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LABOR TURNOVER AND EMPLOYMENT POLICIES OF A LARGE MOTOR VEHICLE MANUFACTURING ESTABLISHMENT.

BY BORIS EMMET, PH. D.

As a part of a comprehensive study of the extent, causes, and reduction of labor turnover, the Bureau of Labor Statistics is now conducting intensive investigations in certain plants, each one chosen because its experiences are thought to be useful to employment men in pointing out policies to be adopted and practices to be avoided. This article treats of the labor turnover and the conditions of employment in a big motor vehicle manufacturing plant located in one of the larger cities in the Middle West. Because of the intense war activities and the consequent keen competition for help, the shifting of labor in this city is so great that an annual labor turnover of from 300 to 400 per cent or more is not unusual. In the 22 establishments studied four had a labor turnover of 50 to 100 per cent; three, 100 to 150; two, 150 to 200; five, 200 to 250; three, 250 to 300; and five, 300 to 400 per cent. In some establishments the turnover is as high as 500 per cent per annum. One plant, engaged in most important war work, is known to have lost, during one month, 97 per cent of the working force of one of its principal departments.

In spite of the local shifting of labor the annual labor turnover of this motor plant has at no time since 1915 exceeded 75 per cent. Its actual turnover was 60.2 per cent for the year ending May 31, 1916, 74.3 per cent for the year of 1917, and 67.4 per cent for the year ending May 31, 1918. As shown in Table 1, its labor turnover for the year ending April 1, 1918, was 64.6 per cent. Its current turnover, based upon employment records of the first five months of the year, is only 63.1 per cent.

The success achieved by this company in the stabilization of its working force was made possible by the existence for some years past of a carefully planned progressive labor policy designed to hold the employees. Perhaps the most important feature of this enlightened policy is the centralization of all questions relating to personnel and conditions of employment in the hands of an executive official who has a sympathetic understanding of labor. This official has the combined functions of employment manager and general factory manager, and he is also vice president of the company. Because of the importance of his position and the confidence reposed in him by

the president and board of directors, his recommendations as to wage changes and conditions of employment are almost invariably adopted without delay by the plant management.

The attitude of the plant management toward labor questions profoundly affects labor turnover. The labor policy of this firm emphasizes the following cardinal points: (1) The right of an employee to join a labor organization if he so desires; (2) a living wage; (3) the existence of employees' committees for keeping in touch with the management and for the prompt adjustment of grievances; (4) the "best possible" working conditions; (5) good treatment; and (6) the absence of any wage-payment schemes which might be considered as designed to "drive" unduly the workers.

The experience of this plant shows the wisdom of vesting the employment manager with sufficient executive power to control wages and working conditions.

The various phases of the labor turnover of this establishment are discussed below in two principal sections: (1) A detailed statistical analysis of the nature and extent of the labor turnover, and (2) an account of the employment policies responsible for the results shown in the preceding section.

EXTENT OF LABOR TURNOVER.

The extent of labor turnover is shown by comparing the total of full-time positions, or the standard number of jobs, with the total separations. The former figure is arrived at by dividing the total annual number of labor hours by the number of hours worked during the year by one fully employed person. The annual hours of labor of one full-time worker was computed by multiplying the regular weekly hours of labor by 52 and deducting from the sum thus arrived at the following equivalent of hours: (1) One week as an annual vacation; (2) the actual number of legal holidays; (3) and 6 per cent of the total maximum working time for absenteeism. The latter deduction was based upon the records of absences for the year ending April 1, 1918.

Table 1, which follows, shows the annual labor turnover of the establishment, by shifts and departments.

The proportion of females employed in the manufacturing departments of the plant was less than 2 per cent. For this reason the turnover results presented in this study were not classified by sex.

The annual percentage of labor turnover for the entire establishment, for the year ending April 1, 1918, was 64.6 per cent. The turnover was somewhat greater in the night shift, the respective figures of turnover for the day and night shifts having been 61.9 and 74.1 per cent. The separations caused by those workers that quit and

those that left to enter the military service were 75.4 and 18.4 per cent, respectively, of the aggregate of separations for all causes. The extent of the separations due to discharges was relatively small, being only 5.4 per cent.

Generally speaking, the percentage turnover is greatest in those departments employing the highest proportions of unskilled laborers, such as the department charged with the duties of loading cars ("Big four," day shift), car repairing, and packing (crating). A relatively low turnover is found in departments employing higher proportions of skilled mechanics, such as toolmakers and grinders (day shift), or specialized help, such as screw-machine operators (day shift).

TABLE 1.—LABOR TURNOVER, BY SHIFTS AND DEPARTMENTS, FOR YEAR ENDING APR. 1, 1918.

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Name of department and general character of work.	Number of full-time positions.	Number hired.	Number of separations.					Per cent of separations.					Per cent of turnover per annum.
			Discharged.	Laid off.	Entered military service.	Quit.	Total.	Discharged.	Laid off.	Entered military service.	Quit.	Total.	
DAY SHIFT.													
Screw: Hand and automatic screw machines, heading and slotting.....	111	73			12	44	60	6.7		20.0	73.3	100.0	54.1
Boring mill: Boring, lathes, drilling, milling, wheel assembling.....	22	29	4		4	20	25	4.0		16.0	80.0	100.0	113.6
Frame: Lathes, drilling, milling, shaping, hand-screw machines, assembling, straightening.....	150	120	1		15	82	98	1.0		15.3	83.7	100.0	65.3
Axle: Lathes, drilling, milling, screw-machine work, wheel assembling, repairing.....	246	186	1		20	120	141	.7		14.2	85.1	100.0	57.3
Gear turning: Lathes, drilling, grinding, hand-screw machines, broaching.....	104	72	2		20	50	72	2.8		27.8	69.4	100.0	69.2
Tool: Tool making, grinding.....	33	12			5	9	14			35.7	64.3	100.0	42.4
Brass equipment: Milling, drilling.....	56	32	1		7	26	34	2.9		20.6	76.5	100.0	60.7
Hospital: Medical attendance.....	1	2				1	1				100.0	100.0	100.0
Polishing: Brass, rough and gear polishing, Gardner disk work, grinding, tumbler barrel work, and buffing.....	83	53	2			35	37	5.4			94.6	100.0	44.6
Clean up: Cleaning and washing.....	59	81	11			51	62	17.7			82.3	100.0	105.1
Kitchen: Waiting on, dishwashing, cooking.....	7	4				1	1				100.0	100.0	14.3
Restaurant: Waiting on, dishwashing, cooking.....	6	7				6	6				100.0	100.0	100.0
Engine No. 1: Lathes, drilling, milling, grinding, broaching, boring.....	276	239	14		35	147	196	7.1		17.9	75.0	100.0	71.0
Engine No. 1, tool: Tool making, planing, set-up work, cutting, grinding, mill-wrights.....	47	28	3		5	13	21	14.3		23.8	61.9	100.0	44.7
Engine No. 2: Planing, lapping, assembling, scraping, gear testing.....	311	256	6		41	137	184	3.3		22.2	74.5	100.0	59.2
Gear cutting: Lathes, drilling, milling, gear cutting, pointing and testing, lapping, assembling.....	145	111	4		22	63	89	4.5		24.7	70.8	100.0	61.4
Ball bearing: Grinding, hand and automatic screw machines, bench assembling.....	101	30	1		12	31	44	2.3		27.3	70.4	100.0	43.6
Hardening: Furnace attending, hardening, brazing, and blacksmithing.....	57	58	2			46	48	4.2			95.8	100.0	84.2
Gear testing: Gear testing.....	7	1			1		1			100.0		100.0	14.3
Drafting: Drafting.....	6	2				2	2				100.0	100.0	33.3
Special drawing: Special drafting.....	2	1				1	1				100.0	100.0	50.0
Experimental: Research, experimenting.....	7	11		1		4	5		20.0		80.0	100.0	71.4
Carburetor: Lathes, drilling, milling, gear cutting, pointing and testing, lapping, bench assembling.....	120	108	5		19	72	96	5.2		19.8	75.0	100.0	80.0
Chassis test: Testing, inspecting, car washing.....	57	61	9		22	22	53	17.0		41.5	41.5	100.0	93.0
Garage: Maintenance work.....	8												0.0
Erecting: Chassis assembling, punch pressing, and metal work.....	397	261	6		19	168	193	3.1		9.8	87.1	100.0	48.6
Power: Caring for machinery, ash and coal passing.....	121	117	6		7	81	94	6.4		7.4	86.2	100.0	77.7
Big four: Common labor.....	4	13	2			8	10	20.0			80.0	100.0	250.0
Shipping: Attending to freight trains, common labor.....	8	7				5	5				100.0	100.0	62.5
Finish test: Finish testing work.....	63	51	6		18	24	48	12.5		37.5	50.0	100.0	76.2
Electrical: Electrical work.....	25	16	2		2	8	12	16.7		16.7	66.6	100.0	48.0
Paint: Painting.....	211	44			10	47	57			17.5	82.5	100.0	27.0
Trimming: Upholstering.....	80	16			7	11	18			38.9	61.1	100.0	22.0

Truck assembling: Truck assembling, blacksmithing.....	101	50	2	12	28	42	4.8	28.6	66.6	100.0	41.6	
Crating: Packing or boxing.....	38	65	3	19	5	38	4.6	29.2	7.7	58.5	100.0	
Tire: Tire and wheel assembling.....	22	7	1	2	7	10	10.0		20.0	70.0	100.0	
Touring car equipment: Equipment assembling.....	9			1	1	2			50.0	50.0	100.0	
Car washing: Washing and cleaning.....	10	12			9	9				100.0	90.0	
Storage: Driving, general labor, clerical.....	25	24		5	17	17			29.4	70.6	100.0	
Order: Clerical.....	10	5	1	3	2	6	16.7		50.0	33.3	100.0	
Body: Clerical.....	8	13	1	1	7	9	11.1		11.1	77.8	100.0	
Purchasing: Purchasing and clerical.....	21	31	4	1	3	18	15.4	3.9	11.5	69.2	100.0	
Superintendent's office: Clerical.....	5			2	1	3			66.7	33.3	100.0	
Stock: Filling orders, packing, stock chasing, clerical.....	21	16	3	2	8	13	23.1		15.4	61.5	100.0	
Cost: Clerical.....	21	28	1	1	2	11	6.7	6.7	13.3	73.3	100.0	
Time: Clerical.....	11	17		1	10	11			9.1	90.9	100.0	
Employment: Clerical.....	3	2			3	3				100.0	100.0	
Telephone: Operating.....	4	6	1		3	4	25.0			75.0	100.0	
Freight in: Truck driving.....	11	10	2	3	1	6	33.3		50.0	16.7	100.0	
Inside receiving: Clerical and common labor.....	25	25	2	3	14	19	10.5		15.8	73.7	100.0	
Outside receiving: Clerical and common labor.....	16	24			13	13				100.0	81.3	
Parts and stock: Filling orders, packing, stock chasing, clerical.....	84	80	2	15	41	58	3.4		25.9	70.7	100.0	
Repair: Repairing, testing.....	99	91	7	30	45	82	8.5		36.6	54.9	100.0	
Service: Car repairing.....	8	15		1	15	16			6.3	93.7	100.0	
Total.....	3,483	2,623	119	22	394	1,622	2,157	5.5	1.0	18.3	75.2	100.0
NIGHT SHIFT.												
Screw: Hand and automatic screw machines, heading, slotting.....	77	67	2	9	33	44	4.5	20.5	75.0	100.0	57.1	
Boring mill: Boring lathes, drilling, milling, and wheel assembling.....	4	3			2	2				100.0	50.0	
Frame: Lathes, drilling, milling.....	72	71	1	20	42	63	1.6	31.7	66.7	100.0	87.5	
Axle: Lathes, drilling, milling, grinding, hand-screw machines, bench assembling.....	129	135	3	18	71	92	3.3	19.6	77.2	100.0	71.3	
Gear turning: Lathes, grinding, hand-screw machines, broaching, drilling.....	81	85	6	8	64	78	7.7	10.3	82.0	100.0	96.3	
Tool: Lathes, milling, grinding.....	11	10	2	1	10	13	15.4	7.7	76.9	100.0	118.2	
Brass equipment: Drilling, milling.....	19	24		4	11	15		26.7	73.3	100.0	78.9	
Polishing: Rough polishing and grinding, Gardner disk and tumbling barrel work.....	40	44	1	3	26	30	3.3	10.0	86.7	100.0	75.0	
Clean up: Cleaning.....	4	1			1	1				100.0	25.0	
Kitchen: Cooking, dishwashing.....	2				1	1				100.0	50.0	
Engine No. 1: Lathes, drilling, milling, grinding, boring, bench work.....	214	215	14	37	121	172	8.1	21.5	70.4	100.0	80.4	
Engine No. 1 tool: Toolmaking.....	11	7	1	1	3	5	20.0	20.0	60.0	100.0	45.5	
Engine No. 2: Testing, lapping.....	7	2		1	1	2		50.0	50.0	100.0	28.6	
Gear cutting: Lathes, drilling, milling, gear cutting, bench work, lapping, inspecting.....	70	64	2	7	35	44	4.6	15.9	79.5	100.0	62.9	
Ball bearing: Bearing grinding, hand and automatic screw-machine work.....	61	32	1	5	24	30	3.3	16.7	80.0	100.0	49.2	
Hardening: Furnace attending.....	5	1		1	2	3		33.3	66.7	100.0	60.0	
Carburetor: Lathes, drilling, milling, screw machines.....	30	45	3	8	25	36	8.3	22.2	69.5	100.0	120.0	
Garage: Maintenance work.....	1	1			2	2			100.0	100.0	200.0	
Erecting: Chassis assembling, punch pressing and metal work.....	130	119		12	73	85		14.1	85.9	100.0	65.4	
Stock: Clerical.....	2	1			1	1			100.0	100.0	50.0	
Time: Clerical.....	1	1			1	1			100.0	100.0	100.0	
Parts and stock: Clerical.....	2	1	1		1	1	100.0			100.0	50.0	
Total.....	973	929	37	135	549	721	5.1	18.7	76.2	100.0	74.1	
Grand total.....	4,456	3,552	156	22	529	2,171	2,878	5.4	0.8	18.4	75.4	100.0

