oct. 1, 1916-Sept. 30, 1917. London, 1917. 31 p.

Includes a report on the work of the corps, a list of training places, extracts from employers' and from members' letters, etc.

UNITED STATES.

Burlingame, Luther D. War work for women.

Machinery, New York, Apr. 1918, v. 24: 682-687.

A complete illustrated account of the employment and training of women by the Browne & Sharpe Manufacturing Co., Providence, R. I.

Carpenter, C. U. How we trained 5,000 women.

Industrial Management, New York, May, 1918, v. 55:355-357.

An illustrated experience of the Recording and Computing Machines Co., Dayton, Ohio, by the works manager. This also appears in U. S. Council of National Defense. Section on industrial training for the war emergency. Form letters and publicity, June 20, 1918. Washington, 1918.

Council of Organizations for War Service. The clearing house for war-time training for women.

New York, 1918. 107 p.

Includes courses in Agriculture; Applied arts; Commercial education; Household economics; Industry and trades; Languages; Library work; Professions; Scientific training; Social work. Aeroplane mechanics and shipbuilding, p. 14; Machine design, p. 15; Textile design, p. 16; Automobile mechanics and drawing, p. 49-50. Mechanical drawing and drafting, p. 14-15, etc. Information regarding these courses is also given, as: Time of classes; school giving them; fees, etc.

Decatur, I. C. Training women machinists, by I. C. Decatur and H. A. Chase.

Machinery, London, May, 1918, v. 24 : 823-824.

The thoroughly satisfactory experience of the Cummings Machine Works, Boston, Mass., in the employment of women as machinists.

Dunbar, Howard W. Training women for the drawing room, by Howard W. Dunbar and W. E. Freeland.

Iron Age, New York, July 4, 1918, v. 102: 1-5.

Successful methods employed by the Norton Grinding Co. in the engineering department—its teaching system and results secured. Illustrated.

Facts assembled on war labor problems.

Iron Age, New York, Apr. 4, 1918, v. 101: 876-881.

Industrial and efficiency engineers at Chicago conference hear report on 1,000 questionnaires on the employment of women in industry. Includes also the training of workers (men) at the Gisholt Machine Co., Madison, Wisconsin.

Miles, H. E. Vestibule schools for the unskilled. How to overcome the shortage of skilled mechanics.

Industrial Management, New York, July, 1918, v. 56: 10-12.

Includes a summary of England's experience in training semiskilled and unskilled labor (both men and women), a statement of provision which France has made for this work, and some successful results in the United States. This also appears in U. S. Council of National Defense. Section on industrial training for the war emergency. Form letters and publicity, June 20, 1918. Washington, 1918.

Summer courses in war work.

Special Libraries, New York, Jan., 1918, v. 9: 9-11.

Courses and name of institution given. New York university offers a war course in draftsmanship; Wellesley, in wireless telegraphy; California, telegraphy, wireless telegraphy, automobile construction.

United States. Bureau of Labor Statistics. Woman street railway employees, by Benjamin M. Squires.

In its MONTHLY REVIEW, Washington, May, 1918, v. 6: 1-22.

Deals with the employment of women on street railways in New York City and Brooklyn, including the number employed, places filled, hours, working conditions, and results. Tables.

United States. Council of National Defense. Section on industrial training for the war emergency. Form letters and publicity. June 20, 1918. Washington, 1918. Includes Training needed for skilled men; Training unskilled men (as observed in a New England new-type trade school); Training school for employees in the Recording and Computing Machines Co., Dayton, Ohio; Women in employment—England, United States (relative number); Reports from chairmen of branch committees; Training of operatives compulsory in France; Dilution of labor (Great Britain); Some new developments (training) in April and May; Calls for instructors, etc.

Van Kleeck, Mary. Employment of women in the storage and warehousing depots of the United States Army. (Storage Bull. No. 9. Storage committee of the War Industries Board of the Council of National Defense.) Washington, 1917. 21 p.

Report of an investigation of the possible employment of women in the stores depots of the Government, with information concerning the scope of the work of those already employed.

War emergency courses.

Special Libraries, New York, Jan. 1918, v. 9: 6-8.

What the colleges are doing to prepare women for war service, as shown by reports from representative institutions.

NOTE.—The Council of National Defense, Woman's committee (Information department), has in press a pamphlet on War Work for Women, which will furnish information regarding places where training in certain classes of work may be obtained. The committee has also a chart showing the kinds of work taught, by States.

EMPLOYMENT OF WOMEN ON GOVERNMENT WAR CONTRACTS.

Interpretation of a recent ruling by the War Department to the effect that women employed by the Government are not subject to restrictions imposed by State laws seems to have caused some confusion in New York State, and has led to the following statement issued July 12 by the Industrial Commission:

Considerable confusion has arisen over newspaper and private interpretation of a ruling said to have been made by the War Department in Washington relating to the employment of women on war contracts.

An attempt has been made to have it appear that the United States Government has ruled that women may be worked, regardless of age or other limitations imposed by New York State laws, on any and all contracts for Government work.

No such ruling has been made. The State Industrial Commission's legal department has examined the ruling upon which these misleading private interpretations have been placed. It was given in a Pennsylvania case and sets forth that employees employed directly by the United States Government and paid by the Government directly, are not subject to restrictions imposed by State laws.

The legal department holds, and the Industrial Commission agrees with it, that where women are employed by private contractors on work for the Federal authorities and draw their wages from these private sources they must be employed under the limitations as to age and hours of work laid down by the New York State labor law. The commission has directed its inspectors and the legal department to proceed along the lines indicated.

REPLACEMENT OF MEN BY WOMEN IN GREAT BRITAIN.

In the latter part of 1917 the Council of the British Association issued a report on industry and finance as affected by the War,¹ based partly on official documents and partly on the results of investigations carried on in Glasgow, Newcastle, Leeds, and Belfast. Nearly one-third of the report is devoted to the replacement of men by women in industry. The amount of such replacement was found to vary widely between different trades and localities, and even between different establishments in the same trade and locality. An example of this is given from the boot and shoe industry:

In Yorkshire, of 6 firms employing over 100 employees each, and with a total employment on 12th January of this year of 1,224, the percentage of replacement was 10.7. In the same district, of 25 firms employing under 100 employees each, and with a total employment of 1,064, the percentage of replacement was only 6.9. In the East Midlands, again, in the same industry, of 152 firms employing over 100 employees (and 35,316 in all), the percentage of replacement was 6.5; while for 66 small firms (with 4,280 employees) the percentage was 4.9. Throughout the country, 176,740 persons are estimated to have been employed in this industry on 12th January, 1917, and at that date the percentage of replacement was 6.2.

A number of factors affect the amount of substitution in any given establishment. The attitude of an employer toward the introduction of female labor, the traditions of a trade or locality, and the class of female labor available are cited as bearing upon the question. The most important factor, however, is said to be the attitude and policy of the male workers.

Attention is called to the fact that there are various degrees of replacement, and that in many cases it is difficult to say whether or not women are replacing men, since processes have been altered, new machines have been introduced, and the working force has been largely increased. In April, 1917, the number of women directly replacing men was estimated at 1,256,000, of whom over three-fourths were found in industrial and commercial occupations, and in Government employ.² The degree to which women replace men varies widely in different industries. In Government establishments, not including controlled establishments engaged on munitions work, they form 36 per cent of the total employees; in banking and finance, 24.6 per cent; in commercial occupations, 16.9 per cent; in engineering firms, 7.14 per cent; and in all the metal trades, 6.05 per cent.

¹ Industry and finance; war expedients and reconstruction, being the results of inquiries arranged by the Section of Economic Science and Statistics of the British Association, during the years 1916 and 1917; edited by A. W. Kirkaldy. Published by authority of the Council of the British Association. Pitman, London, 371 pp.

A summary of the section of this report relating to women workers in agriculture appeared in the MONTHLY REVIEW for May, 1918, pp. 61-64.

² By October, 1917, this number had increased to 1,413,000. See The Labour Gazette, London, February, 1918, p. 48.

These figures refer only to the women directly replacing men. Many others are engaged in work in which they only partially or indirectly replace men who have been withdrawn.

PROCESSES UPON WHICH WOMEN ARE EMPLOYED.

In almost all of the industries, the field of women's work has been extended since the outbreak of the War. This is especially noticeable in munition making, as before the War women in the metal working trades were engaged mostly upon totally unskilled work, whereas at the time of this report there were few operations in which women were not engaged. Special devices have been introduced in many cases to bring heavy work within the limits of a woman's strength. The following description is given of one of these devices:

Here the shells are rolled instead of lifted. A bench running the whole length of the shop has been erected between each double row of machines, the height of this bench being practically on a level with the bed of the machine. Each machine is provided with a portable wooden skid whereby, when it is laid between the bench and the machine, a shell can be easily transferred from one to the other. The system of rolling benches has been found elsewhere combined with some arrangement of tongs and chain tackle, suspended from an overhead beam, whereby the shell may be lifted from the bench into the machine, and from the machine to the bench.

A number of the Glasgow shops had what was known as a "flying squad," consisting of women trained in all or several of the operations in shell making, so that they could immediately take the place of women who were off, and whose absence might hold up material needed for subsequent operations. Such women, of course, had a more general training than was needed for the ordinary worker. Even when women were not on these squads, the investigators found, it was by no means uncommon for them to be given a much wider training on machine work than was at first thought necessary or even possible. As yet they are not, in general, "mechanics like the men they have replaced, who were, probably, in most cases, masters of several machines," but they are operating general purpose machines on which they are able to do whatever the design of the machine permits. Some of their most skilled work is done in aircraft construction:

Women now perform successfully all operations, including fitting and final assembling, upon the air pump of rotary aero-engines; e. g., turning work spindle blank in a center lathe to a limit on two diameters of plus or minus 0.01 mm. (0.0004"). Women work to a similar limit in turning the 8 mm. diameter crank pin of the air pump. In all the operations on this part of the aero-engine the female operators set and grind their tools.

As the women gain experience they become capable of more skillful work, so that it is not yet possible to say what is the limit of their capacity, except in the matter of physical strength. There

are some operations which are beyond the strength even of selected women of more than usual physical capacity.

SUCCESS OF WOMEN ON MEN'S WORK.

From the investigations conducted in private establishments it appeared that in many cases the output of women entering industry compared favorably from the first with that of the men whom they replaced. The difference appears where no change in method of operation has been adopted, as well as in processes where subdivision of labor has been introduced. One instance is reported from an engineering shop in Glasgow, in which a skilled man, employed on copper-band cutting, cut on an average 75 bands a day. Under the dilution scheme his daughter was put in his place, receiving from her father such training as was necessary. In a short time she was cutting 137 bands a day. In the tailoring trade in Leeds, however, 14 out of 21 employers reported that the output of the women was less than that of the men they had replaced; of these, two stated that the output was considerably less, and a third that it was two-thirds that of a man. "Many of the firms attributed the diminished output to lack of training, and said that no doubt it would increase in time."

The investigators tried to obtain from the employers "sufficient authoritative opinion with regard to the woman worker's relative power of initiative, concentration, self-reliance, endurance, or staying power, conscientiousness, ambition, adaptability, and accuracy to permit of a judgment from such criteria of at least certain elements of comparison." The results were inconclusive, for employers differed widely on all these points. Apparently the majority of those interrogated thought the women had less initiative and less self-reliance than men, though there were dissenters from this conclusion. On the other points there was much disagreement. Without attempting to reconcile the contradictory opinions given, the editor thus sums up the situation:

On the whole, however, it may be said, from inquiries made in Glasgow, the results of which are not separately published, and from those of which the results are printed below, that, generally, employers with experience speak very favorably of the work which the women are accomplishing. Where labor difficulties have in times past been acute, they tend even to be extravagant in their praise of women.

TIMEKEEPING.

Timekeeping is a complex question, curious variations being found between establishments employing the same class of workers and conducted in the same way. Thus, three groups of boiler makers and helpers employed in three factories controlled by the same firm showed the following amounts of time lost during a given fortnight:

	Number of workers in group.	Average hours lost per worker.
Group 1.....	327	2.22
Group 2.....	294	7.10
Group 3.....	145	4.40

Where such variations are likely to occur, generalizations are dangerous. They are especially so when men and women are compared, because of the different hours they often work. When overtime is required, as it often has been since the War began, men are almost invariably called upon for longer hours than are women. It may be regarded as fairly well established that overtime, carried beyond a certain point, leads to a loss of normal time through exhaustion or definite illness, and therefore the longer hours worked by men might naturally be reflected in a higher sickness rate, with a correspondingly greater loss of time.

Bearing these difficulties in mind, the results obtained from different establishments may be compared. Figures of timekeeping are presented for four groups of factories, the first consisting of 1,307 establishments in iron and steel, tin plate, wire drawing, hardware, engineering, electrical engineering, shipbuilding, cycles and motors, railway carriages and wagons, cutlery, tools, small arms, scientific instruments, and other metal industries, the second of 657 establishments in building, limestone quarries, iron and steel, tin-plate, wire drawing, and hardware industries; the third of 789 engineering establishments; and the fourth of 654 establishments engaged in a variety of industries. Time lost through illness, accident, or while on leave of absence is classed as unavoidably lost, while time lost from any other causes is classed as avoidably lost.

TIME LOST BY EMPLOYEES IN FOUR GROUPS OF ESTABLISHMENTS.

	Average hours per employee lost unavoidably.	Average hours per employee lost unavoidably.	Total of columns 1 and 2.
Group 1—Week ending Mar. 17, 1916:			
Male employees.....	1.8	.....	1.8
Female employees.....	1.2	.....	1.2
Group 2—Week ending Feb. 16, 1917:			
Male employees.....	.9	1.5	2.4
Female employees.....	1.4	3.7	5.1
Group 3—Week ending Mar. 16, 1917:			
Male employees.....	1.1	1.8	2.9
Female employees.....	.6	1.2	1.8
Group 4—Week ending Mar. 30, 1917:			
Male employees.....	.9	1.3	2.2
Female employees.....	.7	1.3	2.0

In every case in which the time lost unavoidably is given, it forms more than half of the total lost time, ranging from 59 to 63 per cent for male employees and from 65 to 72 per cent for female employees. The second group presents a marked contrast to the others, in that the female employees show an average of lost time more than twice as great as that of the males. No explanation of this difference is given, unless it is implied in the statement that limestone quarries are included in this group of establishments; the nature of the work and the exposure involved, especially as the time was winter, seem causes which would be apt to produce more lost time among women than among men.

Other data are given, obtained from a shell factory in Scotland, where time records were carefully kept for a period of eight weeks, from February 24 to April 21, 1917. Here the time lost was expressed in percentages of the total possible hours of work, instead of being given by average hours per worker. For the total period the percentages stood as follows:

	Male employees.	Female employees.
Percentage of time lost unavoidably to total possible hours.....	3.3	6.0
Percentage of time lost avoidably to total possible hours.....	2.0	1.7
Percentage of total time lost to total possible hours.....	5.3	7.8
Percentage of time lost unavoidably to total time lost.....	61.7	77.8

The relatively large amount of time lost in this establishment is explained by the fact that it was started later than many others in the district and so could not pick its employees as carefully as it might otherwise have done; hence the large amount of illness. The greater loss of time by the women shown here tallies rather closely with the results of another investigation, made by Prof. Loveday, in one department of a large factory where about 270 males and 290 females were engaged upon work of a light nature:

The investigation covered the period from the week ending June 6, 1916, to the week ending September 19 of the same year. The percentage ratio, for the whole period, of time lost avoidably, to gross normal time, was, in the case of men, 1.9; in the case of women, 1.8. The percentage ratio of time lost unavoidably, to gross normal time, was, for men, 3.6; for women, 5.7; giving a percentage of total time lost to gross normal time for men of 5.5; for women, 7.6.

In both these cases the records were carefully kept for considerable periods. Without questioning the accuracy of the results shown in the preceding table for Groups 1, 2, 3, and 4, the editor suggests that a fuller investigation would be desirable, in view of the difference between those results and the results obtained in the two investigations last quoted.

SOURCES OF FEMALE LABOR.

The workers covered in the investigation were largely women who had not been industrially employed before, or married women who had retired from industry on marriage but came back again in answer to the pressing demand. Approximately one-fifth had not been industrially employed until the demand for more workers during the War brought them out of their homes. To some extent women were brought over from Ireland to meet the need for munition workers, and to a greater extent women migrated from one part of England to another, and transferred from one industry to another.

INDUSTRIAL TRAINING.

Much of the work on which women have been engaged demands little or no training; but in many cases it was found that women were kept on unskilled work when they were capable, if training were provided, of undertaking more skilled operations. Where employers expect to reinstate men after the War is over they object to the trouble and expense of training women, and, if training is absolutely necessary, cut it down to the smallest proportions possible. For instance, in the tailoring trade before the War only men were employed as cutters. It has been found necessary to put women on this work, but the employers are reluctant to give them full training.

Women have now been introduced in the cutting room to work which requires accuracy and skill. As is noted in the Leeds report, the firms themselves give the necessary training. But as they do not expect to retain the women in this department, they tend to keep them on one process, instead of taking them from one to another, as they do with the boys.

Again, in banking in Scotland, the women are employed only for the duration of the War and are not permitted to join the Institute of Bankers in Scotland.

Consequently they are given no great opportunity nor, in the circumstances, do they generally seem to have any great inclination, to qualify themselves for the higher branches of banking work.

Attention is now being directed to a more advanced training to enable women to enter general engineering work. Courses of this kind are now available for women in the Leeds Technical School and in the Royal Technical College in Glasgow. As is the case with other institutions, the latter institution is working in conjunction with the Ministry of Munitions and provides such machines as horizontal and vertical drilling machines, etc.

WELFARE WORK AND SUPERVISION.

Along this line the author feels that very satisfactory progress has been made since the outbreak of the War. Welfare work was carried on before, but never so generally and extensively as now. In all

national factories, by order of the Minister of Munitions, there must be at least one welfare supervisor. The following paragraph, quoted from the report of the principal lady inspector of factories for 1916, shows something of the need for such work, and of the progress made:

The factories were classified for the guidance of the director and his staff, as to degree of urgency of the call for his attention. An examination of these records shows that 31 per cent of the factories were classified A, 49 per cent B, and 20 per cent C. It is well to grasp the point that B and C conditions meant, in varying combinations, partial or complete lack of messroom accommodations or facilities for cooking food; inadequate or nonexistent cloakrooms and washing appliances, even for dirty and greasy occupations; lack of supply of seats; need of first-aid and rest rooms; supervision even of numerous young girls by men only, and other defects, in factories mostly working 12-hour shifts, and reached often by considerable journeys from the workers' homes. Great progress has been made in 1916 in all these matters. * * * Undoubtedly a number of the factories classed B in 1916 have, during the year, qualified for class A, and to a lesser extent this is true of class C.

OTHER MATTERS.

In regard to trade-unionism among women, little advance seems to have been made during 1916. The most successful work mentioned in unionizing women is that of the National Union of General Laborers, a mixed union with about 11,000 women members in Scotland, which reports no difficulty in holding the women. The National Federation of Women Workers, which, according to a report on the employment of women in the engineering and ship-building trades for Glasgow and the Clyde had organized approximately 3,000 women in 1916, "does not seem, from a report received, to have now exceeded that number for its total membership for Scotland." This union had, in many instances, received the encouragement and assistance of officials of the Amalgamated Society of Engineers, so its comparative failure can not be attributed to masculine hostility. As to the after-war problems, the report states that apparently the replacement of skilled men by women has not been large, and that consequently, in the engineering trades at least, competition after the War is apt to be between women and unskilled men, leaving the skilled men only indirectly affected.

EMPLOYMENT OF WOMEN AND GIRLS IN GREAT BRITAIN IN JANUARY, 1918.

The following table taken from the British Labor Gazette for June, 1918 (p. 216), gives the position as regards the employment of females in January, 1918, showing (1) the expansion in the employment of women and girls since July, 1914, and (2) the extent to which women and girls are directly replacing men, according to the returns made by employers:

SUMMARY OF THE POSITION AS REGARDS THE EMPLOYMENT OF FEMALES IN GREAT BRITAIN, JANUARY, 1918.

Occupation.	Estimated number of females employed in—					Direct replacement of men by women.	
	July, 1914.	October, 1917.	January, 1918.		Number.	Per cent of those employed in July, 1914.	
			Number.	Per cent of increase over— ¹			
				July, 1914.			Oct., 1917.
Industries.....	2,175,500	2,704,500	2,708,500	24.5	0.1	503,000	23.0
Government establishments.....	2,000	213,000	209,500	10,375.0	² 1.6	197,000	8,470.0
Gas, water, and electricity (under local authorities).....	600	4,600	5,100	750.0	10.9	4,000	722.5
Agriculture in Great Britain (permanent labor).....	80,000	87,000	74,000	27.5	² 14.9	31,000	39.3
Transport (excluding tramways under local authorities).....	17,000	94,000	93,000	447.0	² 1.1	78,000	460.3
Tramways (under local authorities).....	1,200	18,200	18,200	1,416.7	.....	16,000	1,370.0
Finance and banking.....	9,500	68,500	70,500	642.1	2.9	57,000	603.8
Commerce.....	496,000	829,000	839,000	69.2	1.2	342,000	68.8
Professions.....	50,500	100,500	100,500	99.0	.....	22,000	43.0
Hotels, public houses, cinemas, theaters, etc.....	181,000	209,000	207,000	14.4	² 1.0	45,000	24.6
Civil service, post office.....	90,500	107,000	108,000	78.5	.9	53,000	86.8
Other civil service.....	5,000	75,000	81,500	1,530.0	8.7	70,000	1,410.0
Other services under local authorities.....	196,200	226,700	226,200	15.3	² .2	24,000	12.3
Total.....	3,275,000	4,737,000	4,741,000	44.8	.1	1,442,000	44.0

¹ These columns are computed; they do not appear in the original table.² Decrease.

It is explained that this table does not show the number engaged in domestic service, nor does it take into account the large movement from domestic service as well as from small dressmaking workshops and workrooms, to other occupations. It is estimated that the displacement from these two spheres of employment taken together amount to 400,000 women. Attention is also called to the fact that figures relating to the number of women employed in such services as the Women's Royal Naval Service, the Women's Army Auxiliary Corps, the Women Police, and timber cutting under the Board of Trade, are not included, nor are they available. Some indication of the large numbers of women in these services may be gathered from the statement made in the House of Commons in February, 1918, that over 20,000 women had enrolled in the Women's Army Auxiliary Corps.

During the quarter ending January, 1918, the slowing down in the rate of increase of female workers which was apparent in the previous quarter has become more striking, and in the occupations enumerated in the table there has been a total increase of female workers of only 4,000, as against 48,000 in the previous quarter and 140,000 in the quarter April to July, 1917. At the same time the falling off in the number of males employed has been conspicuously small, probably owing largely to the reinstatement of men returning from the forces.

The increase in the number of women employed in industry, though very small, is just sufficient to account for the total increase. In Government establishments there is an actual decrease, as also in hotels, public houses, and restaurants, and in all forms of transport by land. There is also a seasonal decrease in agriculture.

AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYEES.

NONUNION COLLECTIVE BARGAINING PLAN.

BY BORIS EMMET, PH.D.

The collective bargaining plan described in this article is given because it represents an interesting and instructive example of what may be called "nonunion collective bargaining." By this term is meant the collective bargaining between an employer and his own employees without the intervention of any union outside the establishment. The establishment whose collective-bargaining scheme is here described is a middle western firm manufacturing women's ready-to-wear clothing and having about 700 employees, chiefly women and girls. The three years' operation of the plan has resulted in putting on a collective basis the wage bargaining of the establishment, as well as hours of labor, discipline, discharges, and adjustment of grievances.

NATURE OF THE PLAN.

Under the scheme there are three separate bodies, known, respectively, as the senate, the cabinet, and the house of representatives. The senate and the cabinet, both of which represent the interests of the firm, were created simultaneously in June, 1914. The organization of the employees, termed the house of representatives, was created one year later.

The members of the senate are salaried employees directly connected with the planning of the work of the institution, namely, heads of departments, their assistants, superintendents, and their assistants. Application for membership must be submitted in writing to the secretary of the senate after the applicant has secured the indorsement of the firm and of at least one member of the senate. A majority vote of the members present is required for election. Membership ceases upon termination of employment with the company. Each member of the senate has one vote. By a two-thirds vote of the members present the rules and regulations governing the deliberations may be amended. Regular meetings are held once a week, but special sessions may be convened whenever occasion arises. The officers of the senate are a president, vice president, treasurer, secretary, and sergeant at arms, all elected by the membership for a term of one year.

The members of the house of representatives are elected from among those employees of the company who have been in continu-

ous service for at least six months. This qualification is at present relatively unimportant for the reason that four-fifths of the employees of this company have been in its service more than six months. The representatives are elected by popular vote of the employees, in the ratio of 1 representative for every 15 employees, but each department, however small, has at least one representative. Each member of the house has 1 vote. The officers of this organization include a president, vice president, treasurer, secretary, and sergeant at arms, all elected by popular vote. Elections are held regularly twice a year, during the first weeks of February and August. Regular meetings of the employees' representatives are held every other Tuesday and special meetings may be called whenever necessary. The rules of procedure of the body may be amended by a two-thirds vote of its membership.

The cabinet consists of members of the executive board of the company, and has the final word in all matters referred to it by the joint action of the house and senate. Members of the cabinet may attend the meetings of either the senate or the house, but have no power to vote. Unless especially requested, however, members of the firm do not, as a rule, attend any of the sessions of the representative organizations of the employees.

The jurisdiction of the house and senate is unlimited. These bodies are privileged to discuss and act upon any proposition that may affect the interests of the employees and the firm. A proposition may originate in either house, but must also be referred to the other house for discussion and action there. In case of disagreement in the decisions reached the disputed points are referred to a joint conference committee consisting of an equal number of representatives of both organizations. The conference committee endeavors to reach some mutually satisfactory compromise, and usually succeeds. The compromise is then submitted to the cabinet for approval. As a matter of actual practice, propositions agreed to by both houses in the manner indicated above are usually assented to by the firm.

Under the provisions of the scheme there are a number of standing committees consisting of an equal number of representatives from both organizations. The most important of these are the betterment committee, which hears complaints and adjusts grievances, and the welfare committee, which deals with matters affecting the general comfort and welfare of the employees. There are many other committees, mostly of minor importance, such as a committee on appropriations, in charge of expending the funds annually appropriated by the company¹ for entertainments, athletics, etc., a program com-

¹ For the purpose of maintaining the social activities of its employees the company sets aside annually about \$800. This amount does not include the salary of the so-called "professional" secretary who is an employee of the company having in charge the executive and clerical work incidental to the operation of the bargaining scheme, such as keeping the record of the proceedings, calling meetings, etc.

mittee for entertainments, and a fire-drill committee. New committees are created whenever necessity arises for handling special questions.

A discharged employee has the right to refer his case to the betterment committee. If the decision of the betterment committee is not satisfactory to the employee, he may file a notice to that effect with the "professional" secretary of the house of representatives and the senate. The latter two organizations then select a board of review consisting of five persons, two selected by the senate, two by the house, and the fifth by mutual consent of both organizations. The majority decision of the board is final. The board has full power over discharge cases and may reinstate any employee who, in its opinion, was wrongfully discharged. The company, however, specifically reserves the right to lay off employees on account of lack of work, and a lay-off, even when in effect equivalent to a discharge, is not subject to the jurisdiction of the board.