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Table 2, and Chart A accompanying it, show the seasonal fluctuations in the labor turnover of the establishment, by actual monthly percentages, for the years ending May 31, 1916, 1917, and 1918, as well as the average monthly turnover percentage for the entire three-year period:

TABLE 2.—SEASONAL FLUCTUATION IN LABOR TURNOVER SHOWN BY ACTUAL MONTHLY TURNOVER PERCENTAGES, FOR THE YEARS ENDING MAY 31, 1916, 1917, AND 1918, AND AVERAGE MONTHLY PERCENTAGE FOR THE THREE-YEAR PERIOD.

Month.	Actual monthly percentage for the year ending May 31—			Average for three years.
	1916	1917	1918	
June.....	8.6	5.5	6.5	6.7
July.....	8.0	7.2	6.1	7.1
August.....	5.6	8.7	7.2	7.2
September.....	4.5	7.5	9.2	7.1
October.....	2.9	6.3	5.3	4.8
November.....	3.9	5.5	4.3	4.6
December.....	2.8	3.8	2.9	3.2
January.....	5.7	5.2	2.6	4.7
February.....	3.6	4.3	2.7	3.5
March.....	1.5	6.5	5.0	4.6
April.....	6.8	7.1	8.3	7.4
May.....	6.3	6.7	7.7	6.7
Total.....	60.2	74.3	67.8	67.6

The general tendency of labor turnover to fluctuate definitely with the seasons of the year is shown most clearly in the last column of Table 2, the figures of which column are shown graphically in the heavy curve of Chart A. The largest turnover occurs during the spring and summer months. The extent of turnover begins to diminish at the end of the summer, goes down gradually during the fall, and reaches its lowest point during the winter months. The seasonality of labor turnover may definitely be observed, in a general way, in the separate curves of Chart A, which shows the seasonality of turnover for each of the three years of the period.

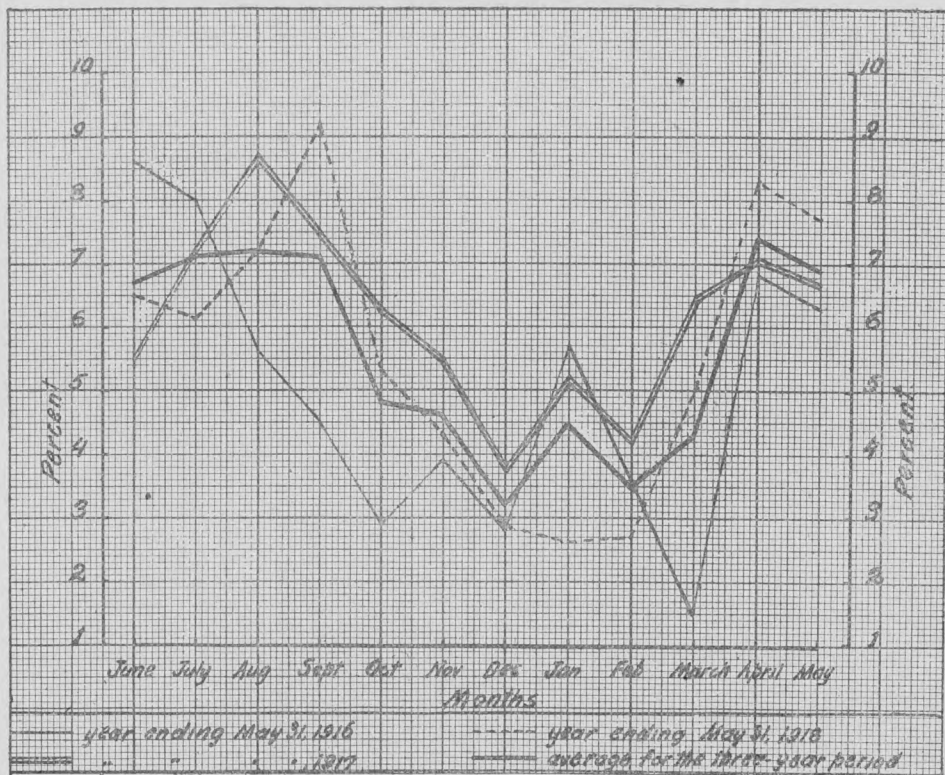


CHART A.—SEASONABLE FLUCTUATIONS IN LABOR TURNOVER DURING EACH OF THE THREE YEARS ENDING MAY 31, 1916, 1917, AND 1918, SHOWN IN MONTHLY PERCENTAGES.

Table 3 shows the length of continuous service of persons in the employ of the company on June 4, 1918:

TABLE 3.—LENGTH OF CONTINUOUS SERVICE OF PERSONS IN EMPLOY ON JUNE 4, 1918.

Shift.	Employees who had served continuously each classified period.										Total.
	Under 7 days.	7 days and under 2 weeks.	2 weeks and under 1 month.	1 and under 3 months.	3 and under 6 months.	6 months and under 1 year.	1 and under 2 years.	2 and under 3 years.	3 and under 5 years.	5 years and over.	
	Number.										
Day.....	63	61	34	332	253	622	559	420	626	652	3,672
Night.....	32	24	24	156	137	161	146	113	159	120	1,022
Total.....	95	85	58	488	390	783	705	533	785	772	4,694
	Per cent.										
Day.....	1.7	1.7	0.9	9.2	7.0	17.2	15.4	11.6	17.3	18.0	100.0
Night.....	3.0	2.2	2.2	14.6	12.8	15.0	13.6	10.6	14.8	11.2	100.0
Total.....	2.0	1.8	1.2	10.4	8.3	16.7	15.0	11.4	16.7	16.5	100.0

The effect of the relatively low labor turnover shown in Table 1 may be seen from the figures given in Table 3, which show that more than three-fourths of the total employees had a record of continuous service of six months or more. The greater turnover of the night shift is shown by the fact that the proportion of its employees in service less than six months was larger than that of the day shift, the corresponding figures given for each of the shifts being 34.8 per cent and 20.5 per cent.

Table 4 shows the length of continuous service of employees who were separated, for all causes, during the year ending April 1, 1918:

TABLE 4.—LENGTH OF CONTINUOUS SERVICE OF EMPLOYEES WHO SEPARATED, FOR ALL CAUSES, DURING YEAR ENDING APR. 1, 1918.

Shift.	Employees who had served continuously each classified period.										Total.
	Under 7 days.	7 days and under 2 weeks.	2 weeks and under 1 month.	1 and under 3 months.	3 and under 6 months.	6 months and under 1 year.	1 and under 2 years.	2 and under 3 years.	3 and under 5 years.	5 years and over.	
	Number.										
Day.....	108	63	101	478	465	415	212	180	81	61	2,164
Night.....	27	25	34	174	135	145	95	60	15	11	721
Total.....	135	88	135	652	600	560	307	240	96	72	2,885
	Per cent.										
Day.....	5.0	2.9	4.7	22.1	21.5	19.2	9.8	8.3	3.7	2.8	100.0
Night.....	3.7	3.5	4.7	24.1	18.7	20.1	13.2	8.3	2.1	1.5	100.0
Total.....	4.7	3.1	4.7	22.6	20.8	19.4	10.6	8.3	3.3	2.5	100.0

¹ The difference between this figure and the total separation figure shown in Table 1 is due to the fact that because of lack of records the day small departments are omitted in Table 1.

On the assumption that the length of service distribution of those in employ was, throughout the year, approximately the same as on June 4, and as given in Table 3, it appears that the groups with service records of less than one year were responsible for more than three-fourths of the separations while actually constituting less than one-half of the working force. The greater tendency to separate, on the part of the short-service workers, may be seen still more clearly from Table 5, which shows the proportions in employ and among the separations of groups of employees having identical terms of service.

TABLE 5.—PROPORTION IN EMPLOY AND AMONG SEPARATIONS OF CERTAIN IDENTICAL LENGTH OF SERVICE GROUPS OF EMPLOYEES.

Length of service group.	Per cent of—	
	Employed.	Separations.
Under 7 days.....	2.0	4.7
7 days and under 2 weeks.....	1.8	3.1
2 weeks and under 1 month.....	1.2	4.7
1 month and under 3 months.....	10.4	22.6
3 months and under 6 months.....	8.3	20.8
6 months and under 1 year.....	16.7	19.4
1 year and under 2 years.....	15.0	10.6
2 years and under 3 years.....	11.4	8.3
3 years and under 5 years.....	16.7	3.3
5 years and over.....	16.5	2.5

The first three short-service groups in Table 5 show proportions of separations two and three times as large as their respective strengths in the organization. Altogether different results are shown by the long-service groups. Two of the latter show proportions of separations of one-fifth or one-seventh their respective strengths in the force of the plant. This indicates that the greatest labor turnover takes place among the newly hired employees.

EMPLOYMENT POLICIES.

The various policies bearing upon the extent of the labor turnover in the working force of this plant may, roughly, be classified into two principal groups, to wit: (1) Methods of hiring, placement, and discharging; and (2) methods of reducing voluntary separations. The latter group may further be subdivided into: (a) Wage policies and changes in wage rates; (b) general conditions of employment; and (c) agencies for the adjustment of grievances.

METHODS OF HIRING, PLACEMENT, AND DISCHARGING.

The establishment secures all its help from among the applicants at the gate of its employment office, without resorting to advertising or to the services of public or private employment agencies. It

maintains a well-organized employment department, in charge of an employment supervisor, who reports directly to the general factory manager or his assistant. The employment department is charged with the duties of securing and sifting out applicants and with the keeping of the requisite employment records.

In its hiring activities this company follows certain policies which, it is thought, are responsible to a large extent for the relative stability of its working organization. Preference in employment, as a rule, is accorded to married men who are over 35 years of age and permanent residents of the city. The method of actual hiring and placement is as follows: Any general foreman in need of help files with the employment supervisor a requisition calling for the number and kind of workers he needs. The employment supervisor looks over all applicants at the gate. When a likely applicant appears, the foreman concerned is requested to interview him for the purpose of finding out definitely his fitness for the job. The applications of those acceptable to the foreman are then reviewed by the respective superintendents of the shop, whose signatures to the applications constitute the final act of hiring. This method of hiring and selection, it is said, has all the advantages of an absolutely centralized hiring system and gives to all officials concerned some degree of participation in the selection of help. This method of selection may be stated to have been successful in view of the fact that less than 2 per cent of the applicants thus hired are found unfit for their positions.

A procedure somewhat similar to the one used in the hiring is followed in discharging.¹ The foreman in direct charge of the work merely recommends dismissals. The recommendation is reviewed by the department superintendent, who, before dismissing the employee, endeavors to have him transferred to some other department. Dismissals made by the superintendents may be appealed to the general factory manager, who is also the vice president of the company. A record of every discharge is kept in the employment department, to which the dismissed employee must report before drawing the wages due.

Careful attention is paid to absenteeism. A record of those failing to report for work is taken every Monday with a view of determining if the extent of absenteeism is "normal," or about 6 per cent. The latter figure represents the average daily proportion of absentees during the year ending April 1, 1918. When an employee who belongs to the employees' sick benefit society fails to report for work he is promptly visited by an official specially designated for that purpose. The membership of the society embraces about 55 per cent of the

¹ The actual extent of discharges in this plant is shown in Table 1.

total number of employees, which per cent indicates to some degree the extent of absenteeism actually followed up.