By a special resolution adopted April 17, 1918, a permanent wage committee was created. This committee is composed of one member selected by the employees of each factory department and one employee chosen to represent the office and clerical force of the firm. The functions of this committee, as defined in the resolution, are as follows: (1) To recommend and pass upon general changes in wages; (2) to suggest and pass upon minimum and maximum rates to be paid for the various operations according to skill involved, length of service, and steadiness in attendance; (3) to sit with the factory planning board, composed of the superintendents, for the purpose of passing upon individual increases in wages; and (4) to receive complaints of individuals to whom increases were denied.

ACTUAL WORKINGS OF PLAN.

That this collective bargaining scheme has been of benefit to the employees may be seen from the list presented below, enumerating some of the more important matters dealt with and adjusted collectively, as well as from the brief account given later of the changes in wages during the last 18 months.

Ordered that raw materials be sold to employees at cost plus 15 per cent.....	Apr. 23, 1915
Ruled that no freight be carried on elevators between 7.15 and 7.45 a. m. and 11.30 a. m. to 12.15 p. m.....	Feb. 22, 1916
Ordered that 1 week's vacation with pay be granted to those in service 1 year or longer.....	Apr. 25, 1916
Introduced a 48-hour week.....	June 16, 1916
Ordered that 2 weeks' vacation with pay be granted to those in service more than 3 years.....	May 20, 1916
Decided that, whenever possible, promotions be made from rank and file.....	Sept. 19, 1916

Employed a "professional" secretary for the house and senate.....	Jan. 10, 1917
Granted increases in wages of 5 and 10 per cent.....	Jan. 23, 1917
Formulated rules of procedure to govern a board of review to handle discharges.....	Jan. 10, 1917
Decided that the positions of enlisted men be held open for them....	May 29, 1917
Granted an increase in wages of 5 per cent.....	June 20, 1917
Agreed to readjust wages in accordance with the changes in the cost of living.....	Jan. 23, 1918
Created a permanent committee to deal with wage questions.....	Apr. 17, 1918

In these days of advancing prices the attention of employees is centered on the question of wages. Since the beginning of 1917 the question of wages has been the subject of frequent discussions of the representative bodies. The procedure of arriving at wage changes was somewhat as follows: The workers, feeling the need of larger incomes, usually called a meeting of their representatives and by resolution instructed them to make certain demands for increases in wages. The matter would then be taken up at the next meeting of the house for the purpose of arriving at a definite figure. As a rule, the house, being more familiar with the general conditions of business, modified considerably the demands of its constituents. The figure agreed upon by the house would then be referred to the senate. The latter, after detailed discussions and informal conferences with the management, then arrived at some decision. In cases of disagreement the matter went through the regular procedure of reference to a joint conference committee and then to the firm which, in the great majority of instances, approved the compromise arrived at by the joint conference committee.

On January 29, 1917, an increase of 10 per cent was granted to employees with a continuous record of service of one year or more, and of 5 per cent to those in service less than one year. On June 20, 1917, an additional all-round increase of 5 per cent was given.

In the early part of December, 1917, the representatives of the employees, in view of the still mounting cost of living, submitted a demand for an additional all-round wage increase of 10 per cent.¹ The matter was referred to the senate, where it was discussed at great length. The opinion prevailing in the senate was "that inasmuch as it would not be right to ever cut wages, it might be

¹ The following is an extract from the proceedings of the meeting of the house of representatives held on Dec. 4, 1917, at which the demand for an increase in wages was decided upon:

Mr. K, of the cutting department, then made a motion that the firm be asked to grant a 20 per cent increase in wages to all employees because of the great increase in the cost of living.

This did not meet with favor from some other members, and Mr. S, then made a motion to amend it to read 10 per cent instead of 20 per cent. The amendment was carried.

In the discussion which followed, house members showed that living expenses have gone up since last June; that they believed that the firm was square and therefore they wanted to be square too; that they believed that, with the increased cost of material and overhead expenses, 20 per cent was too much to ask for in fairness; but that, because of conditions at present, they considered it fair to ask that the firm grant a 10 per cent increase.

This motion to ask for 10 per cent increase was carried with but 3 voting against it.

unwise to grant increase after increase, as the cost of living rises, if such raises are made permanent, * * * but that temporary raises as long as this high cost of living remains on the same level, or goes up, are necessary." In view of the difference in the viewpoints of the house and the senate the subject was referred to a joint committee which was instructed to work out some equitable method for the adjustment of wages to the rising cost of living. The action of this committee was announced on January 9, 1918. It suggested that periodic (monthly) changes in wages be made in accordance with the changes in the prices of commodities. A resolution to this effect was passed and subsequently approved by the firm. In accordance with this resolution, the company on January 23 made the following announcement:

The company believes there is justice in the suggestion that the wages of the employees be readjusted in accordance with the higher cost of living. It wishes to meet the suggestion by paying a separate high-cost-of-living envelope to each employee once a month. This envelope will contain an amount of money which will represent the average increased cost of living to each employee.

This amount will be figured by using Bradstreet's index figures as a basis. These index figures represent an average of the prices of 96 articles used in everyday life. As the prices change, these index figures change, so that they are a fair measure of the increase in the cost of living. These figures have been used by Bradstreet's since 1904 and are recognized all over the United States as being impartial and reliable.

As these monthly index figures are not available until the 15th of the month the index figures of November the 1st will be taken instead of December 1st, and this November the 1st figure will be continued to be used as a basis. Therefore, the high-cost-of-living envelope for December will be the percentage of difference between the index figures of November the 1st and December the 1st. The high-cost-of-living envelope for January will be the difference between November the 1st and January 1st, and so on. This payment will be made on the second Tuesday of every month.

The company does not obligate itself to continue this payment indefinitely, and as soon as circumstances arise that make this payment unnecessary or impossible to maintain the employees will be advised through the house of representatives of this fact.

This new wage arrangement was to be retroactive to December, 1917, when the wage demand of the employees was presented. Since the date of the announcement, the following percentages of the regular earnings of the employees have been paid as cost-of-living bonuses: For the month of December, 1917, 5 per cent; January, February, and March, 1918, 6 per cent; and April, 1918, 8 per cent.

EMPLOYMENT AND UNEMPLOYMENT.

WORK OF PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES AND OF PROVINCIAL EMPLOYMENT OFFICES IN CANADA.

Data are presented in the following table showing the operations of the public employment offices for the month of June, 1918, and in cases where figures are available, for the corresponding month in 1917. Figures are given from 180 public employment offices in 41 States and the District of Columbia—Federal employment offices in 30 States and the District of Columbia, Federal-State employment offices in 11 States, Federal-State-county-municipal employment offices in 4 States, a Federal-State-municipal employment office in 1 State, a Federal-municipal employment office in 1 State, State employment offices in 11 States, State-municipal employment offices in 2 States, and municipal employment offices in 6 States. Figures from 2 Canadian employment offices are also given.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918.

UNITED STATES.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.
ALABAMA.												
Mobile (Federal).....	151		1,138		121	1,654	(*)	(*)		572		572
ARIZONA.												
Phoenix (Federal- State-county-municip- al).....	430		785			383		362		710		671
Yuma (Federal).....	75		428			1,129		(*)		102		55
Total.....										812		726
ARKANSAS.												
Fort Smith (Federal).....	28		2,905			1,383		(*)		383		383
Helena (Federal).....	52		500			170		(*)		35		35
Jonesboro (Federal).....	107		838			1,440		(*)		350		350
Little Rock (Federal).....	501		6,986			4,609		(*)		4,272		4,232
North Little Rock (Federal).....	5		54			1,139		(*)		116		111
Pine Bluff (Federal).....	66		3,738			1,645		(*)		331		218
Texarkana (Federal).....	14		342			1,291		(*)		199		188
Total.....										5,686		5,517

¹ Number applying for work.

² Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registra- tions.		Renewals.					
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.
CALIFORNIA.												
Bakersfield (Federal).....		218		513		1 619		(2)		507		379
El Centro (Federal).....		178		380		1 374		(2)		339		260
Fresno (State).....		596		1,069		534		(2)		1,175		1,135
Hayward (Federal).....		(2)		33		1 60		(2)		38		20
Los Angeles (Federal- State-municipal).....	3,787	4,970	8,257	7,880	2,558	3,618	(2)	2,343	7,138	6,865	7,274	5,961
Oakland (Federal- State).....	1,211	1,969	2,161	3,777	588	1,967	(2)	(2)	1,715	3,773	1,445	3,069
Sacramento (State).....	597	729	1,652	2,296	713	721	(2)	(2)	1,239	1,426	1,215	1,298
San Francisco (State).....	2,091	3,408	4,898	7,582	1,845	(2)	(2)	4,595	7,117	3,657	5,637	674
San Jose (State).....		779		1,048		473		(2)		962		468
Santa Rosa (Federal).....		102		679		1 468		(2)		408		468
Total.....									14,687	22,670	13,591	18,921
COLORADO.												
Pueblo (Federal-State).....	(2)	(2)	778	(2)	1 710	(2)	(2)	(2)	700	(2)	700	513
CONNECTICUT.												
Bridgeport (Federal- State).....	(2)	(2)	651	1,092	1 833	1 1,330	(2)	(2)	(2)	(2)	611	917
Hartford (State).....	(2)	(2)	1,324	1,168	11,574	11,182	(2)	(2)	(2)	(2)	1,084	855
New Haven (State).....	(2)	(2)	956	875	11,211	1 923	(2)	(2)	(2)	(2)	820	734
Norwich (State).....	(2)	(2)	344	347	1 422	1 410	(2)	(2)	(2)	(2)	329	343
Waterbury (State).....	(2)	(2)	181	328	1 277	1 466	(2)	(2)	(2)	(2)	139	294
Total.....									(2)	(2)	2,983	3,143
DELAWARE.												
Wilmington (Federal).....	(2)	112	(2)	3,525	(2)	1 1,487	(2)	(2)	(2)	1,364	(2)	1,310
DISTRICT OF COLUMBIA.												
Washington (Federal).....	94	303	221	2,295	1 391	3,685	(2)	(2)	277	3,739	271	3,538
FLORIDA.												
Tampa (Federal).....		10		(2)		(2)		(2)		497		491
GEORGIA.												
Atlanta (Federal- State).....		209		3,295		1 1,965		(2)		1,896		(2)
Columbus (Federal).....		17		147		1 272		(2)		178		65
Macon (Federal).....		96		356		1 133		(2)		86		86
Savannah (Federal).....	2	15	2,000	325	1 99	1 535	(2)	(2)	31	343	22	222
Total.....									31	2,503	22	373
IDAHO.												
Boise (municipal).....	150	(2)	219	(2)	1 169	1 135	(2)	(2)	169	135	133	135
Moscow (Federal).....	11	8	11	357	1 11	1 19	(2)	(2)	11	14	11	14
St. Anthony (Federal).....		135		606		1 573		(2)		443		294
Total.....									180	592	144	443
ILLINOIS.												
Alton (Federal).....		30		641		1 267		(2)		215		132
Aurora (Federal).....		234		728		1 776		(2)		577		462
Bloomington (Federal- State).....		259		286		308		13		270		216
Cairo (Federal).....		46		616		1 416		(2)		392		256

* Number applying for work.

* Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	New registrations.		Renewals.		June, 1917.	June, 1918.	June, 1917.	June, 1918.
					June, 1917.	June, 1918.	June, 1917.	June, 1918.				
ILLINOIS—concluded.												
Chicago (Federal-State)	5,253	5,822	16,336	27,433	16,261	11,089	1,088	7,082	15,505	16,330	12,764	13,181
Danville (Federal-State)		153		914		319		6		242		182
Decatur (Federal-State)		222		377		246		67		217		182
East St. Louis (Federal-State)	484	931	1,176	1,366	479	370	273	637	730	959	712	924
Galesburg (Federal)		88		567		221		(?)		167		154
Joliet (Federal)		228		664		716		(?)		558		534
Peoria (State)	838	859	1,287	1,365	188	240	837	864	1,007	1,096	997	1,075
Rockford (Federal-State)	736	878	1,211	1,374	823	978	298	322	924	1,096	860	977
Rock Island - Moline (Federal-State)	513	1,319	1,181	3,567	538	1,234	322	1,180	760	2,377	701	2,282
Springfield (State)	450	595	571	983	193	293	355	494	490	727	465	647
Quincy (Federal)		98		1,916		479		(?)		266		117
Total									19,416	25,489	16,499	21,321
INDIANA.												
Fort Wayne (State)	252	498	546	1,295	82	(?)	451	(?)	569	778	533	778
South Bend (State)	163	452	577	1,345	600	106	44	191	569	297	447	263
Total									1,138	1,075	980	1,041
IOWA.												
Council Bluffs (Federal-State)		142		508		1,261		(?)		187		119
Davenport (Federal-State)		230		735		360		108		523		381
Des Moines (Federal-State - county - municipal)	82	578	247	1,466	129	1,111	18	360	168	1,271	107	956
Ottumwa (Federal-State)		284		480		1,409		(?)		400		329
Sioux City (Federal-State)		746		1,531		1,088		(?)		947		781
Waterloo (Federal-State)		375		561		1,674		(?)		527		447
Total									168	3,864	107	3,013
KANSAS.												
Hutchinson (Federal)		168		3,818		1,607		(?)		1,444		(?)
Topeka (Federal-State)	110	366	130	1,233	147	677	(?)	10	128	626	124	483
Total									128	2,070	124	483
KENTUCKY.												
Louisville (State)	191	165	186	149	1,254	1,175	(?)	(?)	186	149	186	149
LOUISIANA.												
Alexandria (Federal)		(?)		(?)		108		(?)		(?)		127
Shreveport (Federal)		27		225		144		(?)		35		34
Total										35		161
MARYLAND.												
Baltimore (Federal)	55	493	309	7,763	1,293	8,750	(?)	(?)	219	6,150	219	7,158
Salisbury (Federal)		24		499		1,365		(?)		365		365
Total									219	6,515	219	7,523

1 Number applying for work.

2 Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	New registrations.		Renewals.		June, 1917.	June, 1918.	June, 1917.	June, 1918.
					June, 1917.	June, 1918.	June, 1917.	June, 1918.				
MASSACHUSETTS.												
Boston (State).....	2,297	2,202	2,788	2,569	1,842	1,613	(2)	(2)	3,263	3,498	1,790	1,747
Springfield (State).....	1,097	1,015	1,547	1,816	1,604	1,680	(2)	(2)	1,694	1,793	1,142	1,057
Worcester (State).....	1,081	979	1,370	1,254	1,643	1,639	(2)	(2)	1,582	1,417	871	786
Total.....									7,539	8,708	3,803	3,590
MICHIGAN.												
Battle Creek (State)...	56	180	106	463	168	298	(2)	113	64	411	64	411
Bay City (State).....	47	64	142	231	197	94	(2)	45	75	120	75	120
Detroit (Federal-State)	1,329	1,203	6,690	(2)	16,643	6,661	(2)	137	6,643	6,747	6,643	6,747
Flint (State).....	275	252	675	399	1,693	356	(2)	80	660	376	660	339
Grand Rapids (State)...	321	798	796	1,713	1,794	1,365	(2)	297	780	1,576	780	1,498
Jackson (State).....	416	606	908	606	1,930	407	(2)	170	893	540	887	493
Kalamazoo (State).....	168	350	332	614	1,368	572	(2)	64	368	453	368	401
Lansing (State).....	37	143	146	822	1,160	693	(2)	88	141	763	141	763
Muskegon (State).....	59	40	162	692	1,161	162	(2)	24	144	174	131	160
Saginaw (State).....	134	174	737	574	1,564	263	(2)	51	564	314	564	314
Total.....									10,332	11,504	10,313	11,246
MINNESOTA.												
Duluth (State).....	(2)	1,571	(2)	1,571	(2)	879	(2)	(2)	(2)	1,167	1,441	1,068
Minneapolis (State)...	(2)	(2)	2,679	2,363	12,079	2,182	(2)	(2)	2,050	1,963	1,623	1,657
St. Paul (State).....	(2)	855	(2)	855	(2)	817	(2)	(2)	(2)	823	1,135	814
Total.....									2,050	3,953	4,199	3,539
MISSISSIPPI.												
Meridian (Federal).....		33		86		1,537		(2)		427		415
MISSOURI.												
Hannibal (Federal).....		7		31		187		(2)		69		27
Kansas City (Federal-State).....	1,170	1,809	2,806	9,675	764	9,128	3,313	(2)	4,077	7,524	1,934	6,910
St. Joseph (Federal)...		324		2,263		1,768		(2)		1,766		1,677
St. Louis (Federal-State).....	318	537	1,819	11,843	918	16,061	111	(2)	826	5,927	823	5,765
Total.....									4,903	15,286	2,757	14,379
MONTANA.												
Butte (municipal).....	(2)	(2)	579	605	109	1,569	(2)	(2)	(2)	(2)	485	475
Helena (Federal).....		53	1	130	110	1,109	(2)	(2)	4	94		89
Missoula (Federal).....		39		97		1,107		(2)		80		80
Total.....									4	174	485	644
NEBRASKA.												
Lincoln (Federal).....		408		1,153		1,644		(2)		562		516
Omaha (Federal-State-county-municipal).....	891	1,094	1,550	3,849	889	1,623	480	177	1,220	1,351	964	3,713
Total.....									1,220	1,913	964	4,229
NEW JERSEY.												
Camden (Federal).....		180		2,814		2,802		(2)		2,733		2,505
Jersey City (Federal-State).....	(2)	154	(2)	5,842	(2)	11,225	(2)	(2)	(2)	1,033		930
Orange (Federal-State)...	(2)	339	(2)	666	(2)	1,676	(2)	(2)	(2)	386	(2)	343
Paterson (Federal).....		329		1,942		14,742		(2)		1,865		1,071
Trenton (Federal).....		733		(2)		(2)		(2)		473		412
Total.....									(2)	6,490	(2)	5,261

1 Number applying for work.

2 Not reported.

3 Number of offers of positions.

4 Including 133 harvest hands; and railway branch placed 2,294 laborers.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.		
					New registrations.		Renewals.						
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	
NEW MEXICO.													
Roswell (Federal).....		21		60		1 121		(²)			50		28
NEW YORK.													
Albany (State).....	688	726	1,073	1,351	776	936	254	289	1,089	1,125	687	646	
Buffalo (Federal).....	1,308	490	2,110	6,151	1,830	11,674	(²)	(²)	2,547	1,674	(²)	1,636	
Buffalo (State).....	1,439	2,142	2,069	12,370	1,629	2,734	165	181	2,492	3,834	1,828	3,063	
New York City (Federal).....	3,925	1,633	7,022	32,403	18,272	122,947	(²)	(²)	5,542	20,946	5,596	15,778	
New York City (State).....	1,938	9,941	2,585	4,668	1,692	2,529	820	1,012	2,663	4,272	1,580	2,784	
New York City (municipal).....	2,559	1,847	2,838	2,169	2,655	1,354	2,210	1,590	3,728	2,592	2,161	1,789	
Rochester (State).....	1,653	1,876	2,312	3,333	1,104	2,192	586	627	2,107	2,545	1,163	1,332	
Syracuse (State).....	1,446	2,293	2,048	2,488	1,004	1,430	281	300	1,780	1,769	1,339	1,472	
Total.....									21,948	38,757	14,354	28,500	
NORTH CAROLINA.													
Charlotte (Federal).....		(²)		486		173		(²)			219		213
Raleigh (Federal).....		22		275		1,128		(²)			29		12
Total.....										248			225
* NORTH DAKOTA.													
Fargo (Federal).....		362		667		1 654		(²)			594		549
OHIO.													
Akron (State-municipal).....	(²)	(²)	2,597	2,902	906	1,082	2,150	1,764	2,456	2,404	2,174	1,954	
Athens (State-municipal).....	(²)	(²)	88	37	6	14	3	27	7	33	7	31	
Canton (State-municipal).....	(²)	(²)	524	629	735	621	162	195	532	606	252	379	
Chillicothe (State-municipal).....	(²)	(²)	1,019	456	1,116	361	123	200	717	424	596	366	
Cincinnati (State-municipal).....	(²)	(²)	2,560	3,092	1,972	2,471	3,284	2,281	2,512	2,729	1,744	2,262	
Cleveland (State-municipal).....	(²)	(²)	7,971	8,601	3,598	4,348	8,210	7,349	7,371	8,173	5,968	6,511	
Columbus (State-municipal).....	(²)	(²)	2,971	4,323	1,181	1,656	2,930	3,228	2,743	3,676	2,285	2,954	
Dayton (State-municipal).....	(²)	(²)	1,573	2,448	1,143	1,656	1,485	1,238	1,446	2,331	1,222	2,316	
Hamilton (State-municipal).....	(²)	(²)	118	247	138	110	53	19	106	125	65	102	
Lima (State-municipal).....	(²)	(²)	458	778	42	668	123	326	388	777	346	670	
Mansfield (State-municipal).....	(²)	(²)	107	723	119	368	43	149	80	453	42	325	
Marietta (State-municipal).....	(²)	(²)	233	248	217	154	75	84	230	203	159	147	
Marion (State-municipal).....	(²)	(²)	392	425	376	399	167	166	343	452	224	374	
Portsmouth (State-municipal).....	(²)	(²)	361	856	343	245	102	485	241	633	116	427	
Sandusky (State-municipal).....		(²)		348		188		46		162		115	
Springfield (State-municipal).....	(²)	(²)	511	304	444	288	146	326	289	358	137	267	
Steuubenville (State-municipal).....	(²)	(²)	509	677	396	370	123	292	472	585	378	426	
Tiffin (State-municipal).....	(²)	(²)	300	631	202	345	80	127	186	433	162	379	
Toledo (State-municipal).....	(²)	(²)	3,827	3,432	1,632	1,378	3,221	2,841	3,287	3,046	2,778	2,564	
Washington C. H. (State-municipal).....	(²)	(²)	193	100	251	117	70	20	169	85	148	57	

¹ Number applying for work.² Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	New registrations.		Renewals.		June, 1917.	June, 1918.	June, 1917.	June, 1918.
					June, 1917.	June, 1918.	June, 1917.	June, 1918.				
OHIO—concluded.												
Youngstown (State-municipal).....	(1)	(1)	1,781	2,007	1,050	957	1,272	1,187	1,697	1,707	1,503	1,437
Zanesville (State-municipal).....	(1)	(1)	188	250	201	164	78	133	192	254	83	186
Total.....									25,464	29,649	20,389	24,248
OKLAHOMA.												
Enid (Federal-State).....	233	422	1,381	2,243	¹ 1,283	² 2,303	(1)	(1)	1,262	2,177	1,256	2,173
Muskogee (Federal-State).....	333	151	552	312	² 327	² 201	(1)	(1)	322	173	315	115
Oklahoma City (Federal-State).....	378	459	1,077	1,258	² 699	¹ 1,036	(1)	(1)	654	942	640	627
Tulsa (Federal-State).....	998	428	2,022	853	¹ 1,376	² 814	(1)	(1)	1,374	737	1,361	633
Total.....									3,642	4,029	3,572	3,548
OREGON.												
Eugene (Federal).....		16		69		50		(1)		60		60
PENNSYLVANIA.												
Altoona (State).....	11	1,239	132	7,116	96	² 2,339	17	(1)	99	1,428	85	1,395
Eric (State).....		739		1,412		634		196		660		602
Harrisburg (State).....	179	237	281	1,330	222	860	184	113	317	774	298	741
Johnstown (State).....	76	341	132	1,561	96	² 368	17	(1)	99	333	85	325
New Castle (State).....		198		762		² 206		(1)		190		190
New Kensington (State).....		302		549		211		(1)		219		219
Philadelphia (Federal).....	357	373	1,665	10,429	² 827	¹ 14,918	(1)	(1)	718	12,938	524	10,864
Philadelphia (State).....	506	4,432	1,220	7,133	1,251	7,713	598	191	1,245	6,686	1,072	6,249
Pittsburgh (Federal).....	65	132	1,250	5,065	² 404	² 912	(1)	(1)	269	763	195	503
Pittsburgh (State).....	102	1,312	1,440	8,481	528	3,642	123	264	571	3,363	508	3,279
Scranton (State).....		57		8,390		124		8		43		43
Williamsport (Federal).....		(1)		3,382		238		(1)		87		52
Williamsport (State).....		95		305		122		14		113		85
York (State).....		104		340		² 223		(1)		183		182
Total.....									3,318	27,786	2,767	24,719
RHODE ISLAND.												
Providence (State).....	187	211	213	227	146	237	124	59	(1)	227	213	227
SOUTH CAROLINA.												
Charleston (Federal).....	1	158	1,200	6,635	197	² 713	(1)	(1)	368	713	368	713
TENNESSEE.												
Chattanooga (Federal).....		124		2,131		² 885		(1)		775		544
Clarksville (Federal).....		14		32		² 11		(1)		5		4
Columbia (Federal).....		23		210		² 37		(1)		27		18
Jackson (Federal).....		23		151		² 89		(1)		26		24
Memphis (Federal).....	4	176	8	15,905	² 62	² 2,864	(1)	(1)	10	2,574	9	2,454
Total.....									10	3,407	9	3,044
TEXAS.												
Beaumont (Federal).....		7		162		² 50		(1)		27		20
Brownsville (Federal).....		27		1,643		² 138		(1)		107		104
Dallas (municipal).....	170	141	316	1,470	³ 258	⁴ 1,813	15	10	373	1,145	307	1,044
El Paso (Federal).....		76		1,404		² 388		(1)		312		304
Fort Worth (Federal).....		42		1,812		² 297		(1)		210		240
Laredo (Federal).....		54		1,418		² 870		(1)		861		856
Orange (Federal).....		35		260		² 135		(1)		102		102
San Antonio (Federal).....		(1)		4,934		² 4,553		(1)		3,961		3,125
Waco (Federal).....		3		44		² 132		(1)		45		38
Total.....									373	6,770	307	5,833

¹ Not reported. ² Number applying for work. ³ Includes 84 transients. ⁴ Includes 140 transients.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JUNE, 1917 AND 1918.—Concluded.

UNITED STATES—Concluded.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.
VIRGINIA.												
Alexandria (Federal).....		68		279		1 162		(2)		128		117
Lynchburg (Federal).....		60		935		1 451		(2)		420		351
Roanoke (Federal).....		19		554		1 46		(2)		36		15
Richmond (municipal).....	297	155	449	187	545	236	(2)	(2)	577	248	225	70
Total.....									577	832	225	533
WASHINGTON.												
Bellingham (Federal-municipal).....	136	116	279	3 687	1 262	(2)	(2)	(2)	230	98	198	89
Everett (Federal).....	2	11	40	84	1 38	1 66	(2)	(2)	19	23	18	23
Everett (municipal).....	(2)	240	432	(2)	(2)	(2)	(2)	(2)	(2)	217	325	168
Seattle (municipal).....	4,224	5,015	7,754	8,871	(2)	(2)	(2)	(2)	7,890	9,055	7,177	8,166
Total.....									8,139	9,393	7,718	8,446
WISCONSIN.												
Green Bay (Federal).....		199		473		1 276		(2)		228		122
La Crosse (State-municipal).....	131	98	305	163	1 274	1 186	(2)	(2)	179	105	134	78
Milwaukee (Federal-State-county-municipal).....	2,112	2,099	4,289	4,803	4,064	3,525	(2)	(2)	4,136	3,412	2,864	2,349
Oshkosh (State-municipal).....	136	141	187	213	1 231	1 167	(2)	(2)	151	107	110	88
Superior (State-municipal).....	496	330	1,363	1,691	1,032	1,562	(2)	(2)	1,183	1,623	667	785
Total.....									5,649	5,475	3,775	3,422
WYOMING.												
Cheyenne (Federal).....		55		2,129		1 260		(2)		260		233
Grand total.....									132,666	252,337	112,044	216,919

CANADA.

QUEBEC.												
	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.	June, 1917.	June, 1918.
Montreal (provincial).....	288	219	843	484	404	149	(2)	(2)	480	297	410	240
Quebec (provincial).....	(2)	38	(2)	208	(2)	1 179	(2)	(2)	(2)	173	(2)	158
Total.....									480	470	410	398

¹ Number applying for work.² Not reported.³ Including 445 berry pickers.

EMPLOYMENT IN SELECTED INDUSTRIES IN JUNE, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in June, 1918, from representative establishments in 13 manufacturing industries. Comparing the figures of June of this year with those of identical establishments for June, 1917, it appears that in 5 industries there was an increase in the number of people employed and in 8 a decrease. Automobile manufacturing shows an increase of 5.4 per cent and woolen an increase of 2.2 per cent. Decreases of 8.9 per cent, 6 per cent, and

5.6 per cent are shown in silk, boots and shoes, and cotton finishing, respectively.

Each of the 13 industries shows an increase in the total amount of pay roll for June, 1918, as compared with June, 1917. The most important changes are 39.9 per cent in leather manufacturing and 29.1 per cent in both iron and steel and car building and repairing. The remaining industries show increases ranging from 13.3 per cent to 27.4 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JUNE, 1917, AND JUNE, 1918.

Industry.	Establishments reporting for June both years.	Period of pay roll.	Number on pay roll in June—		Per cent of increase (+) or decrease (-).	Amount of pay roll in June—		Per cent of increase (+) or decrease (-).
			1917	1918		1917	1918	
Automobile manufacturing.	47	1 week..	104,024	109,669	+5.4	\$2,337,951	\$2,858,794	+22.3
Boots and shoes.....	70	do.....	56,177	52,801	-6.0	823,747	933,275	+13.3
Car building and repairing.	28	½ month.	37,932	36,262	-4.4	1,386,617	1,790,310	+29.1
Cigar manufacturing.....	60	1 week..	20,258	19,456	-4.0	255,294	293,515	+15.0
Men's ready-made clothing.	34	do.....	24,531	24,306	-9.0	395,138	472,297	+19.5
Cotton finishing.....	16	do.....	12,503	11,809	-5.6	186,841	224,020	+19.9
Cotton manufacturing.....	56	do.....	53,299	51,069	-4.2	615,963	780,608	+26.7
Hosiery and underwear.....	53	do.....	29,458	29,019	-1.5	331,511	415,108	+25.2
Iron and steel.....	93	½ month.	173,728	175,279	+9.9	8,063,202	10,410,078	+29.1
Leather manufacturing.....	34	1 week..	15,268	15,344	+5.5	231,037	323,185	+39.9
Paper making.....	52	do.....	25,585	25,622	+1.1	408,750	502,732	+23.0
Silk.....	38	2 weeks.	13,218	12,037	-8.9	292,112	332,194	+13.7
Woolen.....	45	1 week..	41,904	42,811	+2.2	613,232	781,233	+27.4

*The table below shows the number of persons actually working on the last full day of the reported pay period in June, 1917, and June, 1918. The number of establishments reporting on this question is small and this fact should be taken into consideration when studying these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JUNE, 1917, AND JUNE, 1918.

Industry.	Establishments reporting for June, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in June—		Per cent of increase (+) or decrease (-).
			1917	1918	
Automobile manufacturing.....	27	1 week....	72,023	71,884	-0.2
Boots and shoes.....	24	do.....	12,454	11,328	-9.0
Car building and repairing.....	27	½ month..	32,534	31,237	-4.0
Cigar manufacturing.....	18	1 week....	4,261	3,819	-10.4
Men's ready-made clothing.....	6	do.....	11,932	10,811	-9.4
Cotton finishing.....	12	do.....	10,062	9,677	-3.8
Cotton manufacturing.....	36	do.....	27,890	26,159	-6.2
Hosiery and underwear.....	15	do.....	11,981	11,430	-4.6
Iron and steel.....	70	½ month..	135,773	135,884	+0.1
Leather manufacturing.....	16	1 week....	9,175	9,808	+6.9
Paper making.....	16	do.....	5,953	6,295	+5.7
Silk.....	22	2 weeks..	8,680	7,902	-9.0
Woolen.....	36	1 week....	33,769	34,793	+3.0

The figures in the next table show that in 7 industries there were more persons on the pay roll in June, 1918, than in May, 1918; in 5 there was a reduction of force; and in 1, cotton manufacturing, no change. An increase of 7.3 per cent in cigar manufacturing was the greatest increase, and car building and repairing shows the largest decrease—5.9 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MAY, 1918, AND JUNE, 1918.

Industry.	Estab- lish- ments report- ing for May and June.	Period of pay roll.	Number on pay roll in—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in—		Per cent of in- crease (+) or de- crease (-).
			May, 1918.	June, 1918.		May, 1918.	June, 1918.	
Automobile manufacturing.	45	1 week..	103,303	105,658	+2.3	\$2,715,808	\$2,759,287	+ 1.6
Boots and shoes.....	69	...do....	56,392	56,088	- .5	969,737	1,012,486	+ 4.4
Car building and repairing.	28	½ month	38,520	36,262	-5.9	1,941,544	1,790,310	- 7.8
Cigar manufacturing.	58	1 week..	17,853	19,157	+7.3	251,236	287,329	+14.4
Men's ready-made clothing.	36	...do....	24,487	24,604	+ .5	473,137	480,478	+ 1.6
Cotton finishing.....	17	...do....	11,940	12,005	+ .5	215,355	227,591	+ 5.7
Cotton manufacturing.....	53	...do....	50,462	50,462	(¹)	748,298	772,359	+ 3.2
Hosiery and underwear.	53	...do....	29,049	29,019	- .1	418,675	415,108	- .9
Iron and steel.....	95	½ month.	175,311	176,145	+ .5	10,514,405	10,455,072	- .6
Leather manufacturing.	34	1 week..	14,882	15,344	+3.1	294,657	323,185	+ 9.7
Paper making.....	50	...do....	23,914	23,939	+ .1	454,398	472,567	+ 4.0
Silk.....	38	2 weeks.	11,465	11,382	- .7	322,434	316,379	- 1.9
Woolen.....	47	1 week..	43,257	43,141	- .3	787,691	786,989	- .1

¹ No change.

Of the 13 industries reporting, 8 show increases and 5 decreases in the total amount of pay roll in June, 1918, as compared with May, 1918. A marked increase—14.4 per cent—is shown in cigar manufacturing, which is due mainly to a settlement of a number of strikes occurring in May, 1918. Leather manufacturing, cotton finishing, and boots and shoes show percentage increases of 9.7, 5.7, and 4.4, respectively. Car building and repairing shows a decrease of 7.8 per cent.

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for May and June, 1918. The small number of establishments represented should be noted when using these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN MAY, 1918, AND JUNE, 1918.

Industry.	Establishments reporting for May and June.	Period of pay roll.	Number actually working on last full day of reported pay period—		Per cent of increase (+) or decrease (-).
			May, 1918.	June, 1918.	
Automobile manufacturing.....	25	1 week....	68,600	71,509	+4.2
Boots and shoes.....	30	...do.....	12,002	11,778	-1.9
Car building and repairing.....	27	$\frac{1}{2}$ month....	33,764	31,240	-7.5
Cigar manufacturing.....	19	1 week....	3,559	3,806	+6.9
Men's ready-made clothing.....	8	...do.....	10,910	10,850	-.6
Cotton finishing.....	13	...do.....	9,741	9,854	+1.3
Cotton manufacturing.....	36	...do.....	26,226	26,159	-.3
Hosiery and underwear.....	16	...do.....	11,527	11,312	-1.9
Iron and steel.....	74	$\frac{1}{2}$ month....	139,918	139,169	-.5
Leather manufacturing.....	17	1 week....	10,573	10,823	+2.4
Paper making.....	14	...do.....	6,204	6,075	-2.1
Silk.....	22	2 weeks....	7,056	7,190	+1.9
Woolen.....	38	1 week....	35,963	35,497	-1.3

CHANGES IN WAGE RATES.

During the period May 15 to June 15, 1918, there were establishments in each of the 13 industries which reported increases in wage rates and in one—iron and steel—a reduction. Of the establishments reporting, many did not answer the inquiry relative to this item, but in such cases it is not likely that changes were made.

Automobile manufacturing.—An increase of 25 per cent was granted to approximately 78 per cent of the force in one plant. About 20 per cent of the workers in one factory were granted an increase ranging from 10 to 15 per cent. Two other plants reported an increase of 10 per cent, received by 25 per cent of the employees in one establishment; the other plant failed to give the number of employees affected. An average increase of 8 per cent, affecting approximately 25 per cent of the force, was granted by one plant; and 12 per cent of the employees in another plant received an increase of 8 per cent. In one establishment the productive average hourly rate was increased 0.0382 cent; and an increase of 10 to 15 cents an hour was granted in one factory, but no data was given as to the number of employees receiving the increase. The whole force in one plant received an increase of $1\frac{1}{2}$ per cent. One establishment reported an increase and another granted a bonus, but neither reported as to the per cent of the increase or the number of employees affected.

Boots and shoes.—Two plants reported an increase of 20 per cent, affecting all the employees in one and 25 per cent of the force in the other, while all the employees in a third plant received an increase of approximately 20 per cent. The entire force in one plant received an increase of 10 to 30 per cent. Five establishments reported a 10 per cent increase—3, to the entire force; 1, to $33\frac{1}{3}$ per cent

of the employees; and 1 made no statement as to the number affected. One plant granted a weekly bonus of 10 per cent. Increases ranging from \$1 to \$4 a week, affecting about 10 per cent of the force, were given by 1 establishment. Sixty-five heelers in one factory received a raise of 2 cents per case.

Car building and repairing.—The railroads reported increases to car department employees, effective June 1, 1918, and retroactive to January 1, 1918, under the General Order No. 27 promulgated May 25, 1918, by the Director General of Railroads. (See June, 1918, MONTHLY REVIEW, pages 1 to 21.)

Cigar manufacturing.—An average increase of 20 per cent was granted to about 65 per cent of the employees—bunchers and rollers—in one factory. About 15½ per cent of the force in one plant received an increase of 11 per cent. Five establishments reported a 10 per cent increase, which affected all of the employees in two plants, 90 per cent of the force in one, approximately 80 per cent in one, and 25 per cent in another. One plant increased the wages of its employees between 9 and 10 per cent, and 64 per cent of the employees in another plant received an increase of 9 per cent. Two factories reported an increase of 7 per cent, affecting 62 per cent of the employees in one plant and 55 per cent in the other. An increase of 5 per cent was granted by one concern to 50 per cent of the force. Slightly more than 37 per cent of the employees in one establishment received an increase of about 4 per cent. One firm reported an increase to 90 per cent of its employees, but failed to report the per cent of increase.

Men's ready-made clothing.—The hour and week workers in one shop received increases ranging from 5 to 15 per cent, and the entire force in another shop was granted an increase of 5 to 10 per cent. One establishment reported an increase, but the report did not show the amount of increase or the number affected thereby.

Cotton finishing.—The entire force in one plant was granted an increase of 20 per cent. Two establishments reported an increase of 15 per cent, affecting the entire force in one plant, with overtime pay at the rate of time and one-half, but the second plant gave no data as to the number affected. An increase of 10 per cent was given to the entire force in one mill and a 9 per cent increase to about 90 per cent of the force was reported by another mill.

Cotton manufacturing.—Two firms reported an increase of 17½ per cent—one, to the entire force, while the other failed to state the number affected. Another plant granted a general increase of 17 per cent. Five plants gave a 15 per cent increase—two, to all operatives; one, to all but the office force; and two gave no statement as to the number receiving the increase. A 12 per cent increase to all employees was reported by one establishment. One mill granted a

10 per cent increase to about 95 per cent of the force, and another granted the same increase, giving no statement as to the number affected. A bonus of 10 per cent was granted to all "full-time" workers in one plant; to all employees in another; and to about 75 per cent of the operatives in a third plant. Four mills gave an increase of $7\frac{1}{2}$ per cent, which affected all of the employees in two plants and 98 per cent of the force in one, while the fourth did not state how many were affected. One factory gave a $2\frac{1}{2}$ per cent increase and two others reported increases but failed to give any further information.

Hosiery and underwear.—An increase of approximately 25 per cent was granted to the entire force in one establishment, while a general increase of from 10 to 40 per cent was reported by another plant. One mill gave a 20 per cent increase to all employees; and another gave a 20 per cent advance in wages to 10 per cent of the force and a 5 per cent advance to 50 per cent of the employees. All of the employees in one establishment received a $12\frac{1}{2}$ per cent increase. Two factories reported an increase of 10 per cent—one, to all employees; one, to those employed in the spinning mill, about 21 per cent of the force. A third plant granted an increase, but gave no data in regard to it.

Iron and steel.—All of the furnace laborers in one plant were granted an increase of 12 per cent. Nearly all of the force in one plant received a 10 per cent increase, while an increase of 6 to 10 per cent was given to 70 per cent of the individuals in another establishment, and an average increase of 9 per cent was granted to all of the men in a third plant. Another establishment reported an increase of 8 per cent, but did not report as to the number affected. In one plant an increase of $7\frac{3}{4}$ per cent was given to one-third of the employees and 4 per cent to two-thirds of the force. The entire force in seven establishments received percentage increases of 8.1, 7.7, 7.2, 6.5, 6.1, 5.9, and 2.8, respectively. Two plants reported an increase of 3 per cent, affecting the entire force in each. One plant gave an increase of 25 cents a day to mechanics and turn men and 15 cents a day to laborers; and in another, all laborers and mechanical men received an increase of 2 cents an hour. One establishment gave a 6 months' bonus to all salaried employees in the mill; and one plant reported an increase, but the amount and proportion of the force affected were not mentioned. Six plants reported slight decreases.

Leather manufacturing.—One establishment reported a 15 per cent increase affecting about 50 per cent of the force; and another establishment granted an increase of 8 to 15 per cent affecting 7 per cent of the employees. In five plants an increase of 10 per cent was granted, affecting the whole force in one plant, approximately all of the employees in one, about 37 per cent in one, the night men—about 15

per cent of all of the employees—in another, and 5 per cent of the force in the fifth plant. An average increase of approximately 10 per cent was granted by one firm to about 80 per cent of the total number of persons employed. An increase of 7 to 8 per cent to the entire force was given by one plant. One concern increased half of its employees 3 per cent. Seventeen per cent of the force in one establishment received an increase of 4 cents per dozen articles; and one firm reported that some increases were being made each week, but gave no further particulars.

Paper making.—One plant reported an increase of 10 per cent to the entire force, and another granted the same increase, but did not state the number affected. Practically all employees of one firm received a 6 per cent increase. Increases of 2 to 5 per cent were given to finishers in one establishment. An approximate increase of \$1.50 per week to all employees was reported by one plant; and one plant granted a flat increase of 25 cents a day to all employees; while another gave an increase of 50 cents per day to all men, and 25 cents to all women. An increase of 2 cents per hour was reported by one concern. One plant granted an increase to 10 per cent of the employees, but made no statement as to the amount of advance, while another reported a slight increase in pay, giving no further data.

Silk.—All employees of one firm received an increase of 13 per cent. Increases of 10 to 12½ per cent were reported by one establishment, but no statement was made as to how many were affected. Two mills granted a 10 per cent increase, this affecting the entire force in one plant and 81 per cent of the employees in another. Two plants granted increases of 8 per cent and 5 per cent, affecting 95 per cent of the force in the first plant and 20 per cent in the second. An increase of \$2 per week was granted to warpers and twisters in one factory.

Woolen.—In one factory an adjustment of 5 to 15 per cent was made, but no statement was given in regard to number of employees affected.

INDUSTRIAL ACCIDENTS.

AN INVESTIGATION OF THE FACTORS CONCERNED IN THE CAUSATION OF INDUSTRIAL ACCIDENTS.

The British Health of Mmunition Workers Committee has been issuing an important series of documents based on the studies made by various authorities on different phases of the problem of conserving health and energy among the munition workers. Memorandum No. 21, entitled "An investigation of the factors concerned in the causation of industrial accidents," is an effort to determine by means of the study of distribution of accidents and output through the hours of the working period the importance and effect of certain factors which influence accident occurrence.¹

The most recent studies of the Bureau of Labor Statistics bearing on these subjects are not yet issued.² Since the conclusions of Memorandum No. 21 seem to be at variance in some particulars with those suggested by the compilations of the bureau, these differences will be briefly noted.

In the introduction it is pointed out that there is an interval after the nominal beginning of a spell in which the worker does not get actively at work. The author thinks that the inclusion of this period in the tabulations introduces serious elements of error. Numerous experiments in varying the time of beginning the tabulation of the bureau data seem to indicate that the essential form of the distribution curve is not materially altered thereby. The form of the curve rather than the precise number of cases in a given division is the important matter.

It is further urged that in other compilations the interval between the occurrence of an accident and its treatment at the dressing station has not been duly taken into account. In this particular also the bureau has not found that taking account of this interval has important results. The bureau has compiled a large amount of material based on dressing-station reports and has also used independent reports made by foremen and casualty clerks from the scene of the accident without finding any material difference in the distribution curves.

The author is inclined to attach much importance to the mental attitude of the workers in certain cases. This may be illustrated

¹ This memorandum was reviewed in the July issue of the MONTHLY LABOR REVIEW, pp. 161 to 164.

² Bulletin 234, The safety movement in the iron and steel industry, 1907 to 1917, p. 154 et seq.

by the quotations, "that is to say 'inclination' drove the day-shift women to attend the dressing station toward the *end* of the morning spell, but drove the night-shift women to attend it at the *beginning*," and "it follows, therefore, that in almost all accident statistics one must make a considerable allowance for these remarkable variations in the strength of the workers' inclinations, though it is impossible to obtain a numerical measure of the extent to which inclination will falsify accident statistics."

Careful and extended experiment in the tabulation of various degrees of severity of accident ranging from dressing-station cases to those of not less than six weeks' disability does not indicate that the influence of these mental states, though present beyond question, is of sufficient importance to modify the form of the curves. Since, however, some liability to error is certainly to be found in cases where the severity of injury is not sufficient to necessitate immediate reporting, it has been the custom of the bureau to confine the tabulation generally to those cases which involve a disability of at least one day beyond the day of injury.

The memorandum classifies the factors influencing accident occurrence as follows:

Factors of personal origin—

- I. Nervous and muscular coordination in relation to speed of production.
- II. Fatigue.
- III. Psychical influences.
- IV. Nutrition and alcohol consumption.

Factors of external origin—

- V. Lighting.
- VI. Temperature, humidity, and ventilation.
- VII. Defects of machinery and absence of guards.

Class VII is not considered at all in the memorandum nor does the material as presented afford any means of judging the effect of the varying degrees of experience of the workers involved. This latter factor has proved of very great importance in the bureau's studies and its consideration might very radically modify some of the conclusions advanced in the memorandum.

It is impossible to reproduce the interesting tables and charts found in the memorandum nor can the discussion be followed in detail. The simplest way of giving an idea of the trend of the argument will be to quote the items of the summary with such comment as seems pertinent in each case.

Speed of production.—The incidence of accidents (from hour to hour) showed a qualitative resemblance to the output variations and it was concluded that varying speed of production is the factor largely responsible for day-shift variations in accidents in men. Though the night-shift output followed a similar course to the day-shift output, the accident incidence was entirely different. It was at a maximum

at the beginning of the shift, and gradually fell the whole night through. This was due to the fact that the night-shift workers started work in an excited and careless state and gradually calmed down during the night.

This contradiction between the day and night results is scarcely adequately explained by the difference in mood of the workers which is pointed out. That the situation is a very complicated one is further emphasized by the compilations of the bureau which indicate that for varied and extended kinds of work the morning spell presents two portions. In the first of these output and accidents both increase—accidents the more rapidly. In the second output continues to increase while accidents decline. Any complete explanation of accident distribution must take account of such cases as these as well as of those recorded in the memorandum.

Fatigue.—The influence of fatigue on accidents to women was strikingly shown in the fuse factory. The women's accidents were two and one-half times as numerous when they were working a 12-hour day as in a subsequent period when they were working 10 hours per day.

This, taken with other evidence presented and confirmed by the studies in other directions recorded in earlier memoranda, is a most important indication of the care needed in introducing women into work of this character. It is perhaps the most important practical finding of the memorandum.

Psychical influences.—At all the factories the night-shift workers suffered fewer accidents than did the day shift. This was not because the output was smaller, as at the fuse factory it was distinctly bigger by night than by day. It was psychological in origin, and due to the night-shift workers settling down to a calmer mental state than the day-shift workers, and so becoming less careless and inattentive. The psychical factor is one of the most important in accident causation.

Attention should be called to the fact that while these workers showed lower rates at night there are sorts of labor in which the night rates are constantly higher. It is difficult to understand why calmness should come at night to these workers and not to mechanics and toolmakers engaged in very similar tasks in other factories.¹ It is impossible not to suspect that some other factor needs consideration.

Alcohol consumption.—Indirect evidence as to the effects of alcohol consumption was obtained.

The conclusion of the author is that the influence of alcohol consumption is manifested more in the night shift than in the day. This conclusion is strongly confirmed by the experience of a large steel mill studied by the bureau. In this mill it was found that the rates of discipline for alcoholic indulgence were from 2 to 10 times as great by night as by day. There was another interesting feature,

¹ See Bulletin 216 of the U. S. Bureau of Labor Statistics, on Accidents and accident prevention in machine building, by L. W. Chaney and H. S. Hanna, August, 1917, pp. 59-62.

namely, that both accident rates and the per capita use of alcoholics were declining during this period more rapidly for the night than for the day shift.

Lighting.—Accidents due to foreign bodies in the eye were 7 to 27 per cent more numerous in the night shift than in the day shift, though all other accidents were considerably less numerous. This was due to the artificial lighting, as the excess of eye accidents was most marked in the worst lit factory.

This is one of the most positive evidences of direct effect of lighting on the accident rate that has been offered. In most cases the lighting effect is so much complicated with other factors as to make it doubtful what its precise influence is.

Temperature.—Accidents were at a minimum at 65 to 69° F. and increased rapidly at higher temperatures and slowly at lower temperatures. Continuous records were kept of the town in which the shell factories were situated, and it was found that in all of them the accidents increased considerably as the weather grew colder and diminished as it grew warmer. In one factory the women's accidents were nearly two and one-half times as numerous when the temperature was at or below the freezing point as when it was above 47°, whilst the men's accidents were twice as numerous.

In this connection it should be stated that in steel mills extra men are frequently employed in the summer as "spell" hands to relieve the regular crew. This introduction of relatively inexperienced men may be quite as important as the direct effect of summer heat.

Prevention of accidents.—Accidents are largely due to carelessness and inattention, so they could be diminished by preventing the workers from talking with one another in the shops.

It was found that the women suffered twice as frequently from sprains as the men, and were especially liable to wrist sprains at the fuse factory, as they had not strength sufficient to push home the clamping lever of the lathes. The women at the shell factories suffered nearly four times more burns than men, chiefly from hot metal turnings. Hence the sprains could be reduced by alterations in the machinery and the burns by protecting the hands.

The conclusion that "carelessness and inattention" are largely the cause of accidents is not borne out by the studies of this bureau. It may be stated, however, that ignorance and inexperience are largely the cause of accidents and that adequate training in the skillful doing of work will diminish them. The more closely the accident problem is studied the more evident does it become that skill rather than care is the remedy so far as minor injury is concerned.

It is impossible to stress too strongly the importance of proper modifications of machines and the utility of protection of various sorts.

INDUSTRIAL HYGIENE AND DISEASE.

EXECUTIVE ORDER REGARDING PUBLIC HEALTH AND INDUSTRIAL HYGIENE.

Under an Executive order issued by the President July 1, 1918, public health activities of the Federal Government are placed entirely under the control of the Treasury Department. The order specifically states, however, that this does not prohibit the Bureau of Labor Statistics from conducting investigations of vocational diseases, shop sanitation, and hygiene. Following is the text of the order in full:

"Whereas, in order to avoid confusion in policies, duplication of effort, and to bring about more effective results, unity of control in the administration of the public health activities of the Federal Government is obviously essential, and has been so recognized by acts of Congress creating in the Treasury Department a Public Health Service, and specially authorizing such service 'to study the diseases of man and the conditions influencing the propagation and spread thereof' and 'to cooperate with and aid State and municipal boards of health':

"Now, therefore, I, Woodrow Wilson, President of the United States, by virtue of the authority vested in me as Chief Executive, and by the act 'authorizing the President to coordinate or consolidate executive bureaus, agencies, and offices, and for other purposes, in the interest of economy and the more efficient concentration of the Government,' approved May 20, 1918, do hereby order that all sanitary or public health activities carried on by any executive bureau, agency, or office, especially created for or concerned in the prosecution of the existing War, shall be exercised under the supervision and control of the Secretary of the Treasury.

"This order shall not be construed as affecting the jurisdiction exercised under authority of existing law by the Surgeon General of the Army, the Surgeon General of the Navy, and the Provost Marshal General in the performance of health functions which are military in character as distinguished from civil public health duties, or as prohibiting investigations by the Bureau of Labor Statistics of vocational diseases, shop sanitation, and hygiene.

"WOODROW WILSON.

"The WHITE HOUSE, July 1, 1918."

CONDITIONS OF LABOR IN CERTAIN NEW YORK CITY LAUNDRIES.

Under the title "Cost of Clean Clothes in Terms of Health" the New York City Department of Health and the Consumers' League of the City of New York have prepared a report¹ which gives the result of their joint study during the fall of 1916 of 42 power laundries in Manhattan and Brooklyn to ascertain "whether this trade is a menace to health, whether it causes specific diseases or predisposes the employees to illness, and if so, what ways may be found to safeguard the workers and make the industry a healthful one." The laundries studied employed 715 men and 2,309 women, representing "from one-fifth to one-quarter of all the workers in this industry in the two boroughs." Medical examinations were made of 68 men and 141 women to determine the effect upon them of the different processes and conditions of work; and 439 women were visited in their homes primarily to determine their social background. The questions relative to laundry work which the study aimed to answer, together with a brief summary of the disclosed facts pertaining to each, were as follows:

1. To what degree does the handling of soiled and variously contaminated linen communicate tuberculosis and various acute infectious diseases to the women, girls, and men who are employed in sorting and marking for identification this miscellaneous material?

Tuberculosis was found to be more common in this group than in any other—16.2 per cent of all those examined, including suspected cases. Pathological nose and throat conditions were found in 84 per cent, the rate for all laundry workers being 64.5 per cent. "The prevalence of nose and throat troubles may justly be attributed to the dust and dirt shaken from the soiled and possibly contaminated garments. These impurities fill the air of the workroom and are inhaled by the workers."