The average per cent of absenteeism on the night force is slightly below 6 and somewhat smaller than the average proportion of absenteeism on the day force. The following reasons are given to explain the better attendance of night workers: (1) A night worker can easily attend to his outside business during some portion of the day; (2) the night force is better paid and the money loss due to an absence correspondingly greater; (3) the extent of absenteeism due to sickness is probably smaller among the night workers because of the lower average age of the group.

METHODS OF REDUCING VOLUNTARY SEPARATIONS.

WAGE POLICIES AND CHANGES IN WAGE RATES.

During periods of rapidly rising commodity prices, such as have taken place since the outbreak of the war, frequent grants of increases in wages, upon some basis known to employees in advance, exercise no doubt a very potent influence in reducing the extent of voluntary separations. The correctness of this view was quickly realized by the management. In the latter part of 1917 it announced that in the future all wage readjustments will be made in accordance with the changes in the cost of living. The announcement was preceded by a study of changes in the local prices of food, fuel, rent, and clothing. The cost-of-living figures which were thus obtained were based upon the actual records of expenditures kept, upon request, by a group of about 50 of the employees of the company, supplemented and verified by a special price study made by one of the superintendents. The final statistical results thus arrived at by the management were further verified, to a great extent, by the use of the comparative price quotations published regularly by some of the information agencies of the Federal Government. In this manner it was found that during the month of November, 1917, a local family of five expended approximately the following amounts per month: Foodstuffs, \$41; rent, \$22; heat and light, \$10; clothes, \$10; and miscellaneous, \$7, or a total of \$90 per month.

At the time the investigation in question was completed the prevailing average hourly rate for the entire factory was 38 cents, which amount afforded a monthly earning opportunity of about \$96, or \$6 above the minimum monthly expenditure shown above. Because of the fact that a margin of \$6 per month was thought to be too small it was decided to raise the hourly rate of wages as follows: January 1, 1918, to 40 cents; April 1, 1918, to 42 cents. A subsequent order of the general manager, issued on May 2, 1918, announced that "because

of the constantly mounting cost of living and the fact that there is little hope that the prices of commodities will fall," hourly rates will be raised to 44 and 46 cents, respectively, by September 1, 1918, and January 1, 1919. The indicated increases did not affect greatly the very skilled workers, who are receiving wage rates considerably above those newly put into force.

At the present time the prevailing initial hourly hiring rate of adult males on the day force is about 40 cents, which rate affords an earning opportunity of about \$24 per week. The initial hourly hiring rate of night workers is approximately one-third greater.

That the earnings of the employees of this establishment have to a considerable extent kept pace with the increasing cost of living during the last four years may be seen from Table 6, which gives the per cent of increase in the sum total of weekly earnings of groups of identical employees during one representative week of the year 1918 over their aggregate earnings during a representative week of 1914.

TABLE 6.—COMPARISON OF THE AGGREGATE EARNINGS OF GROUPS OF IDENTICAL EMPLOYEES DURING ONE REPRESENTATIVE WEEK OF 1914 AND OF 1918, BY DEPARTMENTS.

Department.	Number of employees.	Per cent of increase in earnings, 1918 over 1914.	Department.	Number of employees.	Per cent of increase in earnings, 1918 over 1914.
Engine No. 1.....	58	93.9	Finish test.....	9	81.5
Engine No. 1 tool room.....	13	106.0	Painting.....	64	81.6
Engine No. 2.....	47	88.9	Electrical.....	4	135.1
Gear turning.....	17	97.9	Tires.....	4	77.8
Brass equipment.....	9	99.3	Truck assembly.....	14	89.3
Tool room.....	14	98.8	Touring-car equipment.....	3	71.2
Axle.....	50	87.1	Car washing.....	3	95.2
Screw.....	32	93.7	Storage.....	1	84.2
Boring mill.....	2	88.2	Crating.....	1	105.5
Frame.....	29	102.2	Trimming.....	17	72.1
Assistant superintendent's office.....	2	83.5	Car order.....	1	50.0
Hospital.....	1	62.5	Shipping order.....	2	76.5
Research.....	4	69.8	Body.....	1	97.0
Gear testing.....	2	64.9	Inside receiving.....	3	92.4
Ball bearing.....	26	84.9	Freight in.....	2	75.0
Gear cutting.....	24	93.6	Outside receiving.....	1	102.3
Hardening.....	8	71.9	Cost.....	1	82.1
Patternmen.....	3	61.8	Time.....	1	142.4
Patterns.....	1	50.0	Stock room.....	6	88.1
Shop clean up.....	8	90.0	Repair.....	15	78.8
Polishing.....	29	100.8	Parts and stock.....	6	96.1
Restaurant.....	1	37.5	Power.....	25	104.6
Carburetor.....	28	82.7	Erecting.....	95	103.4
Garage.....	5	73.7			
Chassis test.....	12	77.3	Total.....	704	90.9

The employees whose earnings are shown in Table 6 were doing the same work in 1918 as in 1914. The question of increased earnings due to increased skill does not, therefore, enter into the calculation. The increase over 1914 in the aggregate weekly earnings of the employees in all departments was 90.9 per cent. The employees in

about two-thirds of the departments increased their earnings more than 80 per cent and in about one-fifth show an increase exceeding 100 per cent.

Table 7 shows the number and per cent of employees who earned each classified weekly amount during one representative week of each of the years of 1914 and 1918:

TABLE 7.—NUMBER AND PER CENT OF EMPLOYEES WHO EARNED EACH CLASSIFIED WEEKLY AMOUNT DURING ONE REPRESENTATIVE WEEK OF 1914 AND OF 1918.

Classified weekly amount.	Employees who earned each classified weekly amount.									
	Day shift.		Night shift.		Total.		Day shift.		Night shift.	
	Week near-est Dec. 14, 1914.	Week near-est May 18, 1918.	Week near-est Dec. 26, 1914.	Week near-est May 11, 1918.	1914.	1918.	Week near-est Dec. 14, 1914.	Week near-est May 18, 1918.	Week near-est Dec. 26, 1914.	Week near-est May 11, 1918.
	Number.					Per cent.				
	1914.	1918.	1914.	1918.	1918.	1914.	1918.	1914.	1918.	1918.
Under \$12.....	400	1	.....	.....	400	1	13.6	0.03	.....	10.4
\$12 and under \$15.....	1,304	32	.....	.....	1,365	32	44.4	.9	.....	35.6
\$15 and under \$18.....	800	49	370	1	1,170	50	27.3	1.4	41.2	30.5
\$18 and under \$25.....	365	1,135	436	9	801	1,144	12.4	31.6	48.6	20.9
\$25 and under \$35.....	66	2,238	25	1,041	91	3,279	2.2	62.2	2.8	70.0
\$35 and over.....	.....	142	6	39	6	181	.....	3.9	.7	3.9
Total.....	2,935	3,597	898	1,090	3,833	4,687	100.0	100.0	100.0	100.0

During the representative week of 1918 less than 2 per cent of the employees earned below \$18 per week. The proportion earning a similar amount during the representative week of 1914 was 76.5 per cent. Thus the major part of the workers in 1914 was earning under \$18, while in 1918 the majority were earning \$25 and over.

The director of labor of this plant is of the opinion that industrial wage plans based wholly upon individual efficiency are "odious" to honest workers and responsible for many resignations of valuable employees. For this reason he is opposed to the utilization of any individual efficiency schemes which might be interpreted as designed to "drive" the employees. The company, therefore, keeps no individual efficiency records. It does keep, however, a record of the collective efficiency of the organization, by comparing the value of the product with its labor cost, with due consideration, of course, to the increased prices of the manufactured product. This method of comparison shows a great increase in efficiency since 1914. It was stated that this increase in the collective efficiency of the organization enabled the company to make the above indicated advances in wages, without incurring very material increases in the relative unit cost of the output. The mentioned increase in efficiency is attrib-

uted by the company to "the increasing scale of production which decreased overhead costs, better machinery and equipment, improved methods of management, and a desire on the part of the men to do a fair day's work without too much of overseeing."

GENERAL CONDITIONS OF EMPLOYMENT.

The management is of the opinion that the various so-called service activities outlined herewith, fully as much as the wages paid and treatment accorded, are responsible for the stability of the working organization.

The bearing, upon labor turnover, of the employment conditions outlined below is too obvious to be referred to repeatedly. Many a separation from a service is motivated by the lack of such provisions as reasonably cool and clean drinking water, or the absence of attractive, sanitary, and reasonably cheap lunch rooms. Both of these are provided by this company. Medical care, as well as the existence of an establishment sick benefit association, by insuring employees against disability, have a definite tendency to render employment in the establishment more desirable. The development and existence of recreational activities, such as bands, ball teams, socials, etc., create a strong organization spirit which has a similar tendency. The organization spirit in this plant is further fostered by the educational work carried on by the factory publication referred to below, which is edited in an interesting and instructive manner.

The hours of labor in this establishment are 54½ and 50 per week, respectively, for the day and night shifts. Night work is paid for at the rate of about one and one-third times the daily rates. The daily force has a basic eight-hour day; that is, all work over eight hours in any one day is paid for at overtime rates, which are 50 per cent greater.

Shower baths are supplied for the use of the members of the various athletic teams as well as all employees of the paint shop, who use lead in connection with their work. Locker rooms are provided for each department and are used by all the employees. In certain departments, where individual lockers appear to be unsatisfactory, the company equips special rooms with clothes hooks, which hooks are numbered to correspond with the time cards of the men.

The factory employees eat in the locker rooms of the departments, where tables are provided for that purpose. Food, at reasonable prices, may be secured from the factory lunch room, called the soup kitchen. A restaurant is also provided for the use of executives and office help. The soup kitchen, during 1917, furnished the following daily averages of food: Bowls of soup, 1,375; sandwiches, 2,600;

cups of coffee, 1,103; bottles of milk, 625. The factory restaurant served daily an average of 215 meals. The charges of the restaurant and the soup kitchen are relatively low, and there is therefore an annual deficit in their operation. The restaurant and soup kitchen losses during 1917 amounted to \$16,957.53.

The drinking water of the factories is furnished by the city, and delivered in sanitary fountains, after a special filtration through a Loomis-Manning filter. It is kept sufficiently cool by means of a refrigerating system. From time to time special chemical analyses of the drinking water are made.

The establishment maintains an employees' band of 40 pieces and an orchestra. Members of these musical organizations practice on the company's time and render concerts twice a week at the noon hour. These organizations also supply music for the various gatherings of the men, such as picnics, baseball games, etc. There is also a men's glee club of about 35 members. During 1917 the plant supported two factory baseball teams and one soccer football team. The cost of maintaining the mentioned activities during 1917 was \$5,565.61, which amount was furnished by the company out of the special fund referred to elsewhere in this study.

Two first-aid hospitals are located conveniently in the plant. These hospitals are kept open all the time and are in charge of a surgeon who is assisted by a trained nurse. No first aid is rendered on the premises where the work is actually carried on, every disabled employee, no matter how slight the disability, being brought to the hospital for attention. In addition to the surgical staff there is a medical department in charge of a physician. Any employee feeling indisposed is privileged to ask for medical service or attention, without cost to the employee, provided the patient is able to continue at work, or call at the factory medical office. Prescriptions are also furnished free of charge. Employees having eye troubles may avail themselves, without charge, of the services of a consulting oculist. The company has an arrangement with one of the hospitals of the city whereby beds are reserved at all times for its disabled employees.

During the year 1917, 20,038 surgical and medical calls were handled by the medical staff of the establishment. This figure represents an average of about five medical calls per employee. The surgical department attended to 12,680 calls of accident disability and furnished 73,313 dressings. The medical department cared for 5,736 calls and filled 11,472 prescriptions. The amounts expended by the health service during 1917 were as follows: Surgical, exclusive of money compensation, \$15,936.06; medical, inclusive of prescriptions, \$6,552.04; outside hospitals and doctors, \$2,871.67.

There exists in this establishment an employees' sick benefit society which, for a premium of 50 cents per month, and after a waiting period of seven days, pays a benefit of \$10 per week during the first 21 weeks and \$7 per week for the next 20 weeks. The society also pays a death benefit of \$250. Any employee of the company in service one month may join the society, upon payment of an initiation fee of \$1. At the present time more than 55 per cent of the employees belong to the society. The total income of the benefit society for the year ending December 31, 1917, was \$21,802.14, of which amount \$2,333.90 was contributed by the company. The contribution of the firm consists of a cash payment of one-fifth of the amounts paid in by the members and in supplying all the administrative and clerical help needed. The expenditures of the society during 1917 amounted to \$18,638.81, of which sum \$3,250 was paid out in death benefits and \$15,150.36 in sick benefits, in 13 and 475 cases, respectively.