2. How are men affected by working in an atmosphere heavily charged with steam, often wading ankle deep in the water that comes from the washing machines, and lifting heavy bags of water-soaked clothes from the washing wheels?

Of 45 men examined, 26.7 per cent were found to have pathological pulmonary conditions, and 25 per cent had rheumatism. Two men suffering from inguinal hernia attributed their condition to the lifting of heavy weights in the wash room.

3. Are there any injurious effects resulting from the strain of long-continued standing, of foot-treadle work, of shaking out crumpled clothes, and other activities incident to this industry, upon the generative organs of female workers?

¹ Cost of clean clothes in terms of health, by Louis I. Harris, M. D., director bureau of preventable diseases, Department of Health, New York City, and Nellie Swartz, executive secretary, The Consumers' League of the City of New York.

Generally speaking, the physical examination of certain workers seemed to give an affirmative answer to this question. Two special risks encountered by women at body ironing machines are mentioned in the report, namely, the breathing of air vitiated by the poison of carbon monoxid, which is well known to be deleterious, and the manipulation of treadles with the feet by means of a jerky motion that is likely to cause injury to the female organs.

4. Are there any other physical strains of health hazards peculiar to this industry?

Thirty per cent of the markers and sorters and 28.5 per cent of those operating the flat-work ironing machines were found to have flat feet; 26.7 per cent had varicose veins; 20 per cent were anemic.

From our findings on tuberculosis, other pulmonary conditions, heart conditions, anemia, low blood pressure, uterine troubles, and fatigue, it seems probable that the atmosphere of the laundry is responsible for much of the ill health found among the workers.

5. What effect do hours, wages, etc., have upon the health of workers?

Long hours three or four days in the week were found to result in a strain upon the health and vitality of the workers beyond the power of recovery during the shorter days, and this fact is given as a contributing cause of the large labor turnover to be found in the laundry industry. A tabulation of 434 women shows that 27.6 per cent worked over 54 hours a week, 31.8 per cent worked 54 hours, while only 9.9 per cent worked under 48 hours. "The cause for the long hours found * * * in many of the laundries is simply mismanagement on the part of the employer who carries on his business in a hit-and-miss way."

As to wages, the report suggests that the fact that a large proportion of laundry workers earn less than a living wage explains the overcrowding of their homes, the general poverty, and the cramped and struggling lives which they lead. A statement giving the weekly wages received by 417 women shows that 8.4 per cent were receiving less than \$6; 47.3 per cent were receiving less than \$8, and 78.3 per cent were receiving less than \$10. Continuing, the report states that—

Few industries show more clearly than this one the need for minimum-wage legislation in New York State. Not only is the industry a pathetic illustration of the low wages which employees will receive when no minimum is set, but also it is a vivid example of an industry in which there is need of some stimulus which will force employers at the bottom of the scale to introduce more efficient methods of management into their business.

Information was obtained from 354 girls as to the amount of time they had been idle during the year. Of this number only 25 per cent claimed that they had not missed one day; 35 per cent had been away from work less than 1 month, while 40 per cent had been idle from 1 to 10 months, and 14.7 per cent were idle 6 months in the year.

Attention is called to the large labor turnover in laundries—the constant shifting, for instance, from one place and one line of work to another which characterizes the shakers and the workers engaged on unskilled labor. “Apparently,” concludes the report, “ * * * the employers as a whole are satisfied with a force of workers which is constantly shifting except in the best paid positions. The time-keeping even of the regular workers is bad, the girls drop out for a day, returning to the jobs without any apparent effort on the part of the employer to determine the cause of this irregularity and to take the necessary steps to stabilize his labor force.” It is stated that in practically every laundry the questions of grievances of employees, of discharge, and of shop discipline are met in a most unbusinesslike and antisocial way, and that shop committees, composed of representatives of the employees and the management, are almost unheard of.

The foregoing study has given ample evidence that the organization of this industry is lacking in consideration of the factors promoting efficiency in the working force. Absence of essentials for comfort, health, and safety are reflected in the shifting of workers; low pay reduces the workers' ability, and long hours increase the accident risks and poor work. Prospect of advancement from one occupation to another is overlooked. Four laundries gave no holiday throughout the year, over one-half observed only four. Practically no efforts have been made to eliminate unnecessary fatigue by sufficient chairs, steady light, rest periods, or change of occupation.

There are, however, a few laundries where consideration has been given to these conditions; in which a system has been worked out whereby work is evenly distributed and hours are regular throughout the week; where up-to-date machines have been introduced, a decent living wage is paid, and good efficient service is rewarded by advancement. These laundries attract and accept only the more intelligent class of employees. Needless to say, their labor turnover is reduced almost to a minimum.

PRECAUTIONS TO PREVENT DANGER OF INFECTION BY ANTHRAX.¹

Late in 1913 the British departmental committee on anthrax was appointed to revise existing regulations applied under the factory and workshop act in some of the branches of the worsted industry for the purpose of preventing anthrax in the processes of manufacture of certain varieties of wool, goat hair, and camel hair. Subsequently the committee was asked to advise what precautions can be taken in warehouses at the ports and in the woolen and felt trades for the prevention of the disease. In the course of its investigations the committee found that in spite of the precautions already taken, the incidence of anthrax is increasing in the worsted trade, and that at warehouses at the ports and in the woolen and felt trades “it is assuming somewhat alarming proportions.” The conclusion was reached that

¹ Report of departmental committee appointed to inquire as to precautions for preventing danger of infection by anthrax in the manipulation of wool, goat hair, and camel hair. Vol. 1, Report of the disinfection subcommittee. London, 1918. 93 pp. Price, 1s. net. [Cd. 9037.]

measures already taken in the worsted trade can afford no protection to workers in warehouses at the ports or to operatives in the woolen and felt trades, if applied in those occupations, and that except in minor details all the precautions it is practicable to take in factories have been in operation for a considerable time either voluntarily or in accordance with existing regulations. It is believed that many cases of anthrax have been prevented, but the committee feels that such precautions can not successfully cope with the danger. Since it appears that manufacturing processes do not kill the living organisms (anthrax spores) which cause anthrax, and that the disease occurs and continues to occur in every process from the entry of the raw material into the factory to the production of the finished goods, the suggestion is offered that the problem must be met by preventing the disease among animals or by the destruction of the organisms in wool and hair. To this end a subcommittee was appointed to endeavor to find a process by means of which anthrax spores can be destroyed, and the report of the experiments of this subcommittee constitutes the major portion of the volume under review. The committee did not consider the question in connection with hides.

Owing to the difficulty of disinfecting wool and hair and the fact that previous efforts to find a satisfactory process had been unsuccessful, the prospect of success in this effort did not appear promising to the committee. However, the subcommittee "surmounted every difficulty successfully" in evolving a method of disinfection, having due regard to the following conditions which are laid down as necessary if the method is to be practicable:

1. It must be capable of completely destroying anthrax spores even when protected as they are in animal fibers.
2. It must not cause damage to the material.
3. It must be practicable for use on a large commercial scale.
4. Its cost must be reasonable.

In every experiment two test materials were submitted to pre-arranged treatment:

1. "Infected test material," consisting of bloodclots containing deeply embedded anthrax spores, this form being chosen because it is generally agreed that spores so protected are the most difficult to destroy; and
2. "Damage test material," which consisted of raw wool or hair of one or other of the dangerous varieties supplied by manufacturers, and returned to them after treatment for examination and report as to the effect of the process.

Full details of the methods of preparation and of the behavior of each of the test materials are given in the report. It was found that disinfection by steam was impracticable by reason of its damaging effect, and efforts were therefore concentrated on devising a chemical process. After eliminating by experiment the causes¹⁶ of

early failures, a process was evolved, the essential features of which are thus described in the report:

Stage 1. Preliminary treatment, consisting of agitation (by means of rakes which thrust the wool through liquid as in scouring machinery) for 20 minutes in a solution of soap in water (preferably also containing an alkali like sodium or potassium carbonate) at a temperature of 102° to 110° F., assisted by squeezing through rollers. The protection afforded to the spores is by this means removed, the spores are rendered susceptible to the action of disinfectants and the wool is cleansed.

Stage 2. Disinfecting treatment in which the material is agitated by similar means for 20 minutes in a 2-2½ per cent solution of formaldehyde in water at a temperature of 102° F., assisted by squeezing through rollers. In this stage the bulk of the anthrax spores is destroyed, those only surviving which are embedded in remnants of blood-clots which in a few instances may have escaped complete disintegration during stage 1, but which become saturated with formaldehyde solution.

Stage 3. Drying in a current of air heated to 160° F. The moisture in the wool is driven off, and nearly all the surviving spores in any blood remnants are destroyed.

Stage 4. Standing for some days to insure by the progressive action of the formaldehyde which remains in the blood remnants the complete destruction of the few weakened spores which have survived stage 3.

It is pointed out that the efficiency of the preliminary treatment is the key to successful disinfection, but that stages 3 and 4 are advisable since "the possibility is always present that some small remnants may escape and we therefore think stages 3 and 4 should be regarded as integral parts of the process of disinfection, which are in the nature of safety factors." The subcommittee took the precaution to submit its work to "an expert critic outside of and entirely independent of the committee," whose experiments were "invaluable in enabling us to draw confident conclusions, confirming, as they do, the whole of our work."

To determine whether the process evolved would in any way damage the materials treated, the subcommittee arranged with manufacturers in each of the branches of the wool trade (worsted, woolen, and felt) to supply a considerable quantity of each of the different varieties of dangerous materials, take it back after disinfection, manufacture it in the ordinary way alongside similar but untreated materials, and report on its behavior in each process. The materials treated in this test were: (1) Persian wool (representative of the class of dangerous sheep's wool used in the worsted industry); (2) mohair (representative of goat's hair); (3) alpaca (representative of the materials of the camel-hair class); (4) medium quality East Indian wool (representing the class of sheep's wool used in the woolen trade); (5) low grade East Indian wool (representing the class of materials used in the felt trade). It is emphasized that in each case the material was selected by the manufacturers because it was of the class or quality which most easily shows

damage. After treatment the materials were returned to their owners and passed through the appropriate process in each of the four branches of the trade involved, i. e. the manufacture of (a) worsted goods, (b) mohair and alpaca goods, (c) woolens, and (d) felt, and the report states that "in no case was damage observed."

The commercial practicability of the process appears from the fact, as indicated in the report, that "the method lends itself to continuous treatment carried out automatically by machinery of a simple character and easily managed"—"machinery of a type already in use in every worsted and many woolen manufactories." The fact that formaldehyde is a substance already manufactured on a large scale and used for a variety of purposes in many industries also contributes to the commercial feasibility of the process.

As to the matter of cost, the subcommittee calculates that the capital necessary for the erection and equipment of a central station capable of disinfecting 10,000,000 pounds of wool annually would be £18,000 (\$87,597), and that the working cost of disinfection, including very liberal allowances for depreciation and sinking fund, would vary from 0.544 penny (1.1 cents) to 0.824 penny (1.7 cents) per pound of untreated material. This is based on prewar prices, to which, it is estimated, about 75 per cent should be added.

The report concludes with a warning that all danger is not removed by the disinfecting process, since there will still be a certain, though limited, degree of risk during manipulation of materials (such as in opening, etc.) before it passes into the disinfection machinery, and suggests that very stringent measures should be taken to reduce this risk as much as possible. Those who would use the process are also reminded that the method of disinfection is a chemical process which should be carried out only under expert supervision. "It is highly technical, somewhat complicated, and is distinctly not a process calculated to yield certain results in the hands of the ordinary person, who may not realize the importance or the necessity for the different operations."

LABOR LAWS AND REGULATIONS.

COMPULSORY WORK PROVISIONS IN MONTANA AND RHODE ISLAND.

Notice has been taken in earlier numbers of the MONTHLY REVIEW of laws of a number of States, and of an order in council of the Dominion of Canada, looking toward the compelling of service by persons physically able to render the same, during the emergency caused by the War.¹ Rhode Island by legislation, and Montana by an order issued by the State Council of Defense, have joined the group of States having such provisions; and selective-service regulations (noted in the next article), promulgated by the Provost Marshal General, undertake to require that registrants under the selective-service law, who are not actually in the service, shall be engaged in productive occupations or employments. A bill was also introduced in Congress on June 26, as the first step toward a law for the District of Columbia of a nature similar to those of the States named.

The law of Rhode Island requires employment at some service "necessary and essential for the protection and welfare of this State and the United States," for a period of 36 hours per week, the possession of property or income being no defense. The act applies to able-bodied male residents "between the ages of 18 and 50 years," and is to be in effect on the issue of a proclamation by the governor. On claim of inability to find employment, persons may be assigned to service on undertakings of the State or any subdivision thereof, the duty of making assignments devolving upon the commissioner of industrial statistics.

Possibly the fact that Montana is an equal suffrage State accounts for the fact that the order issued by the Council of Defense of that State requiring employment at "some legitimate occupation" for at least five days per week for the period of the existing War, makes no distinction as to sex, but covers "every adult person having the necessary physical and mental capacity and ability." No age limit is fixed in the order.

The bill introduced in Congress, and applicable to the District of Columbia, would bring under its provisions able-bodied males "between the ages of 18 and 60 years," requiring each such person "to habitually and regularly engage in some lawful, useful, and recog-

¹ West Virginia, MONTHLY REVIEW, August, 1917, p. 150; Maryland, September, 1917, p. 113; New Jersey, April, 1918, p. 277; New York and Canada, June, 1918, p. 199.

nized business, profession, occupation, or employment whereby he may produce or earn sufficient to support himself and those dependent on him." Possession of property is not a defense, and delinquents are to be required, as a part of the penalty for their noncompliance, to work on the public roads or streets or some other public work of the District.

COMPULSORY WORK REGULATIONS AFFECTING DRAFT REGISTRANTS.

The compulsory work regulations promulgated by the Provost Marshal General, mentioned in the preceding article, apply only to males coming within the draft ages. They make it the duty of enforcing and administrative officers, "and of all citizens," to report all known facts as to "registrants who are idle or who are engaged in any occupation or employment defined and described in these regulations or any amendments thereof as nonproductive occupations or employments." Persons found to be idle or unprofitably employed are to be withdrawn from deferred classification, if they have been so classed, and, after final decision as to the charges, are to be physically examined, and, if found fit, are to be inducted into the military service. Nonproductive occupations are described as follows:

(a) Persons engaged in the serving of food and drink, or either, in public places, including hotels and social clubs.

(b) Passenger-elevator operators and attendants; and door men, footmen, carriage openers, and other attendants in clubs, hotels, stores, apartment houses, office buildings, and bathhouses.

(c) Persons, including ushers and other attendants, engaged and occupied in and in connection with games, sports, and amusements, excepting actual performers in legitimate concerts, operas, or theatrical performances.

(d) Persons employed in domestic service.

(e) Sales clerks and other clerks employed in stores and other mercantile establishments.

Provision is made for reasonable excuses for temporary idleness, and for employment in a nonproductive occupation; in the latter case, domestic circumstances, unusual hardship, or a necessity of night work by women if the occupation were changed are sufficient reasons for not making a change.

WORKMEN'S COMPENSATION LEGISLATION IN CANADA.

ALBERTA.

The Parliament of Alberta at its recent session enacted a new law on the subject of workmen's compensation, which supersedes the act of 1908, and considerably enlarges the scope and liberality of the provisions made for industrial injuries. The act was approved April 13, and will take effect as to mines, coke ovens, and briquet-

ting plants on August 1 of the current year, and as to other industries covered, on January 1, 1919.

The scope of the act is fixed by an enumeration of the trades and businesses to which it applies, the list being quite extensive; further inclusions are secured by a provision making it applicable to "any occupation incidental thereto or connected with the industries enumerated in this schedule." Transportation by land and water is included, but six of the more important railroads of the Province are exempted from the provisions of the act. Outworkers, clerical employees not exposed to the hazards of the industry, and persons whose employment is but casual and not for the purpose of the trade or business of the employer are excluded. Employees of the Government are included in the act if engaged in occupations covered by it.

Benefits are payable beginning the fourth day after the injury, and if the disability continues for ten days or more, payment is made from the date of the accident. Industrial diseases are compensated on the same basis as accidental injuries. Compensation for death disregards the earning capacity of the deceased workman, fixed amounts being paid as follows: To a widow or invalid widower, \$20 per month, and \$5 additional to each child under sixteen, no total to exceed \$40 per month. If neither parent survives, the allowance to children is \$10 each, subject to the same limitations. A funeral benefit of \$75 is allowed in all cases.

Disability benefits are also arbitrary where the disability is total, being \$10 per week during its term, or if there is a child or children, \$12 per week. Partial disability is compensated by fixed allowances where such disability is due to maiming, while in other cases the benefits are based on a percentage of the wage loss. The maximum for any injury or death is \$2,500.

The act is to be administered by a board whose power is exclusive and final. Benefits are paid from an insurance fund to which all employers under the act must contribute. Separate funds are to be maintained for each schedule, i. e., mining and related industries, and other industries; but if at any time money is not available in the funds to make the payments, money may be advanced out of the consolidated revenue fund of the Province, the same to be reimbursed with interest. After January 1, 1920, nonresidents of the Dominion who are dependents after one year from the date of the arrival of the workman in Canada may receive no benefits, though this provision does not apply to parents.

QUEBEC.

The law of Quebec is amended (chapter 71, acts of 1918) so as to include within its provisions employees receiving as much as \$1,200

instead of only up to \$1,000. The maximum of benefits is advanced from \$2,000 to \$2,500, and a minimum weekly benefit of \$4 is prescribed in cases of temporary disability. The provision that but one-fourth of the workman's earnings in excess of \$600 shall be considered in computing benefits is changed so as to start from \$800. Thus it appears that the entire effect of the amendments is to liberalize the act, as has been almost invariably the case where such laws have come up for revision.

PUBLIC EMPLOYEES OF THE DOMINION.

An act of the Dominion Parliament of the current year directs that "an employee in the service of His Majesty," if injured, or his dependents, in case of his death, shall be entitled to compensation benefits under the laws of the Province in which the accident occurred, the same as if the employee were in the service of a private employer. Local boards and authorities are to administer the law, as in the case of other employers. Benefits are payable out of the consolidated revenue fund of the Dominion.

MINIMUM WAGE LAWS OF BRITISH COLUMBIA AND MANITOBA.

BRITISH COLUMBIA.

The recent legislative assembly of the Province of British Columbia enacted a law establishing a minimum wage board to ascertain the wages paid to women in the Province, and, if after investigation it appears that inadequate wages are being paid in any occupation, trade, or industry, to call a conference for the purpose of determining what is a suitable wage and to establish and enforce the same. The board is to serve without pay, and to hold office during the pleasure of the lieutenant governor, who also makes the appointments. One of the three members is to be a woman, and the Deputy Minister of Labor is to be a member *ex officio* and chairman of the board. A secretary and expert clerical and other assistance may be employed. All occupations and employments are subject to the act, farm laborers, fruit pickers, and domestic servants only excepted.

The conference to fix wages is to be representative of employers, employees, and the public, and its findings and recommendations are to be a matter of record for the use of the board. Recommendations are to be either approved or rejected; and if rejected, a new conference is to be called. A new conference may also be called on petition of employers or employees, or on the motion of the board itself. Licenses may be issued for the employment of women physically defective at a rate less than that fixed by the board; but employers paying less without such license may be punished by fine, and the employee is

also entitled to recover any balance between the wages paid and the rate fixed by the board.

MANITOBA.

The Manitoba statute is more limited in its scope than that of British Columbia, its provisions extending only to female workers "in any shop, mail-order house, or factory in any city in Manitoba." However, shop means all places for retail trade, including tobacconists, news agents; messenger service, hotels, restaurants, etc., as well as barber shops, refreshment houses, and auction rooms. A board of five persons is provided for, two representing employers, two employees, and one the public. The members are to be compensated for their services and expenses at a rate determined by the lieutenant governor in council; no provision is made as to the term of office. Investigations and inquiries are to be prosecuted by the board, which has the power to subpoena witnesses, punish for contempt, require the production of documents, etc. Orders may also be made applicable to any portion of the Province not in any city, at the discretion of the board.

The powers of the board extend to hours of labor, conditions of sanitation and those essential to morals, and wages. Licenses for substandard employees are provided for, as is usual in acts of this nature; also for the protection of employees testifying before the board. As in the act above noted, the employer is punishable by a fine for violation of the act and is also liable in a suit for unpaid balances.

BILL FOR MINIMUM WAGE IN THE DISTRICT OF COLUMBIA.

As noted in the MONTHLY REVIEW for June, 1918 (pp. 150-155), a bill for a minimum wage for female workers in the District of Columbia is before Congress. Following the hearings reported in the issue for June, a favorable report on the bill was made on May 15, and it came up for consideration before the House of Representatives on July 8. The measure was discussed at length, some opposition developing, though for the most part the speakers were in favor of the bill. The proponents of the bill stated that in the main it is based on the Oregon statute, an act that has been passed upon by the courts. It resembles, therefore, the law of that State in its principal features, including the appointment of a board, investigations by conferences, the fixing of rates for minors and learners as well as for adult women skilled in their employment, time during which learners' rates may be paid, etc. An amendment adopted on July 8 specifically excludes domestic servants from the purview of the bill.

LABOR ORGANIZATIONS.

RAPID PROGRESS OF TRADE-UNION MOVEMENT IN HUNGARY.¹

The May (1918) number of the Szakszervezeti Ertesimo, the official organ of the Hungarian trade-unions, contains the statement that in 1917 the number of organized workers in Hungary increased to 215,222. Before the outbreak of the War the Hungarian trade-unions had a membership of 107,486. The drafting of members into military service reduced the membership to 43,381 at the end of 1915. This crisis was overcome in 1916, during which year the membership increased to 55,338. In the past year, however, this number has been nearly quadrupled. The great propaganda work of the Hungarian trade-unions dates back to the peace demonstration on May 1, 1917.

If it is considered that industry and legal protection of the right of coalition are equally undeveloped in Hungary, the rapid progress of the Hungarian trade-union movement becomes particularly noteworthy.

Of the 215,222 organized workers 166,411 were men and 48,811 were women. The number of female trade-union members is nearly five times as large as in prewar times. The majority of the organized Hungarian workers are domiciled in Budapest, the capital of Hungary. Of the individual federations affiliated with the central organization that of the iron and metal workers experienced the largest increase of membership. Its membership increased from 20,000 to over 80,000. The following federations have the next largest membership: Miners (21,178), railroad workers (15,568), private salaried employees (10,588), and textile workers (3,615).

The revenues and the capital of the unions have increased in a like ratio as their membership. At the end of 1917 the total capital of the trade-unions was 5,750,000 crowns (\$1,167,250), or 1,800,000 crowns (\$365,400) more than at the end of the preceding year. The revenues amounted to 3,500,000 crowns (\$710,500) and the disbursements to 2,000,000 crowns (\$406,000). Since 1903 the Hungarian trade-unions have paid out 9,300,000 crowns (\$1,887,900) in benefits to their members. In this total are included 2,250,000 crowns (\$456,750) paid out in the form of subsidies to families of members drafted for military service during the War.

¹ Internationale Korrespondenz. Berlin, May 18, 1918.

Of late trade-union organizers have won many new members among the street-car employees, workers in Government and communal employment, and among female tobacco workers. At the present date the membership of the Hungarian trade-unions has exceeded the quarter-million mark.

TRADE-UNION MOVEMENT IN THE SCANDINAVIAN COUNTRIES, 1917.¹

The national trade-union federations of the three Scandinavian countries report a very noteworthy increase of their membership during the year 1917.

In Sweden the trade-union movement at the end of the year under review had a membership of 186,146, an increase of 45,334 (39.2 per cent) over the preceding year. The female membership had increased from 8,238 to 14,402. The total increase of membership is distributed among a number of federations, among which those of the metal workers, sawmill workers, factory workers, transport and mercantile workers, tailors, bookbinders, and workers in communal employment show the largest increases. Accurate data as to the wage movements organized during the year under review are not yet available, but the total amount of the strike benefits paid by the trade-unions during 1917 is the largest since the general strike in 1909.

The National Central Federation of the Norwegian Trade-Unions reports an increase of its membership during the past year by 14,000, the total membership being 93,000 in round numbers. Notwithstanding the fact that during 1917 the number of wage movements was very large—559, involving 65,000 workers—strike was resorted to in only 44 movements, affecting about 3,000 workers. The Central Federation's share in the strike benefits paid was 85,000 crowns (\$22,780) as against 660,000 crowns (\$176,880) in 1916. A very important movement brought about the introduction of eight-hour shifts in the paper, cellulose, and wood-pulp industries. In these industries 14,000 workers are now working under an eight-hour shift system. The building trades federations were able to conclude collective agreements in most of the large cities of the country. These agreements affected about 6,000 workmen.

The membership of the trade-unions affiliated with the Danish National Federation increased in 1917 by 28,762 to a total of 179,284, of which 27,776 were female members. At the end of the year under review 53 federations with a total of 1,674 trade-unions, 208 of which were newly founded, were affiliated with the Central Federation. The report of the National Federation mentions negotiations with

¹ Internationale Korrespondenz. Berlin, May 3, 1918.

German trade-union leaders which took place to safeguard the interests of Danish workers going to Germany in quest of employment. It had become known that Danish workmen through false promises of German labor agents had been enticed to go to Germany. An agreement was reached that the activities of such labor agents in Denmark should cease and that the Danish trade-unions should act as employment agencies for those of their unemployed members who intended to seek work in Germany. The activities of the Danish trade-unions in this respect never attained any importance and now have been discontinued entirely. The annual report of the federation also calls attention to a number of unauthorized strikes brought about by syndicalistic agitation. The employers obtained prosecution by the courts of the instigators of these strikes and seven labor organizations were fined in the total amount of 40,800 crowns (\$10,934.40). Of this amount 32,000 crowns (\$8,576) were paid by the shipyard workers' organization, which is not affiliated with the National Federation of Trade-Unions.

ECONOMIC DEMANDS OF THE SWISS WORKMEN.

The Internationale Korrespondenz¹ reports that a joint committee of the Swiss trade-unions and of the Socialist Party has transmitted to the Federal Council (*Bundesrat*) a memorandum containing the following economic demands:

1. Establishment of a Federal supply department with an advisory council which shall render opinions on all problems of supply and conjointly with the Federal Council shall take suitable measures.
2. Elimination of middlemen wherever this is possible.
3. Determination of minimum wages for all trades and industries for which such wages have hitherto not been determined; guaranty of a minimum income based on the local cost of living with the aid of subsidies from public funds.
4. Fixing of prices for all foodstuffs and necessaries by the advisory council of the supply department in a manner corresponding to the interests of the consumers.
5. Prevention of further increases in the price of milk or assumption of excess costs by the Federal Government; restriction of the production of condensed milk and sale of it only on presentation of milk cards; prohibition of the manufacture of milk chocolate; complete prohibition of the export of fresh milk, the export of milk products to be permitted only in return for some necessary commodity.
6. No further increases in the price of bread; in case of decreasing supply, reservation of the bread grain for those classes of the population dependent upon bread as their principal means of nutrition; complete prohibition of the hoarding of cereals and of their use for purposes other than nutrition; restriction of the production of fancy bakery goods and confectionery.
7. *Potatoes*.—Census of the supplies, and seizure and purchase of the entire crop by the Federal Government.

¹ Internationale Korrespondenz. Berlin, Apr. 6, 1918.

8. *Fruit and fruit products.*—Complete prohibition of export; prohibition of the use of fruit for industrial purposes as long as the needs of the consumers have not been covered.

9. *Meat.*—The trade in live stock to be made a monopoly; rationing of the consumption, and reduction of meat prices.

10. *Mass feeding.*—Compulsory introduction of mass feeding (public war kitchens) by large communes, with adoption of the principle of participation in it of the entire population, and with financial aid from the Federal Government.

11. *Fuel.*—Coal monopoly; centralization of the fuel trade and rationing of fuel; fixing of maximum prices for all kinds of fuel; sale of fuel to people of small means at reduced prices; restriction of the export of lumber.

12. *Shoes.*—Sale of national standard shoes to people of small means at reduced prices.

13. *Housing.*—Promotion, with Federal financial aid, of the construction of small dwellings, particularly in communes in which there is a dearth of small dwellings; temporary prohibition of the construction of buildings de luxe, churches, and places of amusement; requisitioning of vacant dwellings.

14. *Relief measures.*—Preparation of plans for emergency public works for the purpose of unemployment relief; reduction of the hours of labor; unemployment benefits from public funds.

15. *War profits.*—Seizure of all business profits in excess of 10 per cent.

WELFARE WORK.

WELFARE WORK FOR CIVILIAN EMPLOYEES OF THE UNITED STATES.

BY AUGUSTUS P. NORTON.

The statement is often repeated that the present war is one of nations rather than of armies. Consequently the highest possible efficiency is needed on the part of every essential cooperating element. Certainly the civilian forces of the Government, enormously enhanced in numbers during the past year, constitute a most important agency in the effectiveness of the war operations. It is significant that for a recent period of 15 weeks, as will be shown more in detail, the separations from the service have been nearly half the number of the additions. And if it be true that well-conducted welfare agencies are able to add much to the efficiency of employees, a consideration of accomplishments, plans, and possibilities in this line for the employees of the United States in Washington is well worth while.

PRESENT ACCOMPLISHMENT.

The welfare work of the Government may be grouped under four heads: Housing, which is a special field and which will not be dealt with here; the provision of good lunch facilities; health measures, which include emergency hospital and visiting nurse work; and recreation, including educational work of a social nature.

Restaurants.—Restaurants and lunch rooms, providing lunches and other meals for the employees at reasonable prices, are operated in a number of the Government buildings. Included among them are restaurants at the Bureau of Engraving and Printing, the Interior Department (in different locations), and the Post Office Department, which have been established for a considerable length of time, as well as several of more recent installation mentioned below.

It is noteworthy regarding the cafeteria at the Bureau of Engraving and Printing that it is managed cooperatively by an association of employees. Any employee is eligible for membership in the association and the officers, who serve without compensation except a small salary to the treasurer, determine the important policies of management. They employ the manager of the cafeteria on a salary and he in turn employs the other workers in the restaurant, numbering 50 in all shifts, buys supplies, and supervises the details of operation. The quarters, light, and heat are furnished free by the Government. Room for the purpose was provided

when the present building was erected and has been occupied since its opening, five years ago; it has been necessary, however, to add to the accommodations by turning additional space into the dining room and by inclosing parts of the large roof gardens so that they may be used for the same purpose. The fixtures, such as stoves and ovens, dishwashing machines, counters, steam tables, and dining tables, chairs, etc., were installed by the Government when the building was erected or at later intervals. The dishes, silverware, and the like, were purchased by the association of employees at the beginning, the men subscribing \$1 each and the women 50 cents each, a total of \$1,800 being raised. Later this was refunded and additions and replacements are now made from current funds.

During the War the plant of the bureau is being operated 24 hours per day, in three shifts of 8 hours each, beginning, respectively, at midnight, 8 a. m. and 4 p. m., overtime work being done by some employees. The cafeteria is open for the purpose of serving meals from 12 midnight to 12.30 a. m., 3 to 4 a. m., 7 to 8 a. m., 11 a. m. to 12.45 p. m., and 5.30 to 7 p. m.

The combined seating capacity of the dining rooms is 900. During the lunch periods in the middle of the working shifts, the employees in different sections are released at 15-minute intervals, so that all may be served during the time. Members of the day force who desire may secure their breakfasts at the period preceding 8 a. m., and when doing overtime work, their dinners after 5.30 p. m.

The service, on the cafeteria plan, is so systematized that 12 persons per minute are served at each of the two series of counters. The kitchen is equipped with excellent appliances, including an electric oven and an improved type of mechanical dishwasher. All preparation of food is done on the premises, including the baking of bread, pies, and cakes. A rather remarkable economy in sugar consumption has been secured by the not uncommon expedient of the abolition of sugar bowls and the substitution of tablespoonful portions put into small paper bags. The amount used daily decreased from 220 pounds to 70 pounds as a result.

The bureau's employees number at present about 7,000, and of these about 5,000 are served daily at the cafeteria with one meal or more. The others carry lunches, since from the nature of the work none of the employees are permitted to leave the building during working hours. Men and women are served at separate counters and eat in separate dining rooms. After lunch the employees may spend any leisure time on the roof gardens, one of which is designated for each sex. Smoking is prohibited throughout the building, but it is permitted on the men's roof garden.

In order to preserve a balance between income and expenses, it is necessary, upon a general advance in prices of supplies, either to in-

crease the price or diminish the portions served. However, the price of certain standard articles has been steadily maintained at 5 cents, including several kinds of sandwiches, pies, puddings, portions of fruit served as desserts, small portions of ice cream, and tea, coffee, cocoa, and milk. The menus provide a "dinner order" for 25 cents. This is served at any of the various meals. A typical one, on a day in June, 1918, includes braised beef, boiled rice or mashed potatoes, 3 slices of bread or 2 pieces of corn bread, 1 pat of butter, and choice of tea, coffee, cocoa, or milk. Included on one or both of two menus at this period as 10-cent orders (without bread or butter) were kidney beans, tripe lyonnaise, goulash, liver and onions, and baked beans; as 5-cent orders, mashed potatoes and gravy, coleslaw, string-bean salad, potato salad, barley soup, bean soup, small order of baked beans, and four slices of bread with one pat of butter.

Many employees of the bureau engaged in mechanical and routine work receive comparatively small wages. Such saving as is effected for their benefit by the elimination of rentals and profits in this cafeteria is therefore likely to be greatly appreciated.

The cafeteria which serves employees of the Post Office Department, as well as those of the City Post Office, is located in the City Post Office building, and the Government furnishes the space, light, original permanent equipment, heat, and steam for steam tables, but not gas for cooking. The restaurant is supervised by an official on behalf of the department. A contract is made with a manager, the present one being a graduate of Cornell in domestic science. The profits up to \$150 a month constitute her compensation; if they fall below this point, her pay is proportionately reduced; if they are greater, part of the remainder is set aside for purchasing equipment, and part is given to the 11 employees of the cafeteria as a gratuity. The cafeteria, which is open from 7 a. m. until 1 p. m., serves about 600 people daily, of whom two-thirds, it is estimated, are employees of the department or the post office and most of the remainder other Government employees. That there is an appreciable saving as well as satisfactory service is borne out by the fact that so many not employed under the department continue to patronize the cafeteria, although an additional fee of 5 cents each is now required of them. Less extensive lunch facilities are found in the Post Office Department building on Pennsylvania Avenue.

In the Interior Department the present arrangement is temporary, as the part of the new building where the permanent cafeteria will be located is not completed. The proposed contract, not yet executed, provides that the department shall furnish quarters, light, heat, and water, oversee the management through a committee, and regulate prices charged for food. Outsiders are admitted at present, while

many from the building go to commercial restaurants. The number served has not been ascertained.

The War Department has provided a large restaurant to accommodate the employees in the group of buildings in the vicinity of Sixth and B Streets. A concession has been given for the operation of this restaurant, but on a basis which limits the private profit to a fixed amount, further earnings being applied to reduce the cost to the consumers. Three meals are served here daily, with a patronage of about 5,000. Space is allowed for four restaurants in the plans for new War Department buildings on Potomac Park at Seventeenth Street.

The Navy Department has no distinctly departmental restaurant. The Corcoran Courts Canteen, largely patronized by its employees, is conducted by the Navy Relief Society.

In the Department of Commerce Building a woman who has a lunchroom elsewhere brings in sandwiches, salads, pies, and hot coffee to one of the rooms during the lunch hour, and serves them at prices said to be remarkably reasonable. At the Bureau of Standards, located outside the city where no commercial lunchrooms are accessible, an association of employees conducts a cafeteria managed similarly to that of the Bureau of Engraving and Printing.

The War Trade Board, at Twentieth and C Streets, is also so far away from restaurants that the location of one in the building is highly convenient. A manager is employed on a salary, and space, light, heat, gas, and equipment are furnished by the board, which supervises the operation of the restaurant. A large percentage of the employees patronize this restaurant, which serves between 900 and 1,000 daily. Some bring the greater part of their lunch, but purchase coffee and desserts. An excellent lunch may be secured for 20 or 25 cents, although the average amount spent per person is 27 cents.

Other offices having restaurants of considerable size are the Interstate Commerce Commission, the Council of National Defense, the Food Administration, and the Fuel Administration. The Smithsonian Institution has a small one.

Quite recently canteen motor trucks have been established by the War Camp Community Service Committee for women clerks, although men are not barred from patronizing them. At lunch time these trucks, with a supply of sandwiches, ice cream, lemonade, etc., are stationed at the corner of Seventeenth and E Streets, on the grounds of the War Risk Insurance Bureau, and at other locations near Government buildings. Speedy service enables the clerks on fine days to enjoy the entire lunch period in the open air under the trees. A similar lunch is furnished in quantities at cost, delivered, to the employees of any office who will arrange for equipment and distribution.

Health.—To safeguard the health of employees, most of the offices have rest rooms for the use of the women. In some of the small

offices first aid is rendered by employees of the office who are physicians and who may be summoned to the rest room in case of need. The larger departments have special rooms for emergency treatment of employees in cases of illness, with physicians and nurses in attendance. In the Government Printing Office and Navy Yard industrial accidents are naturally frequent and emergency facilities have long been maintained.

The most comprehensive program along this line is undoubtedly that of the War Department, which has a dispensary and maintains emergency rooms at the eight principal offices of the department, as follows: State, War, and Navy Building, Ordnance Office, Engineer Corps, Quartermaster Corps, Provost Marshal General's Office, Signal Corps, Military Intelligence Division, Adjutant General's Office. The finely equipped dispensary is located in one of the new buildings on Seventh Street near several of the larger offices. A major in the Medical Reserve Corps is in charge of the dispensary and the emergency rooms, and there are on permanent duty at the dispensary 11 other officers of the Medical Reserve Corps, 3 nurses of the Army Nurse Corps, and 1 sergeant and 4 privates of the Medical Department.

During the month of April, 1918, the number of persons taken care of at the emergency rooms was as follows: Surgical cases, 1,408; surgical dressings, 2,651; medical cases, 2,633; total vaccinations, 15,392; inspection of vaccinations, 1,146; physical examinations, 66; number visited by doctor, 79; sent to hospital, 21; emergency ambulance cases, 14; total, 23,410. During that month an unusual number of vaccinations were made on account of exposures to smallpox in some of the offices. The total cases above, outside of those relating to vaccination, number 6,872; during May the total cases attended to numbered only 7,572; but the vaccinations were comparatively few, so that the number of other cases was very nearly the same. During May the number cared for at the dispensary was: Surgical cases, 515; surgical dressings, 780; medical cases, 1,039; vaccinations, 629; vaccinations outside of dispensary, 805; vaccinations inspected, 429; typhoid inoculations, 55; visited by doctor, 285; physical examinations, 93; small items bring the total up to 4,765. The total cared for at both the emergency rooms and the dispensary during this month was over 12,000.

A visiting nurse system is maintained, and absentees reported from any of the offices are visited, since during the period of high pressure of Government work it is not expected that employees will absent themselves without permission unless they are sick. During April the total number of calls made was 1,256, and 665 persons were found ill. In 75 of these cases treatment was given and a physician called. During May the total calls numbered 1,854, but details are not given in the report available. Twenty-six members

of the Army Nurse Corps are engaged at the emergency rooms and in visiting. The visiting nurse service is particularly important to the newcomers to Washington, most of whom have no family connections and few acquaintances and who often board at a place apart from their lodging.

In addition to a complete program along the above lines, the War Department has inaugurated health education for the benefit of its own employees and all others who may attend, by securing the services of physicians for weekly lectures on health and hygiene and of an expert to carry out measures for the physical welfare of the female employees of the War Department.

Among its accomplishments, not strictly classifiable under health, the Health and Housing Division of the War Department has often given attention to miscellaneous personal problems of the employees which cause worry and undermine efficiency.

Recreation.—The Health and Housing Division of the War Department initiated the movement by which an appropriation of \$10,000 was secured from Congress to open the recreational facilities of the plants at schoolhouses, under the supervision of the community centers for the use of the Government clerks generally. These facilities comprise playgrounds, gymnasiums, swimming pools, athletic fields, auditoriums, and halls for dancing. Community dancing parties are given in the halls, the women of the community acting as hostesses, and the pavements are being utilized for dancing purposes, thus affording opportunity for a larger group to participate.

Arrangements for several summer camps have been made by the recreation committee of the War Camp Community Service, the Y. W. C. A., and others. Health as well as recreation will undoubtedly be secured for as many as can be accommodated in these camps.

The Health and Housing Division encouraged and assisted in the formation of social and recreational clubs in the various units of the War Department. Such clubs had been organized to some extent elsewhere, when the movement was consolidated and reanimated by the calling of a meeting for May 16 of delegates from all the Government divisions. The recreation committee of the War Camp Community Service had been authorized to extend its scope to embrace recreation activities for the civil employees, and had made a survey of all available facilities. Other meetings followed and a permanent organization has been effected under the name of the Government Recreation League. Maj. George P. Ahern, secretary of the War College, is president; Capt. W. C. Deming, of the Welfare Division, Surgeon General's Office, vice president; and Miss Maud M. Miles, of the Ordnance Bureau, secretary. At the first meeting the executive officer of the War Camp Community Service Committee acted as chairman and announced the results of the survey and the aims of

the committee in calling the conference. The cooperation of the agencies controlling recreation facilities, including the Y. M. C. A. and the Y. W. C. A., the community associations, the District of Columbia department of playgrounds, and Federal agencies, was assured.

The survey referred to showed the following facilities: Tennis courts, 28 on municipal playgrounds, 3 on the Y. M. C. A. grounds, 3 on public school grounds, and 13 under Government control, including 10 just opened in Potomac Park; the possible use of certain private school courts; and the courts of four country clubs, available only for members; base-ball fields, 13 public, 2 on playgrounds, 3 miscellaneous; athletic fields, 8; swimming pools, 12; boating, 3 public and 3 private clubs; summer camps, "Camp Columbia," for girls, accommodating 250 at a time; another of the War Camp Community Service for both sexes; and those of the War College, Y. W. C. A., and Girls' Friendly Holiday House; dance halls, several in schools, 2 fraternity halls, 2 in private schools.

A census of employees desiring to get in touch with the various recreational and educational features enumerated on the card which is reproduced herewith was undertaken through the distribution of these cards in all the departments. Opportunity is given for persons with special abilities to indicate their willingness to place them at the service of groups of employees. Complete returns of this registration have not yet been received. The card for the men differs from this one only in the details.

Name.	Dept. bur.	Club.	Home address.	Phone.	Rel. faith—Denom.
I would like to join clubs that will give activity in following lines:					
ATHLETIC.		SOCIAL.		EDUCATIONAL.	
Tennis.		Dancing.		French.	
Field hockey.		Social.		Spanish.	
Field meet events.		Folk.		Current events.	
Military drill.		Glee club.		Literature.	
Swimming.		Orchestra.		Art—Music, dramatic, fine,	
Hikes.		Play production.		and applied.	
.....		.....		Criticism.	
.....		.....		History.	
				Outdoor sketching.	
				First aid.	
				Surgical dressing.	
				War cooking.	
Have you training or ability in following lines, that you would like to use in service or community?					
Leader or instructor:	REMARKS.		Public speaking.	REMARKS.	
Girls' Scouts.			Entertainment:		
Girls' clubs.			Vocalist.		
Surgical dressings.			Instrumentalist.		
Knitting.			Monologist.		
War cooking.			Poster artist.		
First aid.			Press, editorial.		
Sewing.					
Sunday school.					

This card is issued by the District of Columbia War Camp Community Service, located at Nineteenth and G streets. Phone, Main 2928. Please fill out and give this card to person in charge of registration of your bureau.

The desirability of the clubs being independent in the major portion of their activities was emphasized in the discussions. The number taking part in the discussions at all the meetings, especially in the consideration of practical details, has evinced the general interest in the matter.

At a second meeting, held May 23, Mr. Louis I. Doyle, of the Interstate Commerce Commission office, was made chairman of a committee on tennis and Mr. R. C. Cousins, recently instructor in swimming at Cornell, was elected to head a similar committee on swimming.

It is expected that 36 tennis courts in East Potomac Park will be constructed, but these, however, will be very difficult of access until the opening of the ferry next year. Ten courts are to be opened in Rock Creek Park near the reservoir, with a field dressing house for the convenience of the employees. It is also possible that a number of grass courts on public land may be opened at an early date if a small appropriation can be procured to roll them properly and provide nets. Similarly many unused private courts might be restored and grass courts made on vacant lots at little expense. A census of suitable lots is being made by the Boy Scouts, having as a nucleus a list which the District War Garden Committee was able to furnish. The question of closing some of the less busy streets at certain hours and using the street surface for tennis, has been called to the attention of the municipal authorities. Several courts are to be constructed on the grounds of the Soldiers' Home.

Permission to use water for the swimming pools and basin has been secured, and the lack of life guards and instructors has been removed by volunteers among the swimmers in the departments, competent men having offered their services.

Canoeing may be provided for if the committee can meet the offer of the owner of a boathouse which was destroyed by the spring flood, to furnish \$10,000 to purchase canoes and lumber for a new boathouse, the committee to furnish the labor for the construction. This would cost \$6,000, and the only arrangement deemed possible is for the soldiers encamped on the Potomac to do the work, the boathouse to be open to those in military, naval, and civil service.

A social club has been carried on in the State Department for six months, holding monthly meetings with music, speaking, and dancing. Organizations were perfected early in June in the Department of Agriculture and the Interstate Commerce Commission. The former inaugurated its activities by a war savings stamp fête on June 28 on the grounds of the department. The latter club is so well organized that each of the 4,000 employees may be reached quickly and personally in regard to any topic. Numerous picnics and hikes have

been held and are contemplated by departmental groups; and Pierce's Mill in Rock Creek Park, which is located on a popular hiking route, is to be opened as a stand for the sale of ice cream and cold drinks.

Mr. Felix Mahoney, head of the School of Fine and Applied Arts, spoke enthusiastically at one meeting on outdoor sketching and the formation of groups for that purpose, and offered to assist in fostering those interests and to act as an instructor.

The camp for girls on the Conduit Road at the District line, occupied earlier by the National Service School and now named Camp Columbia, was opened June 15. Two hundred and fifty can be accommodated at a time, and applications are received for two weeks or multiples of that period. Fifty army tents with board floors are provided, and in addition there are bathrooms, laundry, mess hall, and a recreation hall with stage. There is ample outdoor space, including several acres planted to provide fresh vegetables. Breakfast and dinner are furnished, and the expense is \$20 for two weeks, or \$35 for four weeks. Instruction in French, first aid, etc., and lectures are provided free of charge, besides which the campers engage in voluntary military drill, and participate in entertainments and outdoor recreation. No uniforms are required or encouraged, though they may be worn. The Y. W. C. A. conducts Vacation Lodge at Cherrydale, Va. It also has a country club for girls, with hockey, volley ball, and other sports, and plans the opening of various estates about Washington for house parties. It is already conducting a class for recreation leaders, which department leaders are invited to attend.

"Community sings" have been held several Sunday afternoons at Central High School, and a patriotic service was held on the evening of June 17 at the same auditorium. Sunday afternoon vesper services are held on the Ellipse, south of the White House. The outdoor Sylvan Theater is utilized for singing and for motion pictures three evenings a week. Department choral clubs may avail themselves of the services of Prof. Peter Dykema, head of the music department of the University of Wisconsin. He has been assigned to Washington for three months, his time to be divided between the community and the 10 smaller military camps in the vicinity, which have no song leaders of their own.

Under the leadership of Mr. E. W. Bond, executive secretary of the committee on church cooperation of the War Camp Community Service, arrangements are being perfected for the much more general opening of the churches for social and recreational activities.

The Recreation League has established an office, located on Fifteenth Street, with the War Department's Health and Housing Division, with a voluntary force of assistants. All information as to

recreational facilities is available there, and the office will issue frequent bulletins of coming activities, to be distributed throughout the Government offices. Three welfare secretaries will be furnished for the civilian work by the War Camp Community Service.

What may be done in a small unit is illustrated by the independent development at the War College. This has been brought about through the efforts of Maj. George P. Ahern, its secretary, and the cooperation of the employees in their club organization. The total number of employees is 140, two-thirds of whom are women. The main features of the welfare activity are open to all employees, regardless of club membership; the emphasis, however, appears to be placed on assisting the women.

A clerk who is engaged on such work that she can leave it at any time keeps on hand a list of several rooms with board. A new clerk is advised to arrive on an early morning train and report at once. She is immediately sworn in, assuring the beginning of her official service on that day. She is then taken about in an automobile with the clerk in charge of the matter until accommodations satisfactory to her are found. Permission is then given her to rest until the following morning, experience having shown that the condition of a person after a long journey is such that no valuable work could be done that day. On the second day the clerk is better prepared for work because of the rest, and in addition has received the initial impression that a spirit of fairness, helpfulness, and interest in individual welfare prevails.

One of the needs earliest felt was that of additional lunch facilities. The War College occupies an isolated location on the Potomac River, at a distance from the city, so that no restaurants are available. Some time ago an indoor mess hall was established, where lemonade and ice cream could be procured to supplement the lunches carried, and this is still maintained. In addition to this an outdoor lunch counter, which may be moved under shelter in inclement weather, has been installed, where sandwiches, fruit, milk or tea, and ice cream and cake are sold at $3\frac{1}{2}$ cents each, 7 tickets being sold for 25 cents. The two kinds of sandwiches to be served are announced the previous day, and each person indicates his choice and the number desired. When the employees are released for lunch, each finds his sandwiches neatly wrapped in waxed paper, with his name attached. This method obviates both delay and mistakes in the number of sandwiches to be prepared. One paid employe is used in connection with the lunch arrangements. The work of attaching tags to packages of sandwiches and attending to the distribution of food and handling of tickets is done by three girl clerks assigned to that duty for a short time preceding and during the lunch period. The

whole matter is closely supervised by the secretary and those in his immediate office. About half the employees still bring lunches and eat them in the interior room referred to, and half utilize the new arrangements.

A small plot of ground is given to each person desiring it for a garden. Several grass tennis courts are in preparation. The bathing beach in front of the War College has been improved, and signals are provided to show when the water is clear and the tide right. Arrangements are made for visiting nurses to call on sick employees. A well-furnished rest room for female employees is furnished at the college.

Finally, a camp located on the Potomac River has been secured through the kindness of the owner, and two buildings there have been fitted as dormitories, respectively, for the men and women, the funds being secured by a motion-picture exhibition. On Saturdays at the close of work all desiring to go are carried to the camp by the War College automobiles from the car line, at Chain Bridge station. Rest and outdoor recreation may be enjoyed, and a phonograph and a dancing platform give opportunity for dancing. The automobiles bring the party back in time for work on Monday morning.

Maj. Ahern's firmly rooted belief that such welfare work is profitable is substantiated by the apparent happiness and contentment of the employees, and by their efficiency in their tasks.

LABOR TURNOVER.

Washington, even in the period before the war, lacked many of the opportunities for recreation found in other cities, and the Government departments generally have been behind progressive employers in providing rest, medical, and lunch facilities; therefore a movement such as that provided by the Government Recreation League and the other agencies cited appears to meet a real need. While an improvement in the stability of the force can not be said to hinge upon the provision or nonprovision of these facilities since many other conditions contribute to the prevailing unrest as, for example, the difficulty of securing good living accommodations at reasonable prices, still, in the recent study of social betterment throughout the country made by the bureau 136 of the 431 companies scheduled stated that an improvement in this regard was due either in whole or in part to their welfare work. In the majority of cases this was only an expression of opinion but in a number it was a statement of the result of an effort to reduce the labor turnover.

It is evident from a study of the following table that an effort should be made to arrive at the reasons for the excessive turnover and that steps should be taken to improve the condition. The

Health and Housing Division of the War Department has received from all the departments and other Government offices in the District statements showing the additions to and subtractions from their forces, by weeks, from March 5 to June 17, 1918.

Summarized these show:

Period covered.	Additions.	Separations.	Net additions.
4 weeks ending Apr. 1.....	6,567	2,450	4,117
4 weeks ending Apr. 29.....	7,529	3,046	4,483
4 weeks ending May 27.....	6,292	3,251	3,041
3 weeks ending June 17.....	4,755	2,413	2,342
Total for 15 weeks.....	25,143	11,160	13,983
Average per week, March.....	1,642	613	1,029
Average per week, April.....	1,882	761	1,121
Average per week, May.....	1,573	813	760
Average per week, June (3 weeks).....	1,585	804	761
Average for 15 weeks.....	1,676	744	932

It appears that during the two earlier of the four periods considered the number separated from the service was less than one-half but more than one-third the number of accessions; during the two latter the separations were more than one-half the additions; and for the entire period the number leaving was 44.4 per cent of the number entering the service. This may be subject to some discount for inclusion of transfers, of withdrawals of persons under civil service entering another department as noncivil-service employees, and possibly of the appointments and termination of service of temporary clerks; but at any rate the percentage is startlingly large. It may be noted that the showing for the last two weeks is the most unfavorable. The Chief of the Health and Housing Division in transmitting the tabulations says:

If the securing and breaking in of every new employee costs the Government \$100, which I believe is a fair estimate, turnover of labor in the District of Columbia is costing the Government \$68,700 per week, or \$3,572,400 per year.

To determine how much of this expense could be obviated by suitable measures is, of course, entirely impossible.

COST OF SOCIAL BETTERMENTS.

In an article on the cost of industrial betterment or welfare work by private employers in the MONTHLY REVIEW for March, 1918 (page 199), statements are made that the costs in the instances studied varied from a fraction of 1 per cent to 5 per cent of the total annual pay roll; and that a fairly comprehensive program could be maintained for about 2 per cent of the annual pay roll.