In connection with the sick benefit society the employees maintain a factory cooperative store in which are sold food, tobacco, and other staple goods, such as overalls, cheap tools, etc. The store also does laundry work. Seventy per cent of the profits of the enterprise are turned over to the employees' sick benefit society, the remaining 30 per cent being assigned to the promotion of the various amusement activities. During the year ending December 31, 1917, the cooperative store did a business of over \$50,000 and made a net profit of \$5,338.90, or about 10.7 per cent. Exclusive of charges for rent, light, and heat, all of which were furnished by the company free of charge, the administrative costs of running the business amounted to less than 5 per cent of the sales.

A gymnasium is provided for the use of the heads of departments and other men who occupy relatively important executive positions. Three classes, containing at the present time a total of about 60 executive employees, participate in the gymnastic exercises. The physical instruction is in charge of an experienced athletic director and consists of passing the medicine ball, setting-up exercises, stall-bar work, handball, wrestling, club swinging, bag punching, and many other forms of exercises, followed by the taking of shower baths. Upon entering the gymnasium classes all men are required to undergo a careful physical examination. Members found to be nervous, underweight, or suffering with some minor ailment, are given medical attention and advised as to the proper course to pursue to improve their physical condition. The results of this training have been gratifying to both the company and the men. Officials of the company emphasize the great value of these physical exercises in "keeping foremen and superintendents in good humor,"

which is conducive to the proper handling of the employees in their charge.

To carry on the various medical and recreational activities, the company maintains a special fund. The expenditures of this special fund amounted to \$62,554.52 during the calendar year ending December 31, 1917. The following is an itemized statement of the expenditures of this fund, which statement indicates the cost of the various activities: Surgical (surgeon, nurses, workmen's compensation, outside hospitals, and doctors, etc.), \$28,153.78; medical (physician, nurses, medicines, etc.), \$6,552.04; amusement (baseball, bands, receptions, tennis), \$5,565.61; contribution and donations to benefit society, \$2,333.90; restaurant deficit, \$4,683.90; soup kitchen deficit, \$12,273.63; miscellaneous (printing of factory paper, donations, etc.), \$2,991.66.

The company does not attempt to study the home life of its employees. Recently, however, it began the publication of a factory magazine, which is issued biweekly and mailed to the home of each employee. The object of the publication is twofold: (1) To give individual employees a clear idea of the general policies of the company, through editorials; (2) to furnish educational information bearing on economic, hygienic, etc., subjects. The magazine is edited by an experienced newspaper woman. Each issue is divided into the following departments: Editorials on the company's labor and business policies, health, nursing, legal advice, transactions of the employees' sick benefit society, financial advice, sports and physical training, technical articles, cartoons and illustrations, social, shop, and music items.

As yet no necessity has been felt for devoting much attention to the question of employees' housing. From time to time, however, careful inquiries are made into the character of the street-car service on the lines leading from the homes of the employees to the factory. These studies are made with a view of requesting improvements in the service from the street railway management.

AGENCIES FOR ADJUSTMENT OF GRIEVANCES.

With the existing industrial unrest the urgency of having democratically organized agencies for the prompt adjustment of employees' grievances is great. Numerous separations from a service, with a consequent increase in the labor turnover, are occasioned by the absence of grievance adjustment channels through which aggrieved employees may register their complaints and have them adjusted. The imperative necessity of having such adjustment agencies was realized by the management of this plant as far back as 1915, when departmental committees of employees for the hearing and adjust-

ment of grievances were created. The original announcement creating these committees in 1915 stated that they were called into existence "to enable the employees to get acquainted with the management and its policy of operating the plant, thereby securing the advantages of a small shop; to overcome misunderstandings due to the transmission of policies through numerous officials; and to give each employee an opportunity to express himself concerning his work and the conditions under which he is performing same."

A committee is elected in each department by popular vote, in the ratio of 1 member for each 10 employees. The membership of certain proportions of these committees expires every month, which fact enables a greater number of employees to serve. Meetings are held at scheduled hours every alternate week, on the company's time, the sessions lasting from 30 to 90 minutes.

Each departmental committee elects its own president and secretary. The former serves as chairman of the meetings, and the latter keeps a record of the proceedings for the purpose of finding out if the suggestions passed upon by previous sessions have been carried out by the management or the men. If any have not been, individual or collective grievance is brought to the attention of one of the departmental representatives, who subsequently brings it before the session of the organization. After discussing the merits of the complaints a vote is taken and the result communicated to the management. The committees thus serve as agencies for the filing of complaints and the adjustment of grievances.

The committees may discuss any subject. The following are some of the subjects discussed during the last few months: Cooperative buying and distribution of coal and potatoes; the substitution of frosted bulbs for glaring lights in certain departments; fines for failures to report on time; poor street-car service; inquiry regarding the date when a general raise of wages will be made; the necessity of chemically analyzing the drinking water; dirty dishes in the lunch rooms; the wage policy of the company; the cost of living; the workings of the sick benefit society; safety; hours of labor during hot weather; improvements in the ventilation; hot water in wash rooms; savings on materials; improved tools for certain classes of work; the removal of certain departments to more airy places; the reasons of the company for refusing to employ female labor.

The management of the establishment emphasizes the fact that the committees have brought about many improvements and furnished an effective method for the satisfactory and prompt adjustment of grievances.

LABOR AND THE WAR.

AWARDS AND DECISIONS OF THE NATIONAL WAR LABOR BOARD.

BRIDGEPORT MACHINISTS AND OTHER EMPLOYEES.

The disaffection which has been more or less acute during the last nine months among the workers on munitions and related industries in Bridgeport, Conn., was referred to the National War Labor Board in July for settlement. After an exhaustive investigation of the questions at issue and the failure on the part of the board to reach a unanimous agreement upon certain disputed points, Mr. Otto M. Eidlitz was unanimously agreed upon as umpire, under the provisions of the proclamation of the President, to pass upon the disputed questions.

The controversy, which affects the management of 66 plants and approximately 60,000 workers, has been on the question of reclassification of trades and demands of the employees for wage increases to meet the increased cost of living.

The decision of the umpire, as approved by the board on August 28, 1918, was accepted by the employees, but many of the men refused to agree to the terms. The decision of the umpire is as follows:

The Bridgeport controversy was originally concerned solely with the machinists. Later, by the action of the board in assuming jurisdiction, the case was extended to include practically all the workers in the munition and related trades in Bridgeport. The major portion of the hearings was devoted to a discussion of the machinists' grievances. Some few other trades appeared and presented formal statements of grievances, but a large number of the employees had no representation at all or did not have their cases presented.

The controversy was so exhaustively investigated by the chairmen and members of the National War Labor Board that a vast amount of evidence and exhibits has been made available bearing directly or indirectly upon the questions at issue. From the hearings attended by the umpire it would appear that on certain questions and methods both sides are in substantial accord, but are deadlocked on the following: The eight-hour work day; classification of trade and minimum wage.

Although certain definite principles and policies have been laid down for the functioning of the National War Labor Board, governing the relation between workers and employers in war industries for the duration of the war, it must be recognized that the war needs of the country must have the first consideration both by employer and employee and that in this time of stress it is the duty of each to rigidly adhere to those rules and principles which master minds have created for our guidance in all labor controversies during the period of the war.

The records show that the Council of National Defense, the War Department, and the American Federation of Labor have at various times since April, 1917, issued

statements which indicate that what is generally known as the "open shop" shall not be discriminated against by the "closed shop" during the period of the war, and that both shall work harmoniously together for the common weal to the end that the war may be brought to a successful conclusion.

During the last year various labor controversies have occurred, the solution of which has indicated a departure from the statements and policies enunciated by both sides, and with the advent of the controversy in Bridgeport we come to one of such vast importance in the war program and so complex that the solution of it must be approached with the greatest deliberation and care, and both sides to the controversy should realize that hasty action, especially in this case, would be a menace to our successful conduct of the war.

THE EIGHT-HOUR WORK DAY.

The National War Labor Board, under "Hours of labor," states the following:

"The basic eight-hour day is recognized as applying in all cases in which existing law requires it. In all other cases the question of hours of labor shall be settled with due regard to governmental necessities and the welfare, health, and proper comfort of the workers."

In view of the fact that the evidence proves that an overwhelming majority of the firms, parties to this controversy, have through the operation of this principle, or voluntarily, conceded an eight-hour work day to the workers in their shops, it is only reasonable that those firms which hold a different opinion should comply with the will of the majority, and hence the eight-hour work day should be established in all shops and factories subject to this ruling. I am constrained to come to this conclusion, knowing the dissatisfaction and consequent interference with output that accrues in a manufacturing community where a basic work day has come to be generally recognized but is resisted by a minority.

CLASSIFICATION OF TRADE AND MINIMUM WAGE.

For many years Bridgeport manufacturers have been operating under the open-shop methods. To attempt suddenly to change this condition would so seriously upset the industries working under various methods of operation and kinds of contracts that the needs of our country would be jeopardized. The National War Labor Board principles govern the umpire as well as the board. They state:

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

"Employers should not discharge workers for membership in trade-unions, nor for legitimate trade-union activities. The workers, in the exercise of their right to organize, should not use coercive methods of any kind to induce persons to join their organizations nor to induce employers to bargain or deal therewith.

"In establishments where the union shop exists the same shall continue, and the union standards as to wages, hours of labor, and other conditions of employment shall be maintained.

"In establishments where union and nonunion men and women now work together and the employer meets only with employees or representatives engaged in said establishments, the continuance of such conditions shall not be deemed a grievance. This declaration, however, is not intended in any manner to deny the right or discourage the practice of the formation of labor unions or the joining of the same by the workers in said establishments, as guaranteed in the preceding section, nor to prevent the War Labor Board from urging or any umpire from granting, under the machinery herein provided, improvement of their situation in the matter of wages, hours of labor, or other conditions as shall be found desirable from time to time."

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In support of their contention the workers have cited the case of the shipyards, where classification of trades and minimum wages have been granted. This is not a parallel case to the situation in Bridgeport, because most of these shipyards were created within the year, and their workers recruited to a large extent from organized labor in the building and allied trades, in which trades classification and minimum wage had long been recognized.

The Wright Martin Aircraft, The Bethlehem Steel, and The Worthington Pump awards were made in plants that were practically under control of the Government. The Government, having recognized classification and minimum wage in its arsenals and navy yards, followed its own precedence in these cases.

In Bridgeport, however, we find these various shops and manufacturers operating on war work direct or secondary, and on many other essential products, but under such varied conditions of operation and contract that under the principles enunciated above, and under the pronouncements made by the various governmental departments and the Federation of Labor, I must deny the right to the worker to receive at this time classification of trade and the minimum wage.

The representatives of the War Labor Board have agreed that, in accordance with the principles of the National War Labor Board, the right of employees to bargain collectively is recognized and is guaranteed to the workers of Bridgeport. This recognition admits that we have passed from the day of the individual to the day of the group, and that the will of the group should have precedence over the will of the individual.

The members of the National War Labor Board have also agreed that Bridgeport should have a local board of mediation and conciliation of six members, three from each side. They have also agreed that the War Labor Board shall appoint an examiner.

Here, then, we have the beginning of an organization which has been accepted by the representatives of both sides on the War Labor Board, to map out a plan with the aid of the employers and employees of Bridgeport, to introduce the principle of collective bargaining, and to provide ways and means for allaying the labor unrest due largely to the dilution of labor which the war needs have made necessary.

It must be realized that, due to the complexity of conditions existing in the factories and shops of Bridgeport, the element of time and care must enter, so that an equitable proposition as between the parties at issue may result. I would designate a period of six months, the report to be ready March 1, 1919.

In view of this decision, and in order to determine the compensation the workers in these Bridgeport plants should receive, I find that the employers have submitted a very comprehensive report, including the prewar wage scale, the scale as of June, 1918, and the percentage of increase in cost of living, and I hereby rule that the increases offered by the employers for the workers in Bridgeport are fair and reasonable and should be accepted.

AWARD.

1. *Minimum wage for men.*—In no case shall any male employee 21 years of age or over receive less than 42 cents per hour.

2. *Minimum wage for women.*—In no case shall any female employee 18 years of age or over receive less than 32 cents per hour, and where women are employed on work ordinarily performed by men, they shall be accorded equal pay for equal work, and must not be allotted tasks disproportionate to their strength.

In all cases where women perform the same work as men, their pay shall be the same.

3. *Hours of labor.*—Eight hours shall constitute a day's work. All time worked in excess of a regular work day shall be considered overtime and paid for at the rate of time and a half, but Sundays and holidays shall be paid for at the rate of double time. The definition of what days constitute holidays shall be settled by the local board.