To get even approximately at the pay roll of the Government in the District of Columbia at the present time is very difficult, since no one

can state exactly the number of civilian employees. Before the declaration of war, from the best data available, the number was estimated to be nearly 40,000. The Civil Service Commission estimates that since that declaration, up to May 1, 1918, nearly 50,000 appointments of all kinds had been made. Appointments are of course still being made rapidly. Making due deduction for separations, etc., during the period, 80,000 seems to be a conservative estimate. To get at the average salary, reference is made to the Official Register for 1917, which states the number appointed from the States and working in the District, as of July 1, 1917, to be 45,706. Taking no account of overtime of pieceworkers in such establishments as the Bureau of Engraving and Government Printing Office, the aggregate salaries of these persons is given as \$54,095,053; the average salary being \$1,183.54. A study of 33,511 employees in the District under the apportioned service on July 1, 1916, excluding postal employees and some others, made by the Bureau of Efficiency, also gives \$1,184 as the average salary. In neither case are percentage bonuses considered. It is highly probable that war conditions have brought about, on the whole, an increase, in addition to the bonuses granted by Congress. For the fiscal year 1919 a flat increase of \$120 to employees receiving \$2,500 or less is allowed, making \$1,250 a minimum estimate of the average annual salary after July 1, 1918. Considering the number of employees therefore to be 80,000, and the average salary \$1,250, gives an annual pay roll of \$100,000,000, which it must be understood, however, is merely a rough approximation. Two per cent of this, the proportion spent by some employers in maintaining a "fairly comprehensive program" of welfare work, amounts to \$2,000,000. If 60 per cent of the estimated cost of labor turnover given above could be saved, it would amount to more than two millions; at the same time, it is probable that all interested in the promotion of welfare would be well satisfied with such an expenditure for that purpose.

The belief of experts on the subject as to the actual increase in efficiency brought about by well-considered welfare work appears from the report of a committee appointed by the District Council of Defense to investigate the matter. On April 20, 1918, this committee made its report to the chairman of the council in the form of a resolution, as follows:

Whereas there is assembled in Washington for war work the greatest force of office workers ever engaged in America upon any single enterprise;

Whereas the outcome of the War and all that it means for the future depends in no small degree upon the efficiency of this force; and

Whereas the Government should in dealing with this force use all the means proved out by private employers for promoting its efficiency, we wish to direct attention

to certain methods for securing efficiency in private industry which should be utilized by the Government to a greater extent than has yet been the case.

* * * * *

For the sake of economy and maximum results, this work should be organized centrally for the whole Government. But until this is possible, we feel that each department should itself develop the work to the fullest extent. It should:

1. Secure the services of a doctor or doctors to give free examinations, advice and emergency treatment. This would in no way interfere with regular medical practice. In calling attention to physical conditions of Government employees needing correction, it would tend if anything to increase the work of the medical profession.

2. Provide rest rooms in all work places where women are employed, with a nurse in attendance wherever more than 250 are employed. For smaller rest rooms, nurses should be assigned for certain hours during the day. Private employers in nearly every State in the Union are required by law to provide rest rooms for women. It would seem that the Government should do at least as well.

3. Provide visiting nurse service to assist employees absent on account of sickness to early recovery and return to work. The need for this is especially great in Washington at present, with thousands of young women away from home, living in boarding houses, with no one to fall back on in case of sickness.

4. Provide trained persons—call them welfare workers or what you like—to give constant attention to the maintenance of proper working conditions and morale among the working force.

5. Provide lunch rooms where employees can get wholesome food at reasonable rates.

6. Take a practical interest in securing wholesome recreational opportunities for employees. This is especially important in Washington at present, with thousands of war workers living in boarding houses, where they lack the normal social life of the home.

We urge this program with the conviction that what makes for efficiency in private business will make for efficiency in the Government, and we know that the things we here urge have been proved by the greatest business concerns of the country to be sound business policy.

It appears that this movement for war efficiency, taking a somewhat belated start, may gain momentum rapidly; and that the thousands of employees doing the highly important work of the Government departments may have their needs cared for, at least in part, by concerted efforts on the part of the employees themselves and their great employer.

CONCILIATION AND ARBITRATION.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, JUNE 17 TO JULY 16, 1918.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices between June 15, 1918, and July 16, 1918, in 143 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JUNE 17, 1918, TO JULY 16, 1918.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, miners, gold mines, Oatman, Ariz.....	400	.....	Adjusted.
Strike, painters, working for Thomas Thomson, Indianapolis, Ind.	15	.....	Do.
Controversy, Ralston Steel Car Co. and machinists, Columbus, Ohio.	9	375	Machinists employed elsewhere at higher rate of pay.
Controversy, Intertype Co. and metal polishers, Brooklyn, N. Y.	8	1,200	Pending.
Controversy, American Cigar Co., New York.....	100	950	Adjusted by War Intelligence Board and New York State Board.
Controversy, Oakwood Railway, Dayton, Ohio.....	.....	.....	Referred to National War Labor Board.
Controversy, Mason Machine Works and employees, Taunton, Mass.	750	.....	Do.
Threatened strike, Corn Products Co. and electrical workers, Argo, Ill.	12	2,500	Do.
Strike, carpenters, Hunt-Spiller Manufacturing Co., South Boston, Mass.	14	.....	Adjusted.
Controversy, Sun Shipyard and marine electrical workers, Chester, Pa.	12	.....	Do.
Strike, garment workers, Miller Manufacturing Co., Fort Worth, Tex.	200	.....	Do.
Strike, telephone operators, Southwestern Telegraph & Telephone Co., Childress, Tex.	9	12	Pending.
Threatened strike, bakers and helpers, Los Angeles, Cal.....	400	200	Do.
Strike, employees of 26 sausage manufacturers, Chicago, Ill.....	4,000	500	Adjusted.
Controversy, Continental Iron & Bolt Co., Chicago, Ill.....	600	.....	Pending.
Controversy, electrical workers and construction division at Camp Kearney and North Island, San Diego, Cal.	25	50	Adjusted.
Controversy, Trenton Street Railway Co., Trenton, N. J.....	250	50	Adjusted without services of commissioner.
Strike, machinists, Jackson-Church Co., Saginaw, Mich.....	100	.....	Referred to National War Labor Board.
Strike, machinists and helpers, Auto Garage, Bloomington, Ill.	60	30	Adjusted.
Threatened strike, St. Louis Fire Department, St. Louis, Mo.	850	.....	Do.
Strike, retail clerks, Bloomington, Ill.....	300	450	Do.
Strike, drug clerks, Bloomington, Ill.....	22	.....	Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JUNE 17, 1918, TO JULY 16, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, asbestos coverers, Philadelphia, Pa. ....	.....	.....	Pending.
Threatened strike, Union Rolling Mills Co., Cleveland, Ohio.	200	600	Adjusted.
Strike, street railway employees, Jacksonville, Fla.	212	.....	Referred to the National War Labor Board.
Threatened strike, cooks and waiters, Fort Worth, Tex.	200	25	Adjusted.
Strike, furnace men, Arkansas Zinc & Smelting Co., Van Buren, Ark.	90	110	Do.
Strike, yard laborers, Arkansas Zinc & Smelting Co., Van Buren, Ark.	110	90	Do.
Strike, Forstman & Huffman Woolen Mills, Garfield, N. J. .	450	2,200	Do.
Strike, Bijou Motor Lighting Co., Hoboken, N. J.	55	800	Do.
Strike, Baltimore Bargain House, Cumberland, Md.	50	35	Pending.
Controversy, Regina Lace Co., Central Falls, R. I. ....	.....	.....	Adjusted.
Controversy, Hansahoe Manufacturing Co., Valley Falls, R. I.	.....	.....	Do.
Lockout, American Tobacco Co., Louisville, Ky.	80	3,000	Do.
Controversy, Star Piano Co., Richmond, Ind. ....	.....	.....	Pending.
Strike, shipyard, Jas. Shewan & Sons (Inc.), New York.	1,000	4,000	Do.
Controversy, meat packers, Allegheny County, Pa.	800	.....	Referred to National War Labor Board.
Strike, machinists, Curtiss Aeroplane & Motor Co., Buffalo, N. Y.	300	15,000	Adjusted.
Threatened strike, chain makers, James McKay Co., Pittsburgh, Pa.	700	.....	Pending.
Strike, machinists and tool makers, 10 machine shops, New York, and Brooklyn, N. Y.	912	90	Adjusted.
Strike, retail clerks, East St. Louis, Ill. ....	.....	.....	Pending.
Strike, machinists, Brierly Machine Co., Cleveland, Ohio. .	30	60	Plant reported operating to full capacity; company declined mediation; declared situation entirely satisfactory.
Threatened strike, B. F. Sturtevant Blower Co., Hyde Park, Mass.	430	1,760	Adjusted.
Strike, Naumkeag Steam Cotton Co., Salem, Mass.	600	1,150	Employees accepted advance of 10 per cent increase offered by company, and difference between the 10 per cent and demands made by employees to be referred to State board of arbitration. Men returned to work.
Controversy, ship carpenters, Biloxi, Miss.	200	.....	Adjusted.
Controversy, Ohio State Power Co., Fremont, Ohio.	5	25	Do.
Strike, Rice Bros.' shipyard, East Boothbay, Me.	40	100	Do.
Controversy, Badger State Tannery, Sheboygan, Wis.	551	560	Do.
Controversy, American Hide & Leather Co., Sheboygan, Wis.	350	.....	Do.
Controversy, Kokomo Steel & Wire Co., Kokomo, Ind.	20	1,200	Do.
Strike, building trades, Cincinnati, Indianapolis & Western R. R. Co., Indianapolis, Ind.	50	200	Do.
Controversy, Bass Foundry & Machine Co., Fort Wayne, Ind.	85	.....	Pending.
Controversy, New Orleans Light, Power, Street Railway & Gas Cos., New Orleans, La.	3,000	.....	Adjusted.
Controversy, calkers, shipyards, Orange, Tex. ....	.....	.....	Pending.
Controversy, Sumner Iron Works, Everett, Wash.	76	300	Unable to adjust.
Threatened strike, transfer and baggage men, Los Angeles, Cal.	70	35	Adjusted.
Threatened strike, electrical workers, Ohio River Power Co., Steubenville, Ohio.	10	9	Do.
Controversy, Steubenville, East Liverpool & Beaver Valley Traction Co. and linemen, Steubenville, Ohio.	2	.....	Do.
Strike, electrical linemen and station employees, employed by electric light companies in eastern Massachusetts.	800	.....	Pending.
Controversy, Pattern Makers Interstate Association and pattern makers, 10 firms, Cleveland, Ohio.	150	.....	Adjusted.
Controversy, Standard Foundry Co., Racine, Wis.	90	100	Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JUNE 17, 1918, TO JULY 16, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, Globe Seamless Steel Tube Co., Milwaukee, Wis....	24	300	Adjusted. Men agreed to return to work on condition that if the local lodges could not enter into an agreement with company before July 15 the matter would be presented to the National War Labor Board.
Controversy, National Enameling & Stamping Co., St. Louis, Mo.	300	50	
Controversy, Athletic Mining & Smelting Co., Fort Smith, Ark.	100	100	Adjusted.
Controversy, Fort Smith Smelter Co., Fort Smith, Ark.....	80	20	Do.
Controversy, Exposition Cotton Mills, Atlanta, Ga.....	30	970	Mills in operation, the company claiming they have all the labor required to operate the mills.
Controversy, American Sheet & Tin Plate Co., Elwood, Ind.	3	1,600	Adjusted.
Controversy, machinists and boiler makers, Salt Lake City, Utah; at Galligher Machinery Co., Salt Lake Iron & Steel Co., American Foundry & Machinery Co., Davis-Howe Co., Lundine & May Foundry Co., Western Heating & Sheet Metal Works, Western Stove & Foundry Works, and four minor firms.	530	.....	Do.
Strike, Riddell Bros., Atlanta, Ga.....	10	10	President of company absolutely declined to concede demands made by machinists, especially closed shop but offered to pay as high rate of wages as obtains in Atlanta.
Controversy, Cleveland Chain Co., Cleveland, Ohio.....	40	.....	Pending.
Threatened strike, Omaha & Council Bluffs Street Car Co.	800	140	Referred to National War Labor Board.
Strike, machinists, American-British Co., Bridgeport, Conn.	4,000	30,000	Do.
Threatened strike, Aluminum Goods Manufacturing Co., Two Rivers, Wis.	75	561	Adjusted.
Threatened strike, stonemasons and bricklayers, Turner Construction Co., Washington, D. C.	100	35	Do.
Strike, teamsters, Leavenworth, Kans.....	.....	.....	Pending.
Controversy, gypsum-mill workers, Fort Dodge, Iowa.....	.....	.....	Do.
Controversy, Standard Oil Co. and boiler makers, Chicago, Ill., and Whiting, Ind.	.....	.....	Do.
Controversy, Klieber & Dawson Co., and machinists, Indianapolis, Ind.	75	.....	Do.
Strike, boiler makers, Midwest Refining Co. and Standard Oil Co., Casper, Wyo.	70	900	Adjusted.
Controversy, elevator operators, San Francisco, Cal.....	.....	.....	Pending.
Controversy, American Sheet & Tin Plate Co., New Castle, Pa.	800	2,200	Adjusted.
Controversy, Heinz Pickle Co., Henderson, Ky.....	50	.....	Do.
Threatened strike, A. M. Byers Co., Girard, Ohio.....	700	400	Referred to National War Labor Board.
Strike, carpenters on grain elevators, American Milling Co., Peoria, Ill.	150	600	Adjusted.
Strike, weavers, Katterman Silk Mill, Passaic, N. J.....	42	60	Do.
Strike, freight handlers, Oregon-Washington Railroad & Navigation Co., Portland, Oreg.	100	.....	Do.
Controversy, miners, Blossburg Coal Co., Blossburg, Pa.....	.....	.....	Do.
Controversy, miners, Blossburg Co., East Boston, Mass.....	14	500	Do.
Strike, teamsters and chauffeurs, Kankakee, Ill.....	240	1,000	Do.
Controversy, Hamilton Manufacturing Co., Two Rivers, Wis.	65	550	Do.
Controversy, F. Eggers Veneer Seat Co., Two Rivers, Wis..	45	184	Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JUNE 17, 1918, TO JULY 16, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, Wausau Southern Lumber Co., Laurel, Miss.	200	1,800	Adjusted.
Threatened strike, J. E. Decker & Sons' packing house, Mason City, Iowa.	550	.....	Do.
Strike, leather workers, National Leather Belting Co. and five other companies, New York.	100	.....	Do.
Strike, boiler makers, machinists, and helpers, contract and machine shops, Pueblo, Colo.	23	12	Do.
Threatened strike, Marinette & Menominee Paper Co., Marinette, Wis.	280	384	Do.
Strike, paper-mill workers, Oregon City, Oreg.	.....	.....	Pending.
Threatened strike, machine-shop workers, Rockford, Ill.	1,000	.....	Do.
Threatened strike, Houston Packing Co., Houston, Tex.	230	60	Do.
Controversy, electrical workers on docks, Duluth, Minn., and Superior, Wis.	.....	.....	Do.
Threatened strike, Koenig's Plating Mills, Two Rivers, Wis.	322	324	Adjusted.
Controversy, Quaker Oats Co. and machinists, Cedar Rapids, Iowa.	.....	.....	Pending.
Lockout, garment workers, M. E. Smith & Co., Omaha, Nebr.	40	400	Commissioner recommends investigation of facts by Investigation and Inspection Service.
Controversy, vegetable handlers, Omaha, Nebr.	19	.....	Negotiations between parties had not been broken off, and commissioner believed they could settle their own affair.
Controversy, United States Gypsum Co., Port Clinton, Ohio.	3	200	Adjusted.
Strike, machinists, Olsen Co., Philadelphia.	.....	.....	Pending.
Controversy, plasterers and building contractors, Fort Wayne, Ind.	60	300	Adjusted.
Controversy, machinists, Newark, N. J.	.....	.....	Pending.
Walkout, Olympia Steel Works, Seattle, Wash.	50	.....	Nonunion crew has been secured and plant is working normal capacity. Company on unfair list, but no trouble at plant.
Threatened strike, carmen, Southern Pacific Railway Co., New Orleans, La.	400	.....	Adjusted.
Strike, Portable Elevator Manufacturing Co., Bloomington, Ill.	60	.....	Do.
Strike, street-car motormen and women conductors, Kenosha, Wis.	47	.....	Do.
Threatened strike, wet-washing laundry workers, Seattle, Wash.	100	.....	Do.
Strike, Tinius Olsen Testing Machine Co., Philadelphia, Pa.	125	175	Pending.
Strike, Amoskeag Manufacturing Co. and Stark Mills, Manchester, N. H.	8,000	20,000	Adjusted.
Strike, textile workers, Lowell, Mass.	.....	.....	Adjusted by Massachusetts Public Safety Commission.
Controversy, Garfield Smelting Co., Garfield, Utah.	.....	.....	Pending.
Lockout and strike, Nonnabo Chemical Co., East Providence, R. I.	260	700	Referred to the National War Labor Board.
Controversy, carpenters, Asheville, N. C.	.....	.....	Pending.
Strike, meter readers, People's Gas Light Co., Chicago, Ill.	118	4,900	Adjusted.
Controversy, Canton Sheet Steel Co., Canton, Ohio.	.....	.....	Do.
Threatened strike, foundry employees, American Locomotive Co., Schenectady, N. Y.	400	300	Pending.
Controversy, molders, Grand Rapids, Mich.	200	.....	Adjusted.
Controversy, packing teamsters, Kansas City, Mo.	.....	.....	Pending.
Controversy, laundry workers, Leavenworth, Kans., and Kansas City, Mo.	.....	.....	Do.
Controversy, Lombards Iron Works, Augusta, Ga.	100	.....	Adjusted.
Controversy, American Locomotive Works, Richmond, Va.	.....	.....	Do.
Strike, National Enameling & Stamping Co., Granite City, Ill.	2,600	4,500	Pending.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JUNE 17, 1918, TO JULY 16, 1918—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Lockout, Boynton Refining Co., Boynton, Okla.....	20	15	Adjusted.
Strike, Kaw Boiler Works, Kansas City, Mo.....	.....	.....	Pending.
Controversy, Ottumwa Co., Ottumwa, Iowa.....	.....	.....	Do.
Controversy, Warner Gear Co. and pattern makers, Muncie, Ind.	4	1,500	Adjusted.
Controversy, Muncie Foundry & Machine Co., pattern makers, Muncie, Ind.	20	380	Do.
Controversy, Rosenwald & Weil Co. and raincoat makers, Chicago, Ill.	550	.....	Company refused to reinstate employees who were discharged. Men will remain at work.
Controversy, Albany Car Wheel Co. and foundry employees, Albany, N. Y.	100	125	Pending.
Controversy, Driver-Harris Co., Trenton, N. J.....	.....	.....	Do.
Controversy, foundries, Brooklyn, N. Y.....	.....	.....	Do.
Controversy, Baltimore & Ohio R. R. Co. and boiler makers, Washington, D. C.	18	.....	Adjusted.
Strike, composition roofers employed by 20 firms, Boston, Mass.	110	.....	Do.
Controversy, Hoover-Owen & Rentschler Co., Hamilton, Ohio.	.....	.....	Do.
Controversy, Traction Co. and linemen, Fairmont, W. Va.	65	240	Do.
Controversy, Gainesville & Northwestern Ry., Gainesville, Ga.	.....	.....	Pending.
Controversy, Cleveland Construction Co., Camp Perry, Ohio.	.....	.....	Do.
Threatened strike, American Tobacco Co., Louisville, Ky.	.....	.....	Do.
Controversy, machinists, Connersville Blower Co., Connersville, Ind.	.....	.....	Do.
Controversy, P. H. & F. M. Roots Co. and machinists, Connersville, Ind.	.....	.....	Do.
Strike, Wickwire Steel Co., Buffalo, N. Y.....	.....	.....	Do.
Strike, carpenters, Turner Construction Co., Washington, D. C.	132	.....	Do.
Controversy, Cummings Leather Co., Woburn, Mass.....	.....	.....	Do.
Controversy, express agents and employees on routes out of Kansas City, Mo.	.....	.....	Do.
Lockout, Ehman Tire & Rubber Co., Chicago, Ill.....	80	400	Referred to the National War Labor Board.
Controversy, boiler makers and others, Ames Iron Works, Oswego, N. Y.	.....	.....	Pending.
Controversy, leather workers, A. C. Lawrence Leather Co., Peabody, Mass.	.....	.....	Do.
Controversy, painters, Indianapolis, Ind.....	28	.....	Adjusted.
Controversy, textile workers, Rhode Island.....	.....	.....	Pending.
Threatened strike, stockyards, St. Paul, Minn.....	.....	.....	Do.
Lockout, S. Engle Garment Factory, Glen Lyon, Pa.....	.....	.....	Do.
Controversy, Standard Tin Plate Mills, Canonsburg, Pa.....	.....	.....	Do.
Walkout, Standard Wheel Co., Terre Haute, Ind.....	.....	.....	Do.
Strike, steam fitters, Virginia Shipbuilding Corp., Alexandria, Va.	25	.....	Adjusted.
Controversy, steam fitters and plumbers, Standard Engineering Co., Cincinnati, Ohio.	.....	.....	Pending.
Controversy, bridge operators and inside wiremen, Milwaukee, Wis.	.....	.....	Do.
Controversy, teamsters, Peoria, Ill.....	(1)	.....	Do.
Threatened strike, United Boiler, Heating & Foundry Co., Hammond, Ind.	.....	.....	Do.
Controversy, Elwood, Ind.....	.....	.....	Do.
Strike, shoe cutters, Brockton, Mass.....	.....	.....	Do.
Controversy, Smith & Wesson Co., Springfield, Mass.....	.....	.....	Do.
Controversy, barbers, Atlanta, Ga.....	.....	.....	Do.
Controversy, Sterling Products Co., Evansville, Ind.....	.....	.....	Do.
Threatened strike, machinists, Indianapolis, Ind.....	.....	.....	Do.
Controversy, Maytag Co. and machinists, Newton, Iowa.....	.....	.....	Do.
Controversy, electrical workers, Fort Wayne, Ind.....	.....	.....	Do.
Controversy, various large factories, Kewanee, Ill.....	.....	.....	Do.
Controversy, River Terminal Ry. Co., Cleveland, Ohio.....	.....	.....	Do.
Controversy, Morrell & Co., Ottumwa, Iowa.....	.....	.....	Do.
Threatened strike, General Electric Co., Lynn, Mass.....	.....	.....	Do.

¹ All in the city of Peoria.

The following cases noted as pending in the June statement have been disposed of:

- Controversy, machinists, American Laundry Co., Rochester, N. Y.
- Controversy, coppersmiths, Jos. Kopperman & Sons, Philadelphia, Pa.
- Threatened strike, Tredegar Iron Works, Richmond, Va.
- Controversy, metal polishers, Rochester Stamping Co., Rochester, N. Y.
- Controversy, metal polishers, Bastonia Co., Rochester, N. Y.
- Strike, plumbers and steamfitters, Rochester, N. Y.
- Controversy, teamsters, Schenectady, N. Y.
- Controversy, Kewanee Boiler Works, Kewanee, Ill.
- Strike, furnace men, National Zinc Co., Bartlesville Zinc Co., and Lanyon-Starr Co., Bartlesville, Okla.
- Controversy, Briggs & Stratton Co., Milwaukee, Wis.
- Controversy, Jackson Iron & Steel Co., Star Furnace Co., and Globe Iron Co., Jackson, Ohio.
- Controversy, Standard Foundry Co., Racine, Wis.
- Strike, Toledo Foundry Co., Toledo, Ohio.
- Strike, Central Leather Co. (C. N. Allen Sons Co.), Kenosha, Wis.
- Strike, Western Union Overall Mfg. Co., Kansas City, Mo.
- Controversy, Baker Bros. Foundry & Machine Co., Toledo, Ohio.
- Strike, Howe Scales Co., Rutland, Vt.
- Controversy, live-stock handlers, stock yards, Fort Worth, Tex.
- Walkout, Barker Works, Greenbay, Wis.
- Controversy, Werner & Pfeleiderer Co., S. Fair & Sons, Wickes Bros., Stork Motor Co., F. A. Bartlett & Co., Nelson Bros., Mitts & Merrill Foundry Co., Valley Gray Iron & Foundry Co., Jackson & Church Mfg. Co., and molders, Saginaw, Mich.

CONCILIATION AND ARBITRATION IN GREAT BRITAIN.¹

The following report on conciliation and arbitration, made under date of January 31, 1918, to the Right Hon. David Lloyd-George, prime minister, by the committee on relations between employers and employed of the British Ministry of Reconstruction, has just been published in printed form. This report opposes compulsory arbitration and advocates an extension of voluntary machinery for the adjustment of disputes, stating, however, at the same time that they "do not think that there should be any compulsory power of delaying strikes and lockouts." The committee further recommends the establishment of a standing arbitration council for cases where parties wish to refer disputes to arbitration. Following is the complete text of the report:

We believe that the recommendations made in our earlier reports for the establishment of industrial councils will provide facilities for full and free discussion of matters affecting the several industries and so improve the relations between employers and employed. We have thought it necessary, however, to give some attention to the cases in which the parties may desire voluntarily to refer some difference that has arisen to arbitration or conciliation. But it must be understood that we do not intend to express any views on the extent to which disputes can be equitably or satisfactorily settled in this way. As regards arbitration, our sole concern in this report is with the

¹ Great Britain. Ministry of Reconstruction. Committee on relations between employers and employed. Report on conciliation and arbitration. London, 1918. 5 pp. Cd. 9081.

question of the machinery to be provided when it is the expressed wish of both parties, for any reason, to have recourse to it.

2. We are opposed to any system of compulsory arbitration; there is no reason to believe that such a system is generally desired by employers and employed, and, in the absence of such general acceptance, it is obvious that its imposition would lead to unrest. The experience of compulsory arbitration during the War has shown that it is not a successful method of avoiding strikes, and in normal times it would undoubtedly prove even less successful. Disputes can only be avoided by agreement between employers and workers and by giving to the latter the greater measure of interest in the industry advocated in our former reports; but agreement may naturally include the decision of both parties to refer any specified matter or matters to arbitration, whether this decision is reached before or after a dispute arises.

3. For the same reason we do not recommend any scheme relating to conciliation which compulsorily prevents strikes or lockouts pending inquiry. But it is obviously possible and desirable that in some instances arrangements should be voluntarily made in organized trades for holding an inquiry before recourse to extreme measures; and we suggest that the Ministry of Labor should be authorized to hold a full inquiry when satisfied that it was desirable, without prejudice to the power of the disputing parties to declare a strike or lockout before or during the progress of the inquiry.

4. It is important that it should be clearly understood that we do not contemplate the imposition of an elaborate system of conciliation and arbitration upon industry, in place of the present well-recognized voluntary conciliation and arbitration machinery which exists in so many of the important trades of the country. On the contrary, we desire to emphasize the advisability of a continuance, as far as possible, of the present system whereby industries make their own agreements and settle their differences themselves.

5. The extent to which machinery for the conciliatory adjustment of disputes exists in the important trades of this country is one of the most marked features of its industrial organization, and the valuable work that has been done by the numerous conciliation and arbitration boards in the past has rendered it possible for the State to remain very much in the background. There seems no reason to suppose that after the war these boards will not continue to work effectively, and it may be (especially in so far as they may become merged in or correlated with the joint industrial councils, whose establishment the committee have recommended) that they will achieve an even large degree of success in securing the settlement of points that may arise between employers and employed, when regular joint meetings, apart from any disputes, have been established, and their benefit experienced.

6. It is desirable, however, to consider the part that should be taken by the State in the event of those directly concerned in industry being unable to adjust their differences themselves. The interest of the community may require that there should be an unbiased and independent examination of the facts and circumstances connected with any dispute between employers and employed. On this point the committee have had under consideration the Canadian Industrial Disputes Investigation Act, and the report on the working of that act made by Sir George Askwith [Cd. 6603]. They have also had under consideration the recommendations contained in the report of the industrial council [Cd. 6952 of 1913].

The committee indorse the view that there should be means by which an independent inquiry may be made into the facts and circumstances of a dispute and an authoritative pronouncement made thereon, although this does not carry with it any compulsory power of delaying strikes or lockouts.

7. Section 2 (1) (a) of the Conciliation Act, 1896, empowers the Ministry of Labor to cause an inquiry to be held into the facts and circumstances of dispute. Presumably the existing act empowers the Ministry of Labor to publish reports made as a result of inquiries of this character, but, if not, the necessary power should be obtained, so

that there may be immediate publication, for the information of those affected by the dispute and of the public generally, of an independent and authoritative account of the matters in difference.

The question whether these powers should be exercised in respect of particular cases is one which must be left to the discretion of the Government department concerned.

8. Arbitration being recognized as an appropriate method whereby the parties to industrial differences may voluntarily seek to have those differences adjusted, it is necessary to consider what form of arbitration tribunals are calculated to command the confidence of those who may appeal to them. Under the Conciliation Act the usual form of arbitration tribunal was the "single arbitrator," an independent person appointed by the Board of Trade sitting as sole judge except in cases where the points in dispute necessitated the assistance of technical assessors. Courts of arbitration (an employer's representative, a workmen's representative, and an independent chairman) were established in 1908, but comparatively few cases are referred to this form of tribunal.

9. Under the Munitions of War Act, in addition to single arbitrators and courts of arbitration, two other forms of tribunal were established—the committee on production and the special arbitration tribunal for women's wages. The committee on production consisted of three independent persons appointed by the Government, and the majority of the disputes referred to arbitration during the War other than those affecting the wages of women on munitions work have been settled by that tribunal. Its personnel has recently been changed and it is now constituted on lines similar to a court of arbitration, except that its members hold continuous office and are not appointed ad hoc. The special arbitration tribunal for women's wages consists of an independent chairman and members chosen either for their official experience or their special knowledge of the interests of employers and workpeople, respectively.

10. As arbitrations affecting the same trade or section of trades may recur, there are advantages to both employers and workpeople in knowing that the tribunal to which they submit any differences which they may have failed themselves to settle is one to which previous differences have been submitted, and which therefore has become to some extent familiar with the conditions of the trade.

11. For these reasons it would appear desirable that there should be a standing arbitration council on the lines of the present temporary committee on production to which differences of general principles and differences affecting whole industries or large sections of industries may be referred in cases where the parties have failed to come to an agreement through their ordinary procedure, and wish to refer the differences to arbitration.

Such tribunal should include in its membership persons who have practical experience and knowledge of industry, and who are acquainted with the respective standpoints of employers and workpeople.

12. There are, however, certain administrative difficulties connected with the utilization of tribunals of three or more persons, particularly where the parties desire that their case should be heard locally, and where the matter is one of relatively small importance, and it is desirable that suitable persons should be available to act as single arbitrators where the parties agree to submit their case to a single arbitrator. Persons possessing experience of industrial conditions and acquainted with industrial and workshop life, including representatives of labor, would seem the most likely to command the respect and confidence of the parties. It will be obvious that the efficiency of an arbitrator, provided that he possesses the right personal qualifications, increases with practice and the study of the conditions with which he has to deal.

13. The question whether, and if so, by what means, awards of single arbitrators should be coordinated with the more general awards of the standing arbitration council is one of considerable difficulty, as there are important reasons why the several awards should not conflict.

The experience which has been gained of the various forms of arbitration tribunals suggests that there are great advantages to all parties in facilitating coordination of

decisions. Conflicting decisions given by different tribunals are bound to cause dissatisfaction to one or other party. With the object of avoiding such conflict as much as possible it is of paramount importance that the department charged with the appointment of arbitrators should be in a position to insure that the several arbitrators should have opportunities of interchanging views and experiences. The means to insure reasonable coordination should be provided through the secretariat of the standing arbitration council. The awards and decisions of that council would be circulated among the single arbitrators who would thus be kept in touch with the more general and comprehensive cases.

14. In order that there might be the requisite differentiation between questions of general importance or principle and questions of comparatively less importance, the department responsible for referring cases of arbitration should pass all cases to the secretariat of the standing arbitration council. The secretariat should include a highly trained staff with experience of industry and knowledge of arbitration work so that proper differentiation would be made between the various cases and, subject to the concurrence of the parties, the several cases referred to the form of tribunal most competent to deal with them to the satisfaction of those concerned.

15. The question whether awards and agreements should be made enforceable by means of monetary or other penalties was examined exhaustively by the industrial council in an inquiry commenced in 1912, and the committee concur generally in the views expressed in the report made by the council in 1913 [Cd. 6952] to the effect that, while it is to the interests of both employers and workpeople and the community generally that industrial agreements should be duly fulfilled, in the long run this object is more likely to be secured by an increased regard for moral obligation, respect for an instructed public opinion, and reliance on the principles of mutual consent rather than by the establishment of a system of monetary penalties.

16. Our conclusions, therefore, are that (a) whilst we are opposed to any system of compulsory arbitration, we are in favor of an extension of voluntary machinery for the adjustment of disputes. Where the parties are unable to adjust their differences we think that there should be means by which an independent inquiry may be made into the facts and circumstances of a dispute, and an authoritative pronouncement made thereon, though we do not think that there should be any compulsory power of delaying strikes and lockouts; (b) we further recommend that there should be established a standing arbitration council for cases where the parties wish to refer any dispute to arbitration, though it is desirable that suitable single arbitrators should be available where the parties so desire.

We have the honor to be, sir, your obedient servants,¹

J. H. WHITLEY, *Chairman.*

F. S. BUTTON.

S. J. CHAPMAN.

G. H. CLAUGHTON.

J. R. CLYNES.

F. N. HEPWORTH.

WILFRID HILL.

J. A. HOBSON.

H. J. WILSON,

A. GREENWOOD,

Secretaries.

31ST JANUARY, 1918.

A. SUSAN LAWRENCE.

MAURICE LEVY.

J. J. MALLON.

THOS. R. RATCLIFFE-ELLIS.

ALLAN M. SMITH.

D. R. H. WILLIAMS.

MONA WILSON.

¹ One member of the committee, Mr. Robert Smillie, was unable to attend any of the meetings at which this report was considered and therefore does not sign it. Another member, Mr. Allan M. Smith, has not signed the report, but makes the following statement: "Without expressing any opinion on the views contained in the arbitration report of the committee, I have refrained from signing the report because I consider that the subject dealt with is one which, unprejudiced by any pronouncement of the committee, should be left to the free discussion and consideration of the employers and workpeople in each branch of industry."

LABOR BUREAUS.

PROJECTED LABOR BULLETIN FOR BRAZIL.

The American vice consul at Rio de Janeiro reports, in a communication referred by the State Department to this bureau, that a bill has been introduced in the Brazilian Congress providing for the publication of a quarterly labor bulletin to begin with the date of the definite organization of the National Department of Labor, the purpose being to furnish a medium for the exchange of information regarding questions of labor and similar subjects. Continuing, the vice consul notes that—

The expenses of publishing this bulletin are to be paid for out of a fund of 25 contos (about \$6,250 in American currency), which the National Department of Labor shall reserve from the revenues derived from the Brazilian agricultural colonies.

Besides the information which the Department of Labor considers suitable to print in this bulletin, it is proposed to make the publication of the following subjects obligatory: (1) Labor statistics; (2) labor laws; (3) decrees which promulgate these laws; (4) judicial decisions regarding labor questions; (5) congressional proceedings on questions of labor; (6) memorials, conferences, monographs, and other data pertaining to these subjects and especially to trade-unions.

It is also proposed that one section of this bulletin be devoted to answering requests for information concerning statistics and labor legislation of all nations of the American Republics.

IMMIGRATION.

IMMIGRATION IN MAY, 1918.

The number of immigrant aliens admitted into the United States during the year 1917, as compared with the number admitted during the year 1916, decreased 56.9 per cent. During 1917 the decrease from the preceding month for January, February, and March was 19.9, 22.3, and 19.4 per cent, respectively. For April, however, the number of immigrant aliens admitted showed an increase of 32.3 per cent over the number admitted in March. As compared with April, the figures of May showed a decrease of 48.9 per cent. The figures for June indicated an increase of 5.5 per cent over those for May. During July only 9,367 immigrant aliens were admitted. As compared with the figures for July, those for August showed an increase of 7.3 per cent. In September the number fell to 9,228, or 139 smaller than the number admitted in July. As compared with August, the figures for September showed a decrease of 8.2 per cent. In October there was an increase over the September arrivals of 57, or 0.6 per cent. The admissions in November numbered only 6,446, a decrease of 30.6 per cent from the number admitted in October. In December there was an increase of 8.4 per cent. In January, 1918, there was a decrease of 9 per cent as compared with December, 1917. February, however, showed an increase over January of 16.2 per cent, while March as compared with February showed a decrease of 11.9 per cent. April as compared with March showed an increase of 46.7 per cent, and May as compared with April, an increase of 59.5 per cent.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS,
1913 TO 1918.

Month.	1913	1914	1915	1916	1917	1918	
						Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	6,356	19.0
February.....	59,156	46,873	13,873	24,740	19,238	7,388	16.2
March.....	96,958	92,621	19,263	27,586	15,512	6,510	11.9
April.....	136,371	119,885	24,532	30,560	20,523	9,541	46.7
May.....	137,262	107,796	26,069	31,021	10,487	15,217	59.5
June.....	176,261	71,728	22,598	30,764	11,095	.....	.....
July.....	138,244	60,377	21,504	25,035	9,367	.....	.....
August.....	126,180	37,706	21,949	29,975	10,047	.....	.....
September.....	136,247	29,143	24,513	36,398	9,228	.....	.....
October.....	134,440	30,416	25,450	37,056	9,285	.....	.....
November.....	104,671	26,298	24,545	34,437	6,446	.....	.....
December.....	95,387	20,944	18,901	30,902	6,987	.....	.....

¹ Decrease.

Classified by nationality the number of immigrant aliens admitted into the United States during specified periods and in May, 1918, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN MAY, 1918, BY NATIONALITY.¹

Nationality.	Year ending June 30—			July, 1917, to May, 1918.	May, 1918.
	1915	1916	1917		
African (black).....	5,660	4,576	7,971	5,244	728
Armenian.....	932	964	1,221	218	20
Bohemian and Moravian.....	1,651	642	327	67	5
Bulgarian, Serbian, Montenegrin.....	3,506	3,146	1,134	130	25
Chinese.....	2,469	2,239	1,843	1,536	139
Croatian and Slovenian.....	1,942	791	305	32	2
Cuban.....	3,402	3,442	3,428	1,077	99
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	12	1
Dutch and Flemish.....	6,675	6,443	5,393	1,993	158
East Indian.....	82	80	69	55	3
English.....	38,662	36,168	32,246	11,603	1,467
Finnish.....	3,472	5,649	5,900	1,744	93
French.....	12,636	19,518	24,405	6,135	654
German.....	20,729	11,555	9,682	1,867	142
Greek.....	15,187	26,792	25,919	2,489	87
Hebrew.....	25,497	15,108	17,342	3,483	216
Irish.....	23,593	20,636	17,462	4,147	499
Italian (north).....	10,660	4,905	3,796	985	95
Italian (south).....	46,557	33,909	35,154	5,070	273
Japanese.....	8,609	8,711	8,925	9,441	1,155
Korean.....	146	154	194	148	2
Lithuanian.....	2,638	599	479	116	10
Magyar.....	3,604	981	434	30	
Mexican.....	10,993	17,198	16,438	11,573	6,574
Pacific Islander.....	6	5	10	17	7
Polish.....	9,065	4,502	3,109	624	35
Portuguese.....	4,376	12,208	10,194	2,272	105
Roumanian.....	1,200	953	522	152	9
Russian.....	4,459	4,858	3,711	1,322	115
Ruthenian (Russniak).....	2,933	1,385	1,211	45	4
Scandinavian.....	24,263	19,172	19,596	8,023	670
Scottish.....	14,310	13,515	13,350	4,619	586
Slovak.....	2,069	577	244	30	1
Spanish.....	5,705	9,259	15,014	6,655	763
Spanish-American.....	1,667	1,881	2,587	1,994	254
Syrian.....	1,767	676	975	193	9
Turkish.....	273	216	454	19	1
Welsh.....	1,390	983	793	243	24
West Indian (except Cuban).....	823	948	1,369	683	160
Other peoples.....	1,877	3,388	2,007	280	27
Total.....	326,700	298,826	295,403	96,371	15,217

¹ The total number of departures of emigrant aliens in May was 12,517.

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

CALIFORNIA.—*Industrial Accident Commission. Bulletin No. 7, relating to safeguards against injury in mines, March, 1918. Sacramento. 48 pp. Illustrated.*

This bulletin is issued in cooperation with the United States Bureau of Mines. The suggestions relative to safeguards against injury are preceded by a memorandum of mine accident data during the year 1916. Notes and illustrations are given on Care of the injured; Mine rescue apparatus; Fencing abandoned shafts; Rails and machinery guards; Waste dump tracks; Sanitation, bath facilities, drinking water; Timbering and pillars; Openings under foot; Shaft protection; Miner's lights; Inflammable material; Surface mine magazines; Underground mine magazine; Caps and fuse; Check-in and check-out system; Protection of mines from fire; Shaft headframes; Transformers; Underground trolley.

ILLINOIS.—*Board for Vocational Education. Bulletin No. 1. Statement of plans and policies. 69 pp. Bulletin No. 2. Information desired in application for approval of plans for vocational instruction in trades and industries. 11 pp. Bulletin No. 3. Information desired in application for approval of plans for instruction in vocational agriculture. 10 pp. Bulletin No. 4. Information desired in application for approval of plans for instruction in vocational home economics. 11 pp. Bulletin No. 8. Six months directed or supervised practice in agriculture. 23 pp. Springfield, 1918.*

KENTUCKY.—*Department of Education. State board for vocational education. Statement of plans and policies. Bulletin. January, 1918. Frankfort. 37 pp.*

Gives Kentucky's plans for administering the Smith-Hughes act and includes the statement of certain requirements to be met by schools desiring to participate in the Federal aid for agricultural instruction and courses of study for such schools.

MASSACHUSETTS.—*Ninth annual report of the board of commissioners for the promotion of uniformity of legislation in the United States. December 31, 1917. Public Document No. 86. Boston, 1918. 21 pp.*

Includes report of special committee on occupational diseases to the national conference of commissioners on uniform State laws, together with draft of a uniform occupational diseases act to be adopted as supplemental to a uniform workmen's compensation act. Gives also a list of occupational diseases.

NEW YORK (City).—*Department of Health. Cost of clean clothes in terms of health, by Louis I. Harris, M. D., director bureau of preventable diseases, and Nellie Swartz, executive secretary, The Consumers' League of the City of New York. [New York City, 1918.] 96 pp.*

This report is reviewed on pages 203 to 205 of this issue of the MONTHLY LABOR REVIEW.

PENNSYLVANIA.—*Department of Labor and Industry. Bulletin, Vol. V, No. 1, Series of 1918. Harrisburg, 1918. 176 pp.*

Devoted almost entirely to a presentation of addresses made at the fifth annual industrial welfare and efficiency conference of the State Department of Labor and Industry held November 21 and 22, 1917. The titles of some of the addresses are: A national plan for dealing with the labor problem; The relationship of the workmen's compensation laws to the safety movement; The possibility and limitations of the employment of women in industry; Reconstruction and rehabilitation

of the war injured; The problem of the married woman in industry; Railroad employees' and workmens' compensation laws; The menace of dusts, gases, and fumes in modern industry; How organized labor can be of service in the prevention of industrial accidents; The value of education in eliminating the human equation as a factor in the causation of accidents. The bulletin also contains the program and a very brief report of the conference of industrial physicians and surgeons held on November 20, 1917.

PENNSYLVANIA. [Department of Labor and Industry. Bureau of Employment.] *How Pennsylvania is planning for its soldiers, sailors, and marines crippled in war service.* [Harrisburg] 1918. 3 type-written pages.

This is a brief statement of how the bureau of employment, up to May 1, 1918, obtained and filed information concerning 42,111 employment openings in the State for its soldiers, sailors, and marines who may return disabled by war service. The opportunities listed are classified by nature of disability.

UNITED STATES—Committee on public information. *War work of women in colleges.* Washington, April, 1918. 21 pp.

This brochure contains a supplementary description of how the colleges have met the war emergency, of college war courses, student war activities, and the employment of college-trained women, as presented in a brochure issued in January, 1918.

— Department of Agriculture. *Yearbook, 1917.* Washington, 1918. 853 pp.

Contains a chapter on rest rooms for women in marketing centers.

— Department of Commerce. Bureau of Standards. *Scope and application of the national electrical safety code.* Circular No. 72. Issued June 17, 1918. Washington. 84 pp.

The National Electrical Safety Code is a set of rules prepared by the Bureau of Standards after several years of study to furnish a guide for safe electrical practice and is concerned with both electrical construction and operation. The code deals with the generation, distribution, and use of electricity; and the scope of the code, its purpose, and the nature of its contents are discussed in this pamphlet. The introduction states that the publication of the pamphlet has been attempted "first, to explain the need for such a code and to give examples of personal injuries by electricity, which show the many types of accidents occurring, most of which would be avoided by observance of the rules; second, to indicate reasons for the arrangement of the code in its present form, and at the same time to explain by means of discussion and examples the intended method of use of the code by engineers and inspectors; third, to provide a short summary of the provisions of the code for those who wish a general or bird's-eye view of these provisions."

— — *Statistical Abstract of the United States, 1917.* Washington, 1918. 804 pp.

Contains, among others, statistics on occupations, labor, and wages.

— *Employees' Compensation Commission. Regulations concerning duties of employees, official superiors, medical officers, and others under Federal Compensation Act of September 7, 1916.* Washington, 1918. 64 pp.

The subjects covered in this pamphlet are Benefits provided by the Compensation Act; Duties of employees; Duties of official superiors; Instructions governing medical, surgical, and hospital services; Duties of beneficiaries of deceased employees; Rulings of the Compensation Commission; Forms used in reporting injuries and making claims, and Text of the compensation act.

— *Interstate Commerce Commission. Accident bulletin No. 65. Collisions, derailments, and other accidents resulting in injury to persons, equipments, or roadbed, arising from the operation of railways used in interstate commerce, July, August, and September, 1917.* Washington, 1918. 51 pp.

In this bulletin accidents on railroads are divided into three general classes: (1) Train accidents, i. e., those arising in connection with the operation of trains, locomo-

tives, and cars in road, yard, or work service, resulting in damage to equipment or other railway property; (2) Train service accidents, i. e., those incidental to the operation of trains, locomotives, and cars, resulting in casualties to persons but not in damage to equipment or other railway property; (3) Nontrain accidents, i. e., those occurring in and around shops, on boats and wharves, at stations, freight houses, engine houses, coaling stations, water stations, tracks, etc.; also those occurring in connection with construction, repair, maintenance of equipment, etc. The following table summarizes all such accidents which occurred on steam roads of the United States in the quarter ending September 30, 1917:

NUMBER OF CASUALTIES AS A RESULT OF ACCIDENTS ON STEAM ROADS IN THE UNITED STATES FOR THE QUARTER ENDING SEPTEMBER 30, 1917.

Item.	Train accidents.		Train service accidents.		Nontrain accidents.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Trespassers.....	18	27	1,218	1,103	.....	.....
Employees on duty.....	101	988	562	12,280	.....	.....
Employees not on duty.....	7	7	46	123	.....	.....
Passengers.....	39	1,406	61	1,175	.....	.....
Other nontrain passengers.....	30	133	637	1,625	.....	.....
Industrial employees.....	.....	.....	.....	.....	94	31,377
Other persons.....	.....	.....	.....	.....	28	590
Total.....	195	2,561	2,524	16,399	122	31,967

There were 5,227 train accidents, 15,754 train-service accidents, and 32,039 nontrain accidents. Of the 5,227 train accidents, 4,357 resulted in damage to railway property but not in casualties to persons.

UNITED STATES.—*Interstate Commerce Commission. Rules governing monthly reports of railway accidents, 1918 revision. Tentative draft submitted for criticism and suggestions. Washington, 1918. 52 pp.*

—*Public Health Service. Public Health Reports, March 15, 1918. Washington. Pp. 349-378.*

Contains an article on Methods for field study of industrial fatigue, by P. Sargant Florence, supervising field investigator, United States Public Health Service, in which he suggests a method of testing fatigue which shall not depend immediately upon any change in factory schedules; that is, is not based upon comparison of output before and after changes in hours, etc., are made. This test is called the "hourly output curve," or a comparison of output of consecutive hours in order to "show exactly to what extent the unrelaxed tension of activity will result in fatigue toward the end of a spell and toward the end of the working day, and exactly how far rest pauses, meal intervals, and a night's sleep will allow human capacity to gain recovery." The advantages which this scheme seems to offer, according to the author, are (1) the record of output is usually easy to secure every hour; (2) the output curve can be accompanied by curves in other very significant events of factory life, e. g., accidents and consumption of power; (3) it brings out a subtle distinction between the fatiguing effect of different types of work and possibly of different types of conditions also.

OFFICIAL—FOREIGN COUNTRIES.

CANADA (MANITOBA). *Department of Public Works. Second annual report of the Bureau of Labor for the year ending November 30, 1917. Winnipeg, 1918. 32 pp. Illustrated.*

Tabulates, by industry, 1,478 inspections of 507 firms employing 17,867 workers, the inspections resulting in the issuance of 1,369 safety orders, 157 health and sanitation

orders, and 48 child-labor orders. These inspections were made under the factories act. Under the shops regulation act 744 inspections were made and 770 orders for improvements were issued, 664 of these being connected with safety, 84 with health and sanitation, and 22 with child labor. Industrial accidents to the number of 539 are tabulated, 6 of these being fatal, 81 serious, and 452 minor. The report includes illustrations showing how some of these accidents happened. There are 125 trades-unions in the Province, 70 of which are in the city of Winnipeg. Fifty-eight of the 70 are affiliated with the Trades and Labor Council, which on January 1, 1917, had a membership of 8,203, or an increase of 67.4 per cent over January 1, 1916, when the ranks were considerably depleted on account of enlistments. The report mentions the enactment of the minimum-wage act, which "provides for a board of five, two to represent the employers (one a female), two to represent the employees (one a female), and a disinterested chairman."

FRANCE. *Lois, décrets, arrêtés concernant la réglementation du travail. 1^{er} janvier 1918. Paris, Librairie Administrative Berger-Levrault, 1918. 267 pp. Prix 3 fr. 50 net.*

A collection of the laws, decrees, and decisions concerning the regulation of labor. The first part is devoted to The code of labor and social welfare, and is divided into two books; the first, on Conventions relative to labor, contains chapters on The apprenticeship contract; The labor contract; Wages; Placement of workers; and Penalties. The second book, on Labor regulation, contains chapters on Conditions of labor; Hygiene and security for workers; The inspection of labor; and Penalties. The second part deals with labor accidents. There are appendixes treating of Cautions to workers; Wages of home workers in the garment industries; Woman and child labor; The working day; Weekly rest; Hygiene and security of labor; and The organization of the inspection service.

— *Ministère de la Guerre. Bulletin officiel No. 36. Édition méthodique. Emplois civils et militaires réservés aux militaires et marins blessés ou infirmes du fait de la guerre. Volume arrêté à la date du 18 mai 1917. Paris, Henri Charles-Lavauzelle, 1917. 501 pp.*

The laws, decrees, and regulations governing the reservation of certain civil and military employments for soldiers and sailors wounded or disabled during the war. Besides copies of the laws and decrees the volume gives classified tables of reserved occupations under the various ministries, regulations concerning examinations for specific positions, and related matter.

— *Ministère du Travail et de la Prévoyance Sociale. Direction du Travail. Rapports sur l'application des lois réglementant le travail en 1912. Rapport sur l'application de la loi du 2 Novembre 1892 présenté à M. le Président de la République par Mm les membres de la Commission supérieure du Travail; Rapport sur l'application de la loi des 12 Juin 1893-11 Juillet 1903 présenté à M. le Président de la République par M. le Ministre du Travail et de la Prévoyance Sociale; Rapports des inspecteurs divisionnaires du travail et des ingénieurs en chef des mines. Paris, 1914. 538 pp.*

This issue of the reports on the application of laws regulating labor is concerned with the year 1912 and includes reports on the application of the law of November 2, 1892, presented by the members of the Superior Commission of Labor; on the application of the law of June 12, 1893, to July 11, 1903, presented by the Minister of Labor and Social Welfare; reports of the division inspectors of labor; and of the chief engineers of mines.

GREAT BRITAIN. *Board of Trade. Report upon the accidents that have occurred on the railways of the United Kingdom during the year 1917. London, 1918. 6 pp. Price, 1d. net.*

This report is presented under three general heads: (1) Train accidents; (2) accidents caused by the movement of trains and railway vehicles exclusive of train accidents; and (3) fatal accidents on railway premises not due to train accidents or to the movement of trains and railway vehicles.

The following table is a general summary of all accidents:

NUMBER OF PERSONS KILLED OR INJURED ON THE RAILWAYS OF THE UNITED KINGDOM IN 1917, COMPARED WITH 1916, SHOWING PER CENT OF INCREASE OR DECREASE.

Group.	1916		1917		Per cent of decrease 1917 from 1916.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train accidents:						
Passengers.....	3	350	12	260	¹ 300.0	25.7
Servants.....	12	182	5	144	58.3	20.9
Other persons.....	1	17		2	100.0	88.2
Accidents caused by the movement of trains and railway vehicles, exclusive of train accidents:						
Passengers.....	147	1,195	110	850	25.2	28.9
Servants.....	402	3,519	² 331	³ 2,689	17.7	23.6
Other persons.....	427	326	368	263	13.8	19.3
Accidents on railway premises not included in the two groups above:						
Passengers.....	9	(⁴)	3	(⁴)	66.6	-----
Servants.....	39	(⁴)	⁵ 46	(⁴)	¹ 17.9	-----
Other persons.....	26	(⁴)	24	(⁴)	7.7	-----
Total.....	1,066	5,589	899	4,208	15.7	30.1

¹ Increase.

² Five were servants of contractors and not of railways.

³ Ten were servants of contractors and not of railways.

⁴ Data not given.

⁵ Two were servants of contractors and not of railways.

GREAT BRITAIN. *Board of Trade. Departmental committee on the electrical trades. Report on the position of the electrical trades after the War. London, 1918. 14 pp. Price 2d. net. Cd. 9072.*

This report is noted on pages 90 to 93 of this issue of the MONTHLY LABOR REVIEW.

— *Departmental committee on the engineering trades after the War. Report. London, 1918. 54 pp. Price 6d. net. Cd. 9073.*

This report is noted on pages 90 to 93 of this issue of the MONTHLY LABOR REVIEW.