4. *Wage adjustment.*—The following hourly wage rates are hereby decreed to apply as of the date on which the award is effective:

Those receiving—

- 40 cents per hour shall be paid 46 cents per hour.
- 41 cents per hour shall be paid 47 cents per hour.
- 42 cents per hour shall be paid 48 cents per hour.
- 43 cents per hour shall be paid 49 cents per hour.
- 44 cents per hour shall be paid 50 cents per hour.
- 45 cents per hour shall be paid 51 cents per hour.
- 46 cents per hour shall be paid 52 cents per hour.
- 47 cents per hour shall be paid 52½ cents per hour.
- 48 cents per hour shall be paid 53 cents per hour.
- 49 cents per hour shall be paid 54 cents per hour.
- 50 cents per hour shall be paid 55 cents per hour.
- 51 cents per hour shall be paid 55½ cents per hour.
- 52 cents per hour shall be paid 56½ cents per hour.
- 53 cents per hour shall be paid 57½ cents per hour.
- 54 cents per hour shall be paid 59 cents per hour.
- 55 cents per hour shall be paid 60 cents per hour.
- 56 cents per hour shall be paid 61 cents per hour.
- 57 cents per hour shall be paid 62 cents per hour.
- 58 cents per hour shall be paid 63 cents per hour.
- 59 cents per hour shall be paid 64 cents per hour.
- 60 cents per hour shall be paid 65 cents per hour.
- 61 cents per hour shall be paid 66 cents per hour.
- 62 cents per hour shall be paid 67 cents per hour.
- 63 cents per hour shall be paid 68 cents per hour.
- 64 cents per hour shall be paid 69 cents per hour.
- 65 cents per hour shall be paid 70 cents per hour.
- 66 cents per hour shall be paid 71 cents per hour.
- 67 cents per hour shall be paid 72 cents per hour.
- 68 cents per hour shall be paid 73 cents per hour.
- 69 cents per hour shall be paid 74½ cents per hour.
- 70 cents per hour shall be paid 75½ cents per hour.
- 71 cents per hour shall be paid 77 cents per hour.
- 72 cents per hour shall be paid 78 cents per hour.
- 73 cents per hour shall be paid 78 cents per hour.
- 74 cents per hour shall be paid 78 cents per hour.
- 75 cents per hour shall be paid 78 cents per hour.
- 76 cents per hour shall be paid 78 cents per hour.
- 77 cents per hour shall be paid 78 cents per hour.

No increase above 78 cents per hour.

5. *No reductions.*—The revision of wages provided for in this award shall in no case operate to reduce wages or earnings of any employee.

6. *Collective bargaining.*—The right of the employees to bargain collectively is recognized by the National War Labor Board; therefore the employees in the plants shall be guaranteed this right.

7. *Local board.*—A local board of mediation and conciliation, consisting of six members, shall be established, three members of which shall be selected by the employers and three by the employees, for the purpose of bringing about agreements on disputed issues not covered by this finding. In the event that the local board fails to bring about an agreement, the points at issue shall be referred to the National War Labor Board.

This local board shall be presided over by a chairman, who shall be selected by and representative of the Secretary of War.

The examiner hereinafter provided for shall investigate all charges of discrimination and shall report to the local board with the right to appeal to the National War Labor Board.

8. *Military exemption.*—Where the employers and companies through their officers, or subordinates, or foremen, have made improper use of the selective draft, it shall be first referred to the local board, and by it referred to the War Department, for such action as may be warranted by the facts and the law.

9. *Examiner.*—The National War Labor Board shall detail an examiner to supervise the application of this finding. The examiner shall hear any differences arising between the parties in respect to this finding, and shall promptly render his decision, from which an appeal may be taken by either party to the National War Labor Board. Pending such an appeal, the decision of the examiner shall be enforced.

10. *Duration.*—This finding shall take effect in respect of the various companies as specified in the following paragraph, and the award shall continue for the duration of the war, except as either party may reopen the case before the arbitrators, at periods of six months' intervals, but in no event before February 1, 1919, for such adjustment as changed conditions may render necessary. The companies shall have until October 1, 1918, to complete the back payments on wages herein awarded.

11. *Retroactive feature.*—This award is made retroactive until May 1, 1918, in the case of the following companies:

Remington Arms; Union Metallic Cartridge Co. plant; Liberty Ordnance Co.; American & British Manufacturing Co.; E. W. Carpenter Manufacturing Co.; Bradley Machine Co.; Feeney Tool Co.; Bridgeport Die & Machine Co.; Bridgeport Gun Tool Co.; J. Pederson Machine Co.; S. Lowe & Sons Co.; Lindstrom Tool Works; Electric Compositor Co.; Fred G. Breul; International Tool & Gauge Co.; W. T. Smith Manufacturing Co.; Anderson Die & Machine Co.; H. E. Harris Engineering Co.; H. H. Boushean; F. S. Trumbull;¹ Modern Manufacturing Co.;¹ Bridgeport Machine Tool Co.;¹ Precision Gauge & Tool Co.;¹ Bodreau Co.;¹ F. C. Sanford Manufacturing Co.;¹ Model Tool & Gauge Co.¹

This award is made retroactive until June 26, 1918, in the case of the following companies:

Locomotive Co. of America; American Tube & Stamping Co.; Singer Manufacturing Co.; Bridgeport Brass Co.; A. H. Nilson Machine Co.; Connecticut Electric Manufacturing Co.

This award is made retroactive until July 1, 1918, in the case of the following companies:

Bilton Machine & Tool Co.; Automatic Machine Co.; Holmes & Edwards Silver Co.; Bridgeport Motor Co. (Inc.); Bridgeport Chain Co.; American Chain Co. (Inc.); Bridgeport Coach Lace Co.; Eastern Malleable Iron Co.; Salts Textile Manufacturing Co.; Bryant Electric Co.; Bridgeport Malleable Iron Works; Bridgeport Hardware Manufacturing Corporation; Bullard Machine Tool Co.; Bullard Engineering Co.; Ashcroft Manufacturing Co.; Black Rock Manufacturing Co.; Bridgeport Metal Goods Manufacturing Co.; Raybestos Co.; Handy & Harmon; Bridgeport Cutter Works (Inc.); Hamilton & De Loss (Inc.); Electric Cable Co.; Housatonic Machine & Tool Co.; Coulter & McKenzie Machine Co.; Grant Manufacturing & Machine Co.; Heppenstall Forge Co.; Blue Ribbon Body Co.; Harvey Hubbell (Inc.); Standard Coupler Co.; Manufacturers Iron Foundry; Max-Arms-Machine Co.; Bridgeport Deoxidized Bronze & Metal Co.; Sprague Meter Co.; Remington Typewriter Co.

¹ These companies were mentioned in the Maj. Rogers investigation as involved in strike and investigation, but did not sign the petition submitting case to the War Labor Board.

LETTERS OF PRESIDENT TO EMPLOYERS AND TO STRIKING WORKMEN.

The umpire's decision having been rejected by certain members of the Bridgeport branches of the International Union of Machinists who early in September instituted a strike against their employers, the President on September 13 addressed the following letter to the striking workmen requesting them immediately to return to work and abide by the award of the National War Labor Board:

I am in receipt of your resolutions of September 6, announcing that you have begun a strike against your employers in Bridgeport, Conn. You are members of the Bridgeport branches of the International Union of Machinists. As such, and with the approval of the national officers of your union, you signed an agreement to submit the questions as to the terms of your employment to the National War Labor Board and to abide the award which in accordance with the rules of procedure approved by me might be made.

The members of the board were not able to reach a unanimous conclusion on all the issues presented, and as provided in its constitution, the questions upon which they did not agree were carried before an arbitrator, the unanimous choice of the members of the board.

The arbitrator thus chosen has made an award which more than 90 per cent of the workers affected accept. You who constitute less than 10 per cent refuse to abide the award although you are the best paid of the whole body of workers affected, and are, therefore, least entitled to press a further increase of wages because of the high cost of living. But, whatever merits of the issue, it is closed by the award. Your strike against it is a breach of faith calculated to reflect on the sincerity of national organized labor in proclaiming its acceptance of the principles and machinery of the National War Labor Board.

If such disregard of the solemn adjudication of a tribunal to which both parties submitted their claims be temporized with, agreements become mere scraps of paper. If errors creep into awards, the proper remedy is submission to the award with an application for rehearing to the tribunal. But to strike against the award is disloyalty and dishonor.

The Smith & Wesson Co., of Springfield, Mass., engaged in Government work, has refused to accept the mediation of the National War Labor Board and has flaunted its rules of decision approved by presidential proclamation. With my consent the War Department has taken over the plant and business of the company to secure continuity in production and to prevent industrial disturbance.¹

It is of the highest importance to secure compliance with reasonable rules and procedure for the settlement of industrial disputes. Having exercised a drastic remedy with recalcitrant employers, it is my duty to use means equally well adapted to the end with lawless and faithless employees.

Therefore, I desire that you return to work and abide by the award. If you refuse, each of you will be barred from employment in any war industry in the community in which the strike occurs for a period of one year. During that time the United States Employment Service will decline to obtain employment for you in any war industry elsewhere in the United States, as well as under the War and Navy Departments, the Shipping Board, the Railroad Administration, and all other Government agencies, and the draft boards will be instructed to reject any claim of exemption based on your alleged usefulness on war production.

¹ For further reference to this subject see p. 27.

To the management of the munition plants in Bridgeport the President, upon being advised that the manufacturers had refused to reinstate striking workers, communicated with them, under date of September 17, in the following terms:

My attention has been called to the fact that several thousand machinists and others employed in connection with war industries in Bridgeport, Conn., engaged in a strike to obtain further concessions because they were not satisfied with the decision rendered by the umpire appointed under the authority conferred upon the National War Labor Board. On the 13th instant, I communicated with the workmen engaged in the strike, demanding that they accept the decision of the arbitrator and return to work, and stated the penalties which would be imposed if they refused to do so. The men at a meeting voted to return to work this morning, but I am informed by their representative that the manufacturers refuse to reinstate their former employees. In view of the fact that the workmen have so promptly complied with my directions, I must insist upon the reinstatement of all these men.

NATIONAL REFINING CO., COFFEYVILLE, KANS.

On August 26 the National War Labor Board made an award affecting the National Refining Co. and its employees at Coffeyville, Kans. The grievances and demands in the latter case were: Repudiation of contracts between company and employees; discrimination against union employees; refusal of company to meet or treat with committee of employees; basic eight-hour day; overtime rates; seniority rights of employees; increase in wages to provide living wage scale and meet living conditions in that territory; travel expenses and allowances for men away from home while on road and treatment of men while on road; definition and classification of work; demand for improved sanitary conditions, and demand for minimum-wage scale.

After reciting briefly the history of the case leading up to its reference to the National War Labor Board, the section of the board handling the matter made the following wage award:

Occupation.	Rate per hour (cents).	Occupation.	Rate per hour (cents).
Boiler makers, machinists, and blacksmiths.....	75	Sweat-pan helpers.....	50½
Helpers.....	65	Barrelers.....	57½
Inspectors.....	72½	Barrelers' helpers.....	50½
Carpenters.....	72½	Boiler-house firemen.....	62½
Air-brake men.....	72½	Water tenders.....	57½
Running repair men.....	72½	Boiler washers.....	52½
Truck men.....	62½	Filter-house pumpers.....	62½
Steam fitters.....	67½	Earth burners.....	57½
Helpers.....	57½	Earth burners' helpers.....	50½
Stillmen.....	72½	Agitators treaters.....	59½
Stillmen's helpers.....	62½	Agitators treaters' helpers....	52½
Refrigerator engineers.....	57½	Acid-plant men.....	58½
Pressmen.....	57½	Acid-plant helpers.....	54½
Sweat-pan pumpers.....	57½	Acid-plant straight day men....	57½

BARREL HOUSE.		LOADING ROCK.	
Occupation.	Rate per hour (cents).	Occupation.	Rate per hour (cents).
Head filler.....	54½	First man.....	62½
Filler helper.....	50½	Second man.....	57½
Barrel loader.....	50	Third man.....	47½
Barrel painter.....	50½	STOREROOM MEN.	
Barrel stenciler.....	52½	First storeroom keeper.....	57½
Barrel gluer.....	54½	Second storeroom keeper.....	50½
Head barrel loader.....	60½	OIL TESTERS.	
Local man.....	57½	Oil testers.....	42½
Local man helpers.....	50½	Sample boys.....	32½
Barrel house car checkers.....	47½	Pumpers.....	59½
Head barrel loaders.....	50½	Gaugers.....	50½
GREASE WORKS.		Water drawers.....	52½
Grease makers.....	69½	Trap pumpers.....	50½
Grease makers' helpers.....	54½	Teamsters.....	95
Grease loaders.....	50½	Painters.....	60
Grease work boys, beginning..	32½	Painters' helpers.....	50½
All local men.....	50½	STILL CLEANERS.	
Head oil casers.....	57½	Rate per still.	
Head oil casers' helpers.....	52½	Crude stills.....	\$6.00
Truck drivers.....	¹ \$112.50	High pressure still cleaners....	² 52½
COMPOUND DEPARTMENT.		COKE STILL CLEANERS.	
Compounders.....	67½	Nov. 1 to Mar. 31.....	8.50
Compounders' helpers.....	57½	Apr. 1 to Oct. 31.....	10.00
YARD MEN.			
Flat rate.....	50½		

Coopers shall be paid 55 cents per hour, provided that whenever a higher rate is paid by the Sinclair Refining Co., either by voluntary action of that company or under finding or recommendation of this board, the same rate shall be paid coopers by the National Refining Co.

The basic eight-hour day is established, with time and one-half for all overtime worked and double time for Sundays and holidays, except in the case of shift men. The principles established by the board as to collective bargaining and the discharge of employees were made a part of the award.

POLLACK STEEL CO., CINCINNATI, OHIO.

On August 21 an award was announced in the controversy between the Pollack Steel Co., Cincinnati, Ohio, and its employees over working conditions, hours of labor, and wages. In this award a minimum wage rate of 40 cents per hour is fixed for common labor as well as skilled and unskilled labor and a bonus of 5 cents per hour higher than the wages received by day workers is fixed for those working on

¹ Rate per month.

² Rate per hour.

the night shift. The award takes effect as of April 1, 1918. The following is the schedule of rates of wages:

DAY RATE, AXLE SHOP.		HAMMER NO. 14—Concluded.	
Occupation.	Rate per hour (cents.)	Occupation.	Rate per hour (cents.)
Axle maker.....	89	First stoker.....	40
Heater.....	86	Crane tender.....	40
Rougher.....	62	Hammer driver.....	40
Crane tender.....	61		
Fireman.....	60		
Hammer driver.....	61		
TONNAGE RATE, AXLE SHOP.		HAMMER NO. 11.	
Axle maker.....	73	Hammerman.....	105
Heater.....	69	Heater.....	70
Rougher.....	50	First stoker.....	45
Crane tender.....	49	Second stoker.....	40
Fireman.....	48	Third stoker.....	40
Hammer driver.....	49	Fourth stoker.....	40
		Tailer.....	41
		Crane tender.....	40
		Fireman.....	40
		Pole pusher.....	40
		Hammer driver.....	40
HAMMER NO. 10.		HAMMER NO. 12.	
Hammerman.....	92	Hammerman.....	72
Heater.....	60	Heater.....	50
First stoker.....	42	First stoker.....	40
Second stoker.....	40	Tailer.....	40
Tailer.....	40	Crane tender.....	40
Crane tender.....	40	Fireman.....	40
Fireman.....	40	Hammer driver.....	40
Pole pusher.....	40		
Hammer driver.....	40		
HAMMER NO. 14.			
Hammerman.....	72	Tool dresser.....	70
Heater.....	55	Blacksmith.....	60
		Blacksmith's helper.....	45

All other tonnage, piecework, or day rates not herein specified shall be increased fifteen (15) per cent.

SMITH & WESSON CO. PLANT TAKEN OVER BY THE GOVERNMENT.

In his letter to the striking workmen at Bridgeport¹ the President noted the fact that the War Department had, with his consent, taken over the plant of Smith & Wesson Co., at Springfield, Mass., which has been engaged in Government work and which refused to accept the mediation of the National War Labor Board. In its decision, which was referred to in the September issue of the MONTHLY LABOR REVIEW, the War Labor Board recommended that the company discontinue, for the period of the war, its practice of compelling

¹ See p. 24.

employees to sign individual contracts, one clause of which bound the employees not to join a trade-union; that the right to join trade-unions be extended to the workers, and that a system of collective bargaining be established in the Smith & Wesson plant. Under the operation of such a system the workers elect shop committees to represent them in negotiations with the employer on all questions of industrial relations. The demand of the workers for a 25 per cent increase in pay was not conceded in the recommendation, it being stated that the question of wages could best be worked out through the operation of the collective-bargaining system.

In connection with the President's announcement of Government control of the Smith & Wesson Co. plant, the War Department issued a statement referring to the recommendations of the War Labor Board, in which it said:

These recommendations were duly approved by the War Labor Board, and it became the duty of the Smith & Wesson Co., as well as its employees, to comply. The workers have indicated their willingness to do so, but the company demurred on the ground that it had not agreed to submit any of its legal rights to the War Labor Board for determination and that to comply with the award would be to abandon methods upon which it had built its business to a high state of efficiency. Further, in its letter rejecting the War Labor Board's findings, it said:

"The Smith & Wesson Co. sees no reason why it should abandon its lawful and legitimate method of doing business known and proved by it to be conducive to industrial peace and high efficiency for the fantastic method outlined by the War Labor Board in its recommendations for dealing with its employees."

A strike at the Smith & Wesson plant involving demands for collective bargaining, the right to join trade-unions, and the elimination of the individual contract were the direct cause of Government intervention in the controversy between the company and its employees.

The language employed by the company in the foregoing paragraph was held to be calculated to induce other employers to avoid the jurisdiction of the War Labor Board and to defeat the object of the President in its creation, and the company's general attitude toward the reasonable findings of the board was deemed such as might be expected to disturb industry and to interfere with production.

The recommendations contained in the War Labor Board's findings are in thorough accord with the principles and policies to govern industrial relations for the period of the war promulgated by the President and made the constitution of the War Labor Board. These principles and policies were adopted by duly selected representatives of organized employers and workers of the United States. It is the policy of the War Department to give effect to the decisions of the War Labor Board in all cases coming under the jurisdiction of the department.

CLASSIFICATION OF WAR INDUSTRIES TO FACILITATE DISTRIBUTION OF LABOR AND MATERIALS.

On September 3 the War Industries Board prepared and issued a preference list¹ of industries and plants which is put out as the

¹ War Industries Board, priorities division, Circular No. 20, Preference List No. 2, issued September 3, 1918. (Superseding Preference List No. 1, issued Apr. 6, 1918, and all amendments and supplements thereto.)

master key governing the flow of basic industrial elements to the industries essential to the war program. It supersedes all previous listings and is regarded as the basis for industrial exemption from the draft, and as the governing factor in the distribution of labor, capital, facilities, materials, transportation, and fuel. The priorities division has grouped major industries according to their relative importance into four classes, consideration being given in this grouping to these factors: (1) Intrinsic importance of the product for use during the war and the urgency of the demand or the use to which it is to be put; (2) necessity for maintaining or stimulating and increasing the total quantity of production; (3) proportion of the capacity of the industry or plant devoted to the production of essential products. Each industry or plant is given a class number.

Circular No. 20, announcing the reasons for making such classification and including an alphabetical list of the industries so grouped is as follows:

The President has placed upon the chairman of the War Industries Board the responsibility for determining and administering all priorities in production and delivery. The determination of the relative importance of all industries and plants for both production and delivery by a single agency renders it possible to reasonably maintain a well balanced program with respect to the several factors entering into production, which include (a) plant facilities, (b) fuel supply or electric energy, or both, (c) supply of raw materials and finished products, (d) labor, and (e) transportation by rail, water, pipe lines, or otherwise. Without all of these—speaking generally—production is impossible.

In compliance with the directions of the President that plans be formulated whereby there may be "common, consistent, and concerted action" in carrying into effect all priority policies and decisions, the chairman of the War Industries Board has created a priorities board, with the priorities commissioner of the War Industries Board as chairman, consisting of (1) the chairman of the War Industries Board, (2) the priorities commissioner, (3) a member of the Railroad Administration, (4) a member of the United States Shipping Board Emergency Fleet Corporation, (5) a member of the War Trade Board, (6) a member of the Food Administration, (7) a member of the Fuel Administration, (8) a representative of the War Department, (9) a representative of the Navy Department, (10) a member of the Allied Purchasing Commission, and (11) the chairman of the War Labor Policies Board.

The decisions of the priorities board are subject to review only by the chairman of the War Industries Board and by the President.

For the guidance of all governmental agencies and all others interested in (1) the production and supply of fuel and electric energy, (2) in the supply of labor, and (3) in the supply of transportation service by rail, water, pipe lines, or otherwise, in so far as such service contributes to production of finished products, the accompanying designated Preference List No. 2 has been adopted by the priorities board superseding Preference List No. 1 adopted April 6, 1918, and all amendments and supplements thereto.

Where advisable industries as such have been classified and listed. In numerous instances individual plants have been found to be entitled to preference, although the industries to which they belong are not; and in other instances where an industry as such has been accorded a degree of preference particular plants in such industry have

been placed in a higher class. This has necessitated classifying and listing not only industries as such but to a limited extent individual plants, some of which are accorded a higher rating than that accorded the listed industry to which they belong.

The preference list is made up of industries and plants which in the public interest are deemed entitled to preferential treatment. The inclusion of these industries and plants on this list does not operate as an embargo against all others, but the effect is to defer the requirements of all other industries and plants until the requirements of those on the preference list shall have been satisfied.

In the compilation of this list industries and plants have been divided according to their relative importance into four classes, viz, Class I, Class II, Class III, and Class IV. In determining such relative importance consideration and weight have been given not solely to any one, but to all of the following factors: (1) The intrinsic importance of the product itself for use during the War, and the urgency, as measured by time, of the demand or of the use to which it is to be put; (2) the necessity for maintaining or stimulating and increasing the total quantity of production, which in turn depends largely upon the relation of the supply to the demand for essential uses (3) the proportion of the capacity of the industry or plant which is devoted to the production of the essential product.

Where it is imperative not only to maintain but to stimulate and increase production to satisfy abnormal demands created by war requirements a high rating is necessary even though the intrinsic importance of the product may be less than that of other products placed in a lower classification due to the fact that the supply of such other products equals the demand without the stimulus of high priority. Where it is necessary to speed the production of a particular product required at a particular time to carry into effect an important program, a high priority is given, although changing conditions may thereafter suggest and demand a reclassification. Certain plants produce commodities of great relative importance, but at the same time produce other commodities of less relative importance, and under such circumstances consideration and weight is given to the ratio of production between the more important and less important commodities. Instances occasionally arise where individual plants are given preference so long as they are rendering, and so long as it is in the public interest that they should render, a particular service, even though, taking the country as a whole, the supply of their product is ample to meet all demands.

No distinction has been made between any of the industries or plants within any one class, and no significance attaches to the order in which industries and plants are listed within any class.

The industries and plants grouped under Class I are only such as are of exceptional importance in connection with the prosecution of the war. Their requirements must be fully satisfied in preference to those of the three remaining classes.

Requirements of industries and plants grouped under Class II, Class III, and Class IV shall have precedence over those not appearing on the preference list. As between these three classes, however, there shall be no complete or absolute preference. The division into classes is for the purpose of presenting a composite picture of the relative importance of the industries and plants embraced within each group. It is not intended that the requirements of Class II shall be fully satisfied before supplying any of the requirements of Class III, or that those of Class III shall be fully satisfied before supplying any of those of Class IV. The classification does, however, indicate that the industries and plants grouped in Class II are relatively more important than those in Class III and that those in Class III are relatively more important than those in Class IV. It will often happen that after satisfying the requirements of Class I the remaining available supply will be less than the aggregate requirements of the other three classes, in which event such supply will be rationed to the industries and plants

embraced within those classes. In determining a basis for such rationing the relative importance of each industry and plant, according to its class rating, must be considered. It has been found impracticable to prescribe for rationing purposes any general and uniform rule or formula, but the priorities board will from time to time, after conference and in cooperation with each of the several governmental agencies charged with the distribution thereof, determine particular principles, values, and methods of application which may be followed in allocating fuel, power, transportation, and labor, respectively, to the end that proper recognition and weight may as far as practicable in each case be given to the relative importance of Class II, Class III, and Class IV.

Each plant listed as such shall not later than the 15th of each month file with the secretary of the priorities board, Washington, D. C., a report on P. L. Form No. 3 (a supply of which will be furnished on application) covering its activities during the preceding month. Any plant failing to file such report will be dropped from the preference list.

Priorities in the supply and distribution of raw materials, semifinished products, and finished products shall be governed by Circular No. 4, issued by the priorities division of the War Industries Board, under date of July 1, 1918, and all amendments and supplements thereto or substitutes therefor.

The term "principally" as used in listing industries shall be construed to mean plants whose output is not less than 75 per cent of the products mentioned.

This preference list shall be amended or revised from time to time by action of the priorities board to meet changing conditions. The priorities commissioner shall, under the direction of and with the approval of the priorities board, certify additional classes of industries and also certify additional plants whose operations as a war measure entitle them to preference treatment, which industries and plants when so certified shall be automatically included in the preference list.

INDUSTRIES.

Agricultural implements. See Farm implements.	Class
Aircraft: Plants engaged principally in manufacturing aircraft or aircraft supplies and equipment.....	I
Ammunition: Plants engaged principally in manufacturing same for the United States Government and the Allies.....	I
Army and Navy: Arsenal and navy yards.....	I
Army and Navy: Cantonments and camps.....	I
Arms (small): Plants engaged principally in manufacturing same for the United States Government and the Allies.....	I
Bags: Hemp, jute, and cotton—plants engaged principally in manufacturing same.....	IV
Blast furnaces (producing pig iron).....	I
Boots and shoes: Plants engaged exclusively in manufacturing same.....	IV
Brass and copper: Plants engaged principally in rolling, and drawing copper, brass, and other copper alloys in the form of sheets, rods, wire, and tubes...	II
Buildings. See Public institutions and buildings.	
Chain: Plants engaged principally in manufacturing iron and steel chain.....	III
Chemicals: Plants engaged principally in manufacturing chemicals for the production of military and naval explosives, ammunition, and aircraft, and use in chemical warfare.....	I
Chemicals: Plants, not otherwise classified and listed, engaged principally in manufacturing chemicals.....	IV
Coke: Plants engaged principally in producing metallurgical coke and by-products, including toluol.....	I

	Class.
Coke: Plants, not otherwise classified and listed, producing same.....	II
Copper and brass. See Brass and copper.	
Cotton: Plants engaged in the compression of cotton.....	IV
Cotton textiles. See Textiles.	
Cranes: Plants engaged principally in manufacturing locomotive or traveling cranes.....	II
(The term "principally" means 75 per cent of the products mentioned.)	
Domestic consumers: Fuel and electric energy for residential consumption, including homes, apartment houses, residential flats, restaurants, and hotels.	I
Domestic consumers: Fuel and electric energy not otherwise specifically listed.	III
Drugs: Medicines and medical and surgical supplies, plants engaged principally in manufacturing same.....	IV
Electrical equipment: Plants engaged principally in manufacturing same.....	III
Explosives: Plants engaged principally in manufacturing same for military and naval purposes for the United States Government and the Allies.....	I
Explosives: Plants, not otherwise classified or listed, engaged principally in manufacturing same.....	III
Farm implements: Plants engaged principally in manufacturing agricultural implements and farm-operating equipment.....	IV
Feed: Plants engaged principally in preparing or manufacturing feed for live stock and poultry.....	I
Ferro alloys: Plants engaged principally in producing ferrochrome, ferromanganese, ferromolybdenum, ferrosilicon, ferrotungsten, ferrouanium, ferrovanadium, and ferrozirconium.....	II
Fertilizers: Plants engaged principally in producing same.....	IV
Fire brick: Plants engaged principally in manufacturing same.....	IV
Foods: Plants engaged principally in producing, milling, refining, preserving, refrigerating, wholesaling, or storing food for human consumption embraced within the following description: All cereal and cereal products, meats, including poultry, fish, vegetables, fruit, sugar, sirups, glucose, butter, eggs, cheese, milk and cream, lard, lard compounds, oleomargarine, and other substitutes for butter or lard, vegetable oils, beans, salt, coffee, baking powder; soda and yeast; also ammonia for refrigeration.....	I
Foods: Plants engaged principally in producing, milling, preparing, refining, preserving, refrigerating, or storing food for human consumption not otherwise specifically listed; excepting herefrom plants producing confectionery, soft drinks, and chewing gum.....	III
Food containers: Plants engaged principally in manufacturing same.....	IV
Foundries (iron): Plants engaged principally in the manufacture of gray iron and malleable iron castings.....	IV
Fungicides. See Insecticides and fungicides.	
Gas. See Oil and gas; also Public utilities.	
Guns (large): Plants engaged principally in manufacturing same for the United States and the Allies.....	I
Hospitals. See Public institutions and buildings.	
Ice: Plants engaged principally in manufacturing same.....	III
Insecticides and fungicides: Plants engaged principally in manufacturing same.	IV
Laundries.....	IV
Machine tools: Plants engaged principally in manufacturing same.....	II
Medicines. See Drugs and medicines.	
Mines: Coal.....	I
Mines: Producing metals and ferroalloy minerals.....	II

Mines: Plants engaged principally in manufacturing mining tools or equipment.	Class. III
Navy. See Army and Navy.	
Navy Department. See War and Navy Departments.	
Newspapers and periodicals: Plants engaged principally in printing newspapers or periodicals which are entered at the post office as second-class mail matter	IV
Oil and gas: Plants engaged principally in producing oil or natural gas for fuel, or for mechanical purposes, including refining or manufacturing oil for fuel, or for mechanical purposes.....	I
Oil and gas: Pipe lines and pumping stations engaged in transporting oil or natural gas.....	I
Oil and gas: Plants engaged principally in manufacturing equipment or supplies for producing or transporting oil or natural gas, or for refining and manufacturing oil for fuel or for mechanical purposes.....	III
Paper and pulp. See Pulp and paper.	
Periodicals. See Newspapers and periodicals.	
Public institutions and buildings (maintenance and operation of) other than hospitals and sanitariums.....	III
Public institutions and buildings (maintenance and operation of) used as hospitals or sanitariums.....	I
Public utilities: Gas plants producing toluol.....	I
Public utilities: Street railways, electric lighting and power companies, gas plants and not otherwise classified, telephone and telegraph companies, water-supply companies, and like general utilities.....	II
Public utilities: Plants engaged principally in manufacturing equipment for railways or other public utilities.....	II
Pulp and paper: Plants engaged exclusively in manufacturing same.....	IV
Railways: Operated by United States Railroad Administration.....	I
Railways: Not operated by United States Railroad Administration (excluding those operated as plant facilities).....	II
Railways (street). See Public utilities.	
Rope. See Twine and rope.	
Rope wire. See Wire rope.	
Sanitariums. See Public institutions and buildings.	
Ships (maintenance and operation of): Excluding pleasure craft not common carriers.....	I
Ships: Plants engaged principally in building ships, excluding (a) pleasure craft not common carriers, (b) ships not built for the United States Government or the Allies nor under license from United States Shipping Board....	I
Soap: Plants engaged principally in manufacturing same.....	IV
Steel-making furnaces: Plants engaged solely in manufacturing ingots and steel castings by the open-hearth, Bessemer, crucible, or electric-furnace process, including blooming mills, billet mills, and slabbing mills for same..	I
Steel-plate mills.....	I
Steel-rail mills: Rolling rails, 50 or more pounds per yard.....	II
Steel: All plants operating steel rolling and drawing mills, exclusive of those taking higher classification.....	III
Surgical supplies. See Drugs and medicines.	
Tanners: Plants engaged principally in tanning leather.....	IV
Tanning: Plants engaged principally in manufacturing tanning extracts.....	IV
Textiles: Plants engaged principally in manufacturing cotton textiles, including spinning, weaving, and finishing.....	IV

Textiles: Plants engaged principally in manufacturing woolen textiles, including spinners, top makers, and weavers.....	Class. IV
Textiles: Plants engaged principally in manufacturing cotton or woolen knit goods.....	IV
Textiles: Plants engaged principally in manufacturing textile machinery.....	IV
Tin plates: Plants engaged principally in manufacturing same.....	III
Tobacco: Only for preserving, drying, curing, packing, and storing same—not for manufacturing and marketing.....	IV
Toluol. See Coke; also Public utilities.	
Tools: Plants engaged principally in manufacturing small or hand tools for working wood or metal.....	III
Twine (binder and rope): Plants engaged principally in manufacturing same..	IV
War and Navy Departments: Construction work conducted by either the War Department or the Navy Department of the United States in embarkation ports, harbors, fortified places, flood-protection operations, docks, locks, channels, inland waterways and in the maintenance and repair of same.....	II
Wire rope and rope wire: Plants engaged principally in manufacturing same..	II
Woolen textiles. See Textiles.	
(The term "principally" means 75 per cent of the products mentioned.)	

NATIONAL SERVICE SCHEME OF GREAT BRITAIN.

At the outset of the war the necessity for coordinating all the industrial forces of the nation so that labor could be mobilized and placed where it is most needed was not fully realized, partly because the extent of the war and new methods of warfare could not be foreseen and partly through a lack of realization of the degree of dependency of the armed forces on the industry of the country for a successful prosecution of the war. Little thought was given in the rush to enlist in the opening months of the war to the necessity for maintaining a sufficient supply of skilled labor for the essential industries, and as a result many men who could have done better service outside the army were lost to industry while many of those outside should have been in khaki. With the adoption of compulsory service, with a few exceptions, for men between the ages of 18 and 41, efforts were directed toward safeguarding the personnel of those branches of industry which were essential to the carrying on of military and naval operations. One of the first evidences of official recognition of this fact is found in the decision of the Cabinet in August, 1916, to establish a man-power distribution board whose functions should be to make a survey of the whole field of possible supply and advise the Cabinet as to its most economical means of employment. In December, 1916, Mr. Lloyd-George announced, in connection with other changes, as an important feature of his new program, the adoption of the principle of universal national service. His plan was to schedule industries according to their essential character during the war in

order to set labor free from nonessential industries so that it could at once be enrolled for war work.

In February, 1917, the Ministry of National Service bill was introduced and became a law March 28, 1917. The purpose of this act was "to make the best use of all persons, whether men or women, able to work in any industry, occupation, or service."

Mr. Neville Chamberlain, who was the first head of the department, found the situation demanded the further release of men for the army from munition work, the increase of men in agricultural labor, and increase in the industrial output. Difficulties and delays were met with, because of the lack of definite agreements between different Government departments concerned, and because of a general misunderstanding as to the purpose of the National Service Department. In response to the appeal by the National Service Department about 400,000 enrolled as national service volunteers. This appeal to all kinds of workers to enroll gave the impression, however, that many desirable positions at profitable wages were available and that the department was in effect a great national employment agency. Much useful work was done in spite of this misapprehension, the most important of which was placing on the land, at a critical time, its own national service volunteers, both men and women, and about 60,000 soldiers temporarily released from the army. The department succeeded in establishing the cooperation of employers and employees through the trade committees, but the defect in the system was the failure to place administrative responsibility for recruiting with the department.

In August, 1917, therefore, the War Cabinet decided upon complete reconstruction, and in October Sir Auckland Geddes, K. C. B., M. P., was designated to fill the office of minister of national service and at once took up the task of uniting the recruiting and national service organizations into a single "man-power department."

The functions of the Ministry of National Service, as determined by the War Cabinet, briefly summed up, are as follows:

To review the whole field of man power and to have this information available at all times; to provide for the transfer from civil work not of primary importance or from the army, navy, or air service such numbers of men as are necessary for urgent national work; to determine, subject to the approval of the War Cabinet, the relative importance of different branches of civil work and to prepare from time to time such lists of reserved occupations as are necessary for the maintenance of essential public services and the preservation of a nucleus of civil occupations and industries; to obtain for the military forces such men as can be withdrawn from civil life without detriment to essential industries of all kinds, and to determine the physical

fitness of such men and to provide where necessary for substitution of labor for these men's services.

The department was originally divided into eight sections—labor supply, medical, recruiting, registration, trade exemptions, statistics, finance, and the secretariat. Advisory boards were appointed for the first four sections named and recently the registration and statistical divisions have been united in a single section called the recording department.

WAR WORK VOLUNTEERS.

The new scheme for enrolling war work volunteers was taken up by the new ministry. Up to this time there had been various agencies used for securing the labor required in essential industries, such as the War Munitions Volunteers and the Army Reserve Munition Workers, organizations of the Ministry of Munitions, and the Substitution Volunteer Scheme started by the Ministry of National Service for obtaining men from the less essential trades through the committees of employers and workmen. From November 1, 1917, no further national service volunteers were enrolled under the last-named scheme but those who had already been transferred to work of national importance were retained in their places until the expiration of their agreements. If they were required for a new job they were given an opportunity to enroll as war work volunteers. Any national service volunteers who had not been transferred to work of national importance were released from their obligations. The war work volunteer scheme aims to meet the urgent requirements for labor on work of national importance which may arise from time to time. The war work volunteers sign an enrollment form on which they agree to undertake work of national importance either for the duration of a particular job or for a year. There are three categories of war work volunteers—trade, general, and special. Those in the general class volunteer for a year and the special and trade classes volunteer for a specific job. Professional men (other than medical men) are not asked to enroll as war work volunteers but offers of work from them are dealt with by the professional and business register organized by the Ministry of Labor in connection with the Ministry of National Service.

War work volunteers on transfer receive the rate of wages they were receiving before transfer or the time rate of the district to which they are removed, whichever is higher, and in the former case the difference is recoverable by the employer from the Ministry of National Service. In certain instances a subsistence allowance not to exceed 2s. 6d. (61 cents) daily is given, and if the worker is within daily traveling distance a traveling allowance is granted, or

if he is at a greater distance from home he is given a free railway warrant at the beginning and end of employment. Volunteers under certain conditions may claim out-of-work allowance at the rate of 3s. 6d. (85 cents) a day, these allowances being paid by the Ministry of National Service through the employment exchanges.

DILUTION AND DISTRIBUTION.

Statistics as to the present man power of Great Britain are withheld by the Ministry of Munitions, but an idea of the extent to which women have taken the place of men can be gained from the fact that in January, 1918, more than 4,740,000 women were working for pay, of whom 1,442,000 directly replaced men. These figures do not include the 45,000 or more women employed in military, naval, or Red Cross hospitals, or domestic servants. Alien and prison labor has as far as possible been utilized. It has been a somewhat difficult matter to handle since many have the feeling that it is taking work from the home workers, but under present conditions when every available worker is needed it has been possible to place practically all of them upon work of national importance. Protection has been afforded to proprietors of businesses who have been called to the colors by requiring any person wishing to start in business to take out a license, which has enabled the authorities to prevent aliens from securing the trade of these men.

A division has been formed for the purpose of dealing with the technical matters pertaining to the turning to practical account of the man and woman power. The staff is made up of qualified engineers and of women experienced in the subjects with which they deal. Its purpose is to provide for dilution of industries which are not covered by other Government departments and to fix standards which shall insure the proper proportional employment of skilled, semiskilled, discharged soldiers, women, and other labor. This is accomplished by direct investigations where necessary and by use of all existing data, so that standards which are fair to all factories may be set. These standards are used in determining whether demands of firms for labor should be granted. This work is carried on in close cooperation with the production departments of the Government, so that while labor is safeguarded an adequate supply of products is also insured. Standards insuring the proper output are also set by the division and dilution is carried out in those industries, some of the largest in the country, which are not covered by the Labor Department and other ministries.

Two priority committees have been set up to control the placing of labor. One, the War Priority Committee, consists of Gen. Smuts, the First Lord of the Admiralty, the Secretary of State for War, the

Minister of Munitions, the Secretary of State for Air Service, and the Minister of National Service, who decide what are the most urgent industrial needs. This committee is limited to industrial employment of man power; that is, it determines where labor is to be employed. The other priority committee is the national labor priority committee of the Ministry of National Service. Its function is to carry out through the employment exchanges¹ and trade committees the instructions of the War Priority Committee. In 1917 there were 731,000 vacancies for men and 804,000 for women filled through the employment exchanges.

The problem of one-man businesses has been a serious one, and the effort has been made as far as possible not to destroy them. In cases where it is absolutely impossible to secure anyone to take charge the practice is to exempt a man, especially if he is in one of the lower medical grades—that is, grades 2 or 3, from which men are not taken for general military service, provided he will undertake part-time work of national importance. This part-time work will as far as possible on the part of men thus exempted take the form of assuming the task of running other one-man businesses from which the owners have been withdrawn. Committees are set up in each district to settle details on which the scheme can be carried out.

The schemes developed in a number of towns in connection with this question, with the object of releasing all the men possible for service, are interesting. In one borough in Kent all the grocers signed a resolution agreeing to carry on the business of any man then engaged in the grocery trade who should be called to service, the owner of the business to choose one of the number to manage it, while an assistant to do the manual work should be hired. Nearly all the other industries in the town had similar schemes. In another city all those engaged in the boot-repairing trade formed a limited liability company with a small working capital. An empty factory was taken over and each man was allowed 10 per cent as rental on the value of his machine. If a boot repairer joins the colors his wife takes the boots from the customers and the association collects and repairs them and returns them again to the woman, who receives about 12½ per cent on the transaction, amounting to an average of \$10 per week. The results of the scheme, in addition to the preservation of the business of those in the service, have been better working conditions and increased profits for the men. The problem of cross deliveries in milk—that is, many carts on one street—has been met by dividing the city into districts, the sellers exchanging customers

¹ See MONTHLY LABOR REVIEW for September, 1918, pp. 304 to 309.

among themselves with the condition that if a man goes outside of his district he goes into the Army.

Part-time labor organized by means of part-time committees is being used in increasing degrees. In the section about Liverpool there were in July more than 100 committees formed to deal with this phase of labor recruiting. The chief use to which part-time labor is put is agriculture, but it may be used in salvage of otherwise waste materials, in work in connection with munitions and airplane construction, public services such as tram driving and street cleaning, coal delivery, and volunteer organizations such as the Red Cross, Y. M. C. A., and similar organizations. One munition factory in Liverpool is run entirely by part-time labor and the manager stated that the output was as good at least as other factories. It is impossible for the ministry to set up complete machinery for dealing with part-time labor, as it would involve a large organization and time to get the scheme under way. The most satisfactory way seemed, therefore, to be to decentralize the work of organization down to each town and village and results seem to have justified that decision.

CURTAILMENT OF NONESSENTIAL INDUSTRIES.

It has been necessary to a great extent, in order to keep the necessary supply of men for the fighting forces and for the essential industries, that the nonessential industries should be reduced. The future, however, had to be considered and it was not considered advisable in view of the necessity for meeting trade conditions after the war to crush out all businesses which are not strictly necessary during the war. A certain amount of manufacturing for export is also necessary in order to pay for imports. It is difficult to draw the line absolutely between essential and nonessential industries since the by-products of many nonessential industries are important war goods, as, for example, soap making and silk manufacture, which involve the manufacture of glycerine so essential for explosives and silk waste used in detonating bags. The general policy of the Government has been not to interfere directly with any industry unless direct advantage could be foreseen and the method of curtailing industries has been negative rather than positive since the usual method has been to reduce supplies of raw material either by reducing imports or by withholding materials, to restrict the output or the hours worked, and to draw on the labor supply for work of material importance. The building and allied trades are almost the only ones in which strict control has been exercised, this largely because normally a great many men are employed on them and because building, except on Government work, can to a large measure be deferred until the close of the war. No building work exceeding an

estimated cost of £500 (\$2,433.25) is allowed without special permission from the Government.

EXEMPTIONS.

The reserved occupations committee is one of the important advisory bodies connected with the Ministry of National Service. Its formation dates from the latter part of 1915 when the first attempt to hold a balance between the needs of the army and the supply of men necessary for vital production was made.

The occupations included in the reserved, certified, and protected lists of occupations have changed from time to time as the needs of the army have necessitated modifications either in the occupations exempted or in the age limits. It has been the practice of the committee, however, to endeavor to make its decisions involve a minimum of disturbance or dislocation to the trades while securing the required number of men for the army. In order to carry out this policy the committee has remained in almost constant session so that it could keep in the closest possible touch with industries which were constantly changing as a result of the direct and indirect influences of the war.

The considerations guiding the committee in making decisions as to the extent of reservation in any trade or industry are as follows:

(1) The importance of each industry for the equipment of the forces.

(2) The importance of each industry for the vital needs of the civil population.

(3) The extent to which each industry is engaged in the export trade, and the extent to which valuable exports can be maintained without considerable reservation.

(4) The extent to which each industry is producing necessary articles which would otherwise have to be imported.

(5) The extent to which industries are "pivotal," i. e., occupations in which relatively few men are employed, but those few indispensable to the working of a much larger number of other workpeople. In many trades the reservations relate almost exclusively to such occupations.

(6) The extent to which an occupation needs skill that can only be slowly acquired. Apart from a very few exceptional cases, no protection is accorded to laborers engaged on purely unskilled jobs, or even to men forming a technical class if there seems to be a possibility of substituting other workpeople.

The possibility of the substitution of women for men is always carefully considered and no occupation is reserved, however important, until the committee is satisfied that the substitution of women

is impossible or that all the women available have been used. After the first readjustment of industry to the new conditions it was found that some general alterations could be made in the rules. In order not to shield men who might have entered an industry to escape military service, the date of their entrance as a reason for exemption was set back to August 15, 1915. An age limit, at first only for single men but later for married men, was introduced and the rule was established that men should be taken from certified occupations for general service only.

The schedule of protected occupations which came into effect May 7, 1917, has been revised so as to make available for general service all men medically classified as fit below the age of 23, whatever their occupation, with the exception of a few classes engaged in hull construction and repair. As this "clean cut" would not provide a sufficient number of grade 1 men for the army, a higher age has been fixed in certain occupations below which grade 1 men are recruited. The schedule does not confer the right of exemption from military service if a man is medically classified as fit for general military service unless he satisfies all the following conditions:

- (a) Is engaged in Admiralty, war office, or munitions work, or in a railway workshop, or if not so engaged is enrolled as a war munitions volunteer;
- (b) Is employed in a scheduled occupation;
- (c) Had on January 1, 1917, attained the age set out in the schedule as governing his occupation; and
- (d) Entered the scheduled occupation (not necessarily with the same employer) on or before August 15, 1915; or
- (e) Alternatively to (d) if the occupation is marked (a) in the schedule of protected occupations, entered the occupation (not necessarily with the same employer), before January 1, 1918.

If a man is medically classified lower than grade 1 he must satisfy all the above conditions except (c), and if he neglects or refuses to present himself for medical examination he will be regarded for the purpose of the schedule as being medically classified as grade 1.

Men engaged in certain classes of Government work and in Government departments, especially the contract branch of the War Office, rely on the tribunals and the observance of the provisions of the list of certified occupations for necessary protection in a number of important industries. But for purposes of exemption any such occupation must be the man's principal and usual occupation. The inclusion of an occupation in the list does not automatically exempt the individual workmen, but it is necessary for each man if he is to be exempted

to be in possession of an individual certificate of exemption secured from the proper tribunal.

Certain other lists of reserved occupations are prepared from time to time with such age and other limitations as are necessary to secure the maintenance of essential public services. Bad timekeeping on the part of any man is sufficient cause for removing the protection afforded him by the protected or certified occupation lists, as it is expected that if a man is exempted as being in an essential occupation he will give satisfactory service in the industry in which he is employed.

Certain occupations which are not considered essential are put in the restricted list and employment of men between the ages of 18 and 61 is prohibited. This is accomplished by forbidding any employer to employ such men in the trades listed except—

(a) With the consent of the Director General of National Service for the purpose of expediting a Government contract.

(b) In the case of the employer having previously agreed to take back into employment men who left his service to join the forces.

(c) By requiring any employee in the classified list to give priority to work directly or indirectly required by the Government and by requiring compliance with any directions given by the Director General of National Service in connection with the restricted occupations order.

From the fact that an occupation is on the restricted list it is considered that exemption should seldom need to be asked for. Occasionally, however, it is advisable to allow the employment of a substitute and in that case no man not in one of the lower medical grades or one who has been examined by a recruiting medical board and not accepted for service may be employed.

The application of age limits allowed the committee to withdraw gradually the protection afforded to industry, which had the effect of securing men for the army and yet gave manufacturers time to adjust themselves.

The trade exemptions department, with which the reserved occupations committee is connected, has charge of all questions of recruiting from the point of view of industry, and considers all claims both from groups and from individuals. The work of this department is closely allied with that of the recruiting department. A decided change was inaugurated with the withdrawal of recruiting from the control of the War Office, as the recommendations of the trade exemptions department are now considered as orders where formerly they were considered as requests which were acted upon or not at the discretion of the War Office. In theory the change is greater than it is in reality, as there had been little friction between the two departments, the

greatest benefit resulting from the change being that there are increased opportunities for discussion before a decision is reached. The labor department is also closely associated with these two, since in the present depleted state of the man power of the country trades not only require protection but also reinforcement, and in some cases release of men from the army.

The department is also closely associated with the Admiralty and army contracts departments and the Ministry of Munitions, whose duties in regard to protection of labor dilution and substitution are closely associated with those of national service.

Decisions in regard to the protection needed by any industry are arrived at by consultations with both employers and workpeople and with Government departments which may be affected.

The passage of the Military Service Act in April, 1918, made all men between the ages of 18 and 51 liable to service with the colors or in the reserve for the period of the war. Men who are exempted must, unless the local tribunal directs otherwise, join the volunteer force and attend such drills, undergo such training, and undertake such military duties as may be prescribed.

The first order under the new act, issued in June, 1918, operated to withdraw all certificates of exemption granted by tribunals and Government departments, but did not affect protection certificates issued under the schedule of protected occupations. A decertified man has no right to apply for a renewal of his exemption on occupational grounds nor has his employer right to make any such application on his behalf. Suspension of calling-up notices