— *Departmental committee on the iron and steel trades. Report on the position of the iron and steel trades after the War. London, 1918. 50 pp. Price 6d. net. Cd. 9071.*

This report is noted on pages 90 to 93 of this issue of the MONTHLY LABOR REVIEW.

— *Committee on staffs. Interim report of the committee appointed to inquire into the organization and staffing of Government offices. London, 1918. 8 pp. Price, 1d. net.*

This committee was appointed on February 13, 1918, "to inquire into the numbers and organization of the clerical staffs employed in the new ministries created and in other departments in which large additions to the staff engaged have been made since the beginning of the War, the method of recruitment and the rates of remuneration, and to report what measures should in our opinion be taken to secure better coordination in respect both to recruitment and organization, to effect economies in numbers and cost, and to prevent overlapping." The report is dated April 5. Briefly, it recommends that, save in exceptional cases, the recruitment of the standard classes of clerks and typists for all London departments should be centralized in the Civil Service Commission which "should open a special office in their present premises, take further steps to secure candidates from all available sources, extend the personnel of their selection boards, and improve the method of selection by the institution of suitable test examinations or otherwise." It also recommends that in the exceptional cases where very large staffs are required in an emergency, independent recruiting

should continue subject to certain restrictions laid down; and that "the Civil Service Commission should continue to supply higher grade women clerks, but that it should be open to departments to nominate applicants whom they desire to appoint to such posts for the approval of the commission."

GREAT BRITAIN. *Conciliation and arbitration board for Government employees. Record of the proceedings for 1917.* London, 1918. 16 pp. [Cd. 9017.] Price, 2d. net.

This report is noted on pages 84 to 89 of this issue of the MONTHLY LABOR REVIEW.

— *Ministry of Labor. Works committees. Report of an inquiry made by the Ministry of Labor. Industrial Reports No. 2.* [London, 1918]. 145 pp.

This report is reviewed on pages 81 to 84 of this issue of the MONTHLY LABOR REVIEW.

— *Ministry of Pensions. Circulars Nos. 1-87.* London, Feb., 1917-May, 1918.

These circulars, issued for the most part to local committees, contain detailed instructions for carrying out the acts and orders in council issued concerning matters of interest to disabled men.

— — *List of courses of training in operation or sanctioned throughout the United Kingdom.* London, May, 1918. 15 pp.

The object of this list is "to inform local war pensions committees of the different centers at which facilities exist for the training of disabled men in various trades, so that, in cases where training is not available in any particular area, advantage may be taken of the provision afforded by other areas."

— — [Record forms] London, 1917-18.

Fifty forms used by the local war pensions committees in the granting of pensions and allowances to soldiers and sailors and their families, and in the training and treatment of men who come under their jurisdiction.

— — *Royal warrant for the pensions of soldiers disabled, and of families and dependents of soldiers deceased in consequence of the present War.* London, 1918. 12 pp. Price, 2d. net.

Revokes royal warrant of March 29, 1917, dealing with the same subject. This new warrant, dated April 17, 1918, includes a schedule of pensions which may be granted for specific injuries, the amounts in the case of those suffering 100 per cent disability ranging from 42s. 6d. (\$10.34) per week, payable to a warrant officer (class 1), to 27s. 6d. (\$6.69) payable to a private (class 5). The allowances to disabled soldiers or soldiers' widows having children are placed at 6s. 8d. (\$1.62) for the first child, 5s. (\$1.22) for the second child, and 4s. 2d. (\$1.01) for each child after the second. In the case of disabled soldiers the amount payable for children depends upon the degree of disablement to which the man is assessed for pension with the above amounts as the basis.

— *Ministry of Reconstruction. Coal conservation subcommittee. Interim report on electric power supply in Great Britain.* London, 1918. 28 pp. Cd. 8880.

This report is noted on pages 93 to 97 of this issue of the MONTHLY LABOR REVIEW.

— — *Committee on relations between employers and employed. Report on conciliation and arbitration.* London, 1918. 5 pp. Price, 1d. net. Cd. 9081.

This report is printed in full on pages 237 to 240 of this issue of the MONTHLY LABOR REVIEW.

— *National Insurance Audit Department. Fourth report, 1917.* London, 1917. 18 pp. Price, 2d. net.

Deals with the work of above-named department under certain sections of the national insurance (health) act of 1911 during the year ended December 31, 1917. It is stated that there were issued during the year 9,540 qualified reports annexed to accounts on the audits of approved societies and branches, and 2,655 unqualified certificates on such accounts.

GREAT BRITAIN.—*Report of departmental committee appointed to inquire as to precautions for preventing danger of infection by anthrax in the manipulation of wool, goat hair, and camel hair. Vol. 1, Report of the disinfection subcommittee. London, 1918. 93 pp. Price, 1s. net. Cd. 9057.*

This report is noted on pages 205 to 208 of this issue of the MONTHLY LABOR REVIEW.

— *The interallied conference on the aftercare of disabled men. Second annual meeting, held in London, May 20-25, 1918. Reports presented to the conference. London, 1918. 528 pp.*

These reports are grouped under four sections: Pensions and allowances; training; medical treatment, the blind and deaf; surgical treatment. The program of the conference is given, also a list of the delegates in attendance. A more extended report of the conference appears on pages 31 to 43 of this issue of the MONTHLY LABOR REVIEW.

— *War Pensions Statutory Committee. Circulars. 1915-1917.*

These circulars deal with matters of interest in the formation and development of local war pensions committees, including model schemes for their constitution.

— (Scotland).—*Local Government Board. Twenty-third annual report, 1917. Edinburgh, 1918. xiv, 20 pp. Price, 3d. net.*

States that the housing activities of the board have been devoted very largely to the provision of houses required for war purposes by the Ministry of Munitions and by the admiralty, the number of houses involved being 4,276 at an estimated cost of £1,278,000 (\$6,219,387). The report notes that the great demand for labor has brought about the virtual disappearance of unemployment and that the relief work of the district committees was very limited.

IRELAND.—*Department of Agriculture and technical instruction. Seventeenth annual general report of the Department, 1916-17. Dublin, 1918. 234 pp. Price, 1s. net.*

Contains a section describing the work of technical schools and classes which, during the year, enrolled 44,278 students or an increase of 93 over the preceding session. This is considered quite gratifying "since a large number of students of military age have joined the colors and the increase is largely due to admission of students of a younger age." It is also noted that the number of students taking engineering courses showed a marked increase.

— *Registrar General. Emigration Statistics of Ireland, 1917. Dublin, 1918. 11 pp. Price, 2d. net.*

Gives the number, ages, conjugal condition, and destinations of emigrants from each county and Province in Ireland during the year 1917; also the number of emigrants leaving each port in each month of the year. The total number of emigrants who embarked at Irish ports was 2,111 (838 males and 1,273 females). Of the males, 55.5 per cent were under 15 years of age. Only 88 of the total number came to the United States. About 21 per cent of the males were returned as "laborers" and 26.2 per cent of the females were described as "servants."

ITALY.—*Federazione Nazionale dei Comitati di assistenza ai Militari Ciechi, Storpi, Mutilati. L'opera svolta in Italia, 1915-1918. Rome, 1918. 326 pp. Illustrated.*

This volume, published by the Italian national federation of relief committees for blind, lame, and injured soldiers, gives a detailed account of the work done by the individual provincial committees with respect to vocational reeducation of war invalids.

— *Ministère de la Guerre, Ministère de la Marine, Ministère des Retraites. L'Assistance et la protection des invalides de guerre en Italie. Rapport présenté par le Gouvernement Italien à la conférence interalliée de Londres pour la protection des invalides de guerre. London, Bradbury, Agnew & Co., Ltd., 10 Bouverie Street, E. C. 1918. 20 pp.*

Three reports on assistance and protection for war invalids in Italy, presented by the Italian Government to the interallied conference for the protection of the war

disabled, held at London in May, 1918. The reports give a brief résumé of the activities of the ministers of war, navy, and pensions.

JAPAN.—*Cabinet Impérial. Bureau de la statistique générale. Résumé statistique de l'Empire du Japon. 32^e année. Tokio, 1918. 177 pp. 2 plates.*

This thirty-second volume of the statistical résumé of the Empire of Japan contains chiefly a repetition of the most important statistics in the thirty-sixth statistical annual of the Empire of Japan, published by the Bureau of General Statistics in January; but they are rearranged in a form to facilitate their consultation by readers. The tables are given in both Japanese and French, and in a few instances also in English.

UNOFFICIAL.

AMERICAN MUSEUM OF SAFETY.—*Safety. June, 1918. 14-18 W. 24th Street, New York City. 26 pp. Illustrated.*

This issue of the monthly bulletin of the American Museum of Safety is devoted almost entirely to Federal safety standards for crane construction.

BARRETT, CHARLES R.—*Getting a good job. A practical solution of the problem of fitting the right man to the right place. Chicago, American Technical Society, 1917. 124 pp.*

A restatement, by the author, of the views of successful employers, employment managers, and agencies. The book aims to show, from the experience of the men who "hire and fire," how to sell trained ability where it will earn the most money.

BORREL, ANTOINE.—*La lutte contre le chômage avant, pendant et après la guerre. Encyclopédie Parlementaire des sciences politiques et sociales. Paris, H. Dunod & E. Pinat, 1917. 336 pp.*

An account of the struggle against unemployment before and during the War and of the efforts being made to meet the problem after the War in France, Great Britain, Germany, Switzerland, Norway, Belgium, and other countries. One chapter is devoted to the organization and work of the International Association for the Prevention of Unemployment from its first meeting in Paris in 1909, to 1913; and another to conclusions, in which the author states his belief that of all the measures tried for the relief of unemployment in different countries the only remedy which gives efficacious results is insurance. An appendix gives laws of various countries relating to unemployment and the regulations of the International Association for the Prevention of Unemployment.

CARRY ON. *A magazine on the reconstruction of disabled soldiers and sailors. Edited by the Office of the Surgeon General, U. S. Army; published for the Surgeon General by the American Red Cross. Vol. 1, No. 1, June, 1918. Washington, 1918. 32 pp.*

This first number contains a message from General Gorgas; an article by Douglas C. McMurtrie, director of the Red Cross Institute for Crippled and Disabled Men, on the work being done for the reeducation and return to industry of disabled men; the story of the reeducation of our first blinded soldier, told by himself; How can a woman best help? by Alice Duer Miller; How Germany made preparation for her wounded; and other contributions from recognized authors.

COUNCIL OF ORGANIZATIONS FOR WAR SERVICE. *The Clearing House for War-time Training for Women. Opportunities for war-time training for women in New York City in the summer of 1918. 4 East 39th Street, New York City [1918] 107 pp.*

The purpose of this organization is to accumulate facts regarding the facilities in New York City for training women for war work, to place this information at the disposal of those interested and to ascertain the current demands for trained women through local agencies. The courses offered include agriculture, applied art, commercial education, household economics, industry and trades, languages, library work, professions, scientific training, and social work.

CROSS, IRA B. *Collective bargaining and trade agreements in the brewery, metal, teaming, and building trades of San Francisco, California.* University of California publications in economics, Vol. 4, No. 4, pp. 233-364. May 20, 1918. Berkeley.

Based upon a study made in May, 1915, much of the material being gathered at the request of the United States commission on industrial relations. Briefly traces the history of the unions concerned, giving the story of the development of the trade agreements, and presenting in detail the terms of the agreements in force in 1915. Certain other data relating to conditions of employment then prevailing have also been included.

DEELEY, W. J. *Labor difficulties and suggested solutions. A manual for technical students, cashiers, foremen, departmental or works managers and employers.* Manchester [England], Sherratt & Hughes, 1918. 175 pp.

Designed "to introduce technical students * * * to one of the most difficult problems they will have to face in their chosen career." The material in this volume was prepared for a course of six lectures to third-year undergraduates in the Manchester School of Technology and is arranged in seven chapters, on Labor difficulties, Foremen, Managers and employers, Selection for stability of staff, Wage payments, Welfare work and workshop committees, and Suggested solutions.

DELATRE, H. *Le blessé de guerre. Guerre de 1914-1918. Petit manuel pratique destiné aux sous-officiers, caporaux et soldats ainsi qu'aux veuves et orphelins de la guerre.* 56^e édition. Paris, Henri Charles-Lavauzelle, 1918. 110 pp. Price, 75 centimes.

This little volume on the disabled of the War is intended as a practical manual for noncommissioned officers, corporals, and soldiers, and also for the widows and orphans of those killed. In concise form and simple language information is given of the measures each of these disabled men should take in order to secure the rights to which he is entitled, his military situation, and the formalities with which he should comply; also explanations regarding the assistance which is provided for widows and orphans in France.

FRANC, ALISSA. *Use your Government. What your Government does for you.* New York, E. P. Dutton & Company, 1918. 374 pp. Illustrated.

An attempt to show in a practical and popular form the varied ways in which the Government cooperates with and serves the people in all trades and professions. It is divided into eight parts which consider the information and assistance the Government gives to the farmer, the would-be settler, the man in business, the working man, the immigrant, the negro, the woman in her home, and girls and boys.

HOUEL, ALEXANDRE. *La mobilisation générale. Son caractère juridique et sa répercussion sur les contrats de travail.* Paris, M. Giard & É Brière, 1917. 48 pp.

A consideration of the legal aspect of the reaction which the general mobilization has had upon labor contracts in force at the time it was decreed, undertaken with the view of showing how certain legal principles which have suffered from wrong interpretation may be restored to their exact application and at the same time be susceptible of adaptation to existing conditions.

HUTTON, J. E. *Welfare and housing. A practical record of war-time management.* London, Longmans, Green and Co., 1918. 192 pp. Illustrated.

The author of this volume is manager of the labor and catering department of Vickers Limited, which employs over 100,000 people, and member of the food investigation committee of the ministry of munitions, and the work is based upon his experiences "in coping with the many problems which are attached to the housing of many thousands of work people of both sexes, and catering to their manifold needs, as a result of the total dislocation which the great War has effected in the industrial life of Great Britain." He does not, however, intend the details and suggestions contained in this work to be confined in their application to the period of the War, but thinks that the lessons which have been learned will inevitably bear fruit when the War is over.

KENT, WILLIAM. *Bookkeeping and cost accounting for factories*. New York, John Wiley & Sons, Inc., 1918. 261 pp.

KIRKALDY, ADAM W., editor. *Industry and finance. War expedients and reconstruction. Being the results of inquiries arranged by the section of economic science and statistics of the British Association, during the years 1916 and 1917. Published by authority of the Council of British Association*. London, Sir Isaac Pitman & Sons, Ltd. [1917.] 371 pp.

Reports prepared by committees of investigation of the British Association. The volume contains chapters on Replacement of men by women during the War, a digest of which is given on pages 172 to 178 of this issue of the MONTHLY LABOR REVIEW; Women workers in agriculture, which was summarized in the MONTHLY REVIEW for May, 1918, pages 61 to 64; Workshop committees; The effects of the War on credit, currency, and finance; and an introductory chapter, "A survey and a warning," by Sir Hugh Bell, president of the section, written in place of the ordinary presidential address, as the usual meeting of the British Association was not held this year; also appendixes. The chapter on Workshop committees, by C. G. Renold, is devoted to suggested lines of development which consider how far a devolution of some of the functions and responsibilities of management to the workers themselves "can be carried under present conditions, and the necessary machinery for enabling it to operate." Beginning with the assumption that "the conditions of industrial life fail to satisfy the deeper needs of the workers, and that it is this failure, even more than low wages and bad conditions, which is responsible for much of their general unrest," the author passes to constructive proposals for devolution of management which are treated under four sections. Section I deals with Scope of workers' shop organizations—management questions which could be devolved, wholly or in part; Section II considers the machinery needed to make such joint action workable; Section III contains a summary of the scheme of committees contained in Section II, showing the distribution to each committee of the various questions discussed in Section I, and in Section IV "some comments are made based on actual experience of an attempt to institute machinery of the kind discussed, and some practical hints are given which may be of assistance to others."

L'ASSOCIATION DES INDUSTRIELS DE FRANCE CONTRE LES ACCIDENTS DU TRAVAIL. *Bulletin No. 28. Année 1917. Paris, 10, Place Saint-Michel, 1917. 69 pp.*

Bulletin of the Manufacturers' Association of France for the Prevention of Industrial Accidents, founded at Paris in 1883 for the purpose of preventing industrial accidents and of improving the hygiene of workshops. Besides the statutes and regulations of the association, the personnel of committees, and financial reports, the bulletin contains reports to the International Congress for the Prevention of Industrial Accidents and for Industrial Hygiene held at Milan, on protective devices for rolling mills, and on the cleaning of cotton carding machines from the standpoint of industrial hygiene.

LORD, F. W. *Ethics of contracting and the stabilizing of profits*. Garden City, N. Y., The Country Life Press, 1918. 184 pp.

An endeavor "to set forth, as the result of nearly 25 years' experience, some suggestions and ideas which may be of value, not only to the contractor, but to those with whom he comes into business contact." There are chapters on the contractor in his relation to the different persons and agencies with whom he deals, including a chapter on the contractor and the union, which the author concludes by saying: "It is well to remember, whether or not the reader believes in trade-unions, that they are here to stay and that the condition must be met, and employers who realize this and have treated with the unions in the same spirit in which they have met other business problems, have benefited thereby, and have also thus tended to stabilize conditions in their industry."

McDILL, JOHN R. *Lessons from the enemy. How Germany cares for her war disabled.* Philadelphia, Lea & Febiger, 1918. 262 pp. Illustrated. *Medical War Manual No. 5.* Authorized by the Secretary of War and under the supervision of the Surgeon-General and the Council of National Defense.

A detailed account of the organization and methods which Germany employs in the care of her war disabled, from the medico-military organization to private efforts in nursing and relief. Chapters are devoted to Reeducation of the war disabled; Orthopedic hospital-schools and workshops; and Artificial limbs or prostheses. The form of an information blank to be filled out by the disabled men; a circular containing a "back-to-the-land argument;" information concerning national and communal war relief work; and an explanation of social health insurance and hospital systems in peace are given in appendices.

METROPOLITAN LIFE INSURANCE CO. *The welfare work of the Metropolitan Life Insurance Company for its employees. Reports for 1917.* 24 pp.

A report of the purposes, aims, and results of the company's welfare work, covering its health work; savings and insurance; recreation, both social and athletic; and education together with a record of the medical dispensary service from 1911 to 1917 and a quite detailed statement of the work of the dental section.

NATIONAL SAFETY COUNCIL. *The teaching of safety in technical schools and universities. A memorandum prepared for the aid of those desiring to undertake such work.* Chicago, National Safety Council, Continental and Commercial Bank Building, 1918. 26 pp.

NATIONAL SOCIETY FOR VOCATIONAL EDUCATION. *Problems of administering the Federal act for vocational education. Bulletin No. 26, 140 West 42d St., New York City, 1918.* 83 pp.

This pamphlet contains addresses delivered at the eleventh annual convention, Philadelphia, February 21-23, 1918. They are grouped under four heads: (1) Administrative problems confronting the Federal Board for Vocational Education; (2) Training teachers of agriculture under the Smith-Hughes Act; (3) Home economics under the Smith-Hughes Act; (4) Industrial and trade training under the Smith-Hughes Act.

— *Vocational training in war time. Bulletin No. 27. Addresses delivered at the eleventh annual convention, Philadelphia, Pa., February 21-23, 1918.* New York, National Society for Vocational Education, 140 West 42d Street, 1918. 93 pp.

Section I is devoted to vocational training for war industries and contains addresses on War industries and their problems; War industries and their problems from the standpoint of labor; Industrial training in shipbuilding; War emergency vocational training in Dunwoody Institute; War emergency work in New York State; Training equipment inspectors for the Ordnance Department; and Suggestions for vocational training in connection with the military training camps. Section II is devoted to Vocational training for the handicapped and incapacitated, and contains addresses on Vocational reeducation of the handicapped and incapacitated in Canada; Fundamental principles of reeducation of disabled soldiers; Vocational reeducation of disabled soldiers and sailors; and A Government program for disabled soldiers and sailors. Section III relates to New standards for industrial training, the subjects treated being Industrial education for present-day industry; Instruction in garment-making in the Clothcraft Shops; and Training of people "on the job" in stores. A report of the convention was published in the MONTHLY REVIEW for April, 1918, pages 111-117.

OFFICINA NAZIONALE DI PROTESI PER I MUTILATI IN GUERRA. *Ente morale decreto 24 Febbraio 1916. Gorla 1°. Milan. 23 pp. Illustrated.*

The National Works of Prosthesis for the maimed in war were built, by public subscription, on the outskirts of Milan and incorporated by royal decree February 24,

1916. This pamphlet gives a description of the plant, of the technical function of the works, and of the appliances of prosthesis used. There is also an English translation of the pamphlet, of 14 pages, without illustrations.

OPERA NAZIONALE PER LA PROTEZIONE E L'ASSISTENZA DEGLI INVALIDI DELLA GUERRA. *Agli invalidi della Guerra. Rome, 1918. 68 pp. Illustrated.*

Brief account of the national work which Italy has undertaken for the protection and assistance of war invalids. Special attention is given to the determination of the status of war invalids, to pensions for invalids, to sanitarium and orthopedic treatment and appliances of prosthesis furnished by the State, to vocational reeducation, and to assistance in the acquisition of property.

OVERLOCK, M. G. *The working people: Their health and how to protect it. Boston, Massachusetts Health Book Publishing Co., 1911. 298 pp.*

Practical information which every individual should have concerning the protection of the health and the prevention of disease among adults and children, given in very simple language. The book is specially intended for "That great mass of men and women who make up the bone and sinew of this Nation—the toilers—whose health is their principal asset." Of special interest is a chapter on the prevention of tuberculosis among printers, grinders, and polishers, stone and marble cutters, and weavers, these occupational classes being selected as the ones in which tuberculosis is most prevalent. Other chapters are devoted to conservation of the Nation's health, the working day—which the author thinks is at present too long; State hygiene, the working people as spendthrifts, and why; and the modern factory and what it means to the people employed therein.

RED CROSS INSTITUTE FOR CRIPPLED AND DISABLED MEN. *Training in English technical schools for disabled soldiers, by John Culbert Faries, Ph. D. Publications, Series 1, No. 8. New York, 311 Fourth Ave. April 22, 1918. 12 pp.*

— *Placement technique in the employment work of the Red Cross Institute for Crippled and Disabled Men, by Gertrude R. Stein. Publications, Series 1, No. 9. New York, 311 Fourth Ave. May 6, 1918. 11 pp.*

— *The vocational school for disabled soldiers at Rouen, France, by J. Breuil, translated by Gladys Gladding Whiteside. Publications, Series 1, No. 11. New York, 311 Fourth Ave. May 13, 1918. 11 pp.*

SECRETARIAT DES PAYSANS SUISSES. *Publication No. 56. Vingtième rapport annuel du comité directeur de l'Union suisse des Paysans et du Secrétariat des Paysans suisses. 1917. Brugg, Secrétariat des paysans suisses, 1918. 144 pp.*

Twentieth annual report of the administrative committee of the Swiss Union of Countrymen and of the Secretary's Office of Swiss Countrymen, for 1917. Besides detailed business matters, the report considers economic measures for remedying the consequences of the War, including food restrictions and auxiliary agricultural service; application of the law regarding sick and accident insurance; the office for information on prices of agricultural products, and other matters of interest to agriculturists.

— *Publication No. 57. Sténogramme des débats de l'Assemblée ordinaire des délégués de l'Union suisse des Paysans tenue le 4 décembre 1917 dans la Salle du Grand Conseil à Berne. Brugg, Secrétariat des Paysans suisses, 1918. 82 pp.*

Verbatim report of the discussions of the general assembly of delegates of the Swiss Union of Countrymen held December 4, 1917, at Berne. The report is printed in both French and German.

SNOW, WILLIAM F. *Social Hygiene and the War. New York, American Social Hygiene Association, 105 West 40th Street, 1917. pp. 417-450. Publication No. 108.*

A reprint from Social Hygiene, July, 1917, Vol. III, No. 3, giving a summary of measures taken for the promotion of social hygiene in America since the beginning of the War.

SPARGO, JOHN. *Americanism and social democracy*. New York, Harper & Brothers, 1918. 326 pp.

This volume aims to present social democracy "as a movement in full harmony with the generous ideals of democracy and internationalism which the word 'Americanism' signifies." Some of the chapters have been published as separate articles in papers and magazines, but most of them appear here for the first time.

UNION SUISSE DES SOCIÉTÉS DE CONSOMMATION (U. S. C.) BÂLE. *Rapports et comptes concernant l'activité des organes de l'Union en 1917*. Bâle, Imprimerie de l'U. S. C., 1918. 132 pp.

Reports and financial statement of the activities of the cooperative organizations composing the Swiss Union of Consumers' Societies, for the year 1917.

UNIVERSITY OF ARIZONA. *Bureau of Mines. State Safety News. Bulletin No. 87. June, 1918. Safety series No. 32 Tucson, 1918. 11 pp.*

Devotes several pages to a description of the "proto" breathing apparatus.

UNIVERSITY OF WISCONSIN. *Extension Division. Food conservation through utilization of garbage waste, by G. R. Bascom and Dr. B. A. Beach. Serial No. 900; General Series No. 690. Correspondence study. Madison, February, 1918. 12 pp.*

— — — *Industrial education and dependency, by John R. Commons. Serial No. 916; General Series No. 705. Revised edition. General information and welfare. Madison, March, 1918. 20 pp. Price 15 cents.*

— — — *Municipal coal yards, by Ford H. MacGregor. Serial No. 925; General Series No. 712. Municipal reference bulletin No. 4. Madison, May, 1918. 24 pp. Price 10 cents.*

— — — *The profession of industrial service. Courses offered during the summer session, 1918, and the academic year, 1918-1919. Madison, 1918. 4 pp.*

VILLIERS, BROUGHAM. *Britain after the peace. Revolution or reconstruction*. London, T. Fisher Unwin Ltd., 1918. 263 pp.

A study—somewhat prophetic in character, but based on past experience and present conditions—of the economic and social problems which the author believes Great Britain will be forced to face upon the conclusion of the War. Various phases of the problems are treated in chapters on Europe in revolution; The problem of demobilization; The problem of finance; The problem of industry; The problem of the land; and The problem of development; all of which lead up to the development of the author's scheme for the successful reabsorption into industry of the army of the unemployed which will result from demobilization. This scheme is set forth in a chapter on A national works department, which "once organized will, we may be sure, tend to become a permanent works department of our civil governments."

ZOLLA, DANIEL, AND OTHERS. *La guerre. Deuxième série. La guerre et la vie économique. Conférences organisées par la Société des Anciens Elèves et Elèves de l'École Libre des Sciences Politiques. Bibliothèque d'histoire contemporaine. Paris, Librairie Félix Alcan, 1916. 311 p.*

Six papers on problems relating to the War and conditions caused by the War, prepared for the series of lectures organized by the Society of Alumni and Students of the Free School of Political Sciences. The first paper on "Agricultural production and the War," by Daniel Zolla, considers the effect of the War on agriculture and the regulation of the food supplies of France in consequence.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the bureau issued prior to July 1, 1912, will be furnished on application.]

Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the War.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.

Wages and Hours of Labor—Concluded.

- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
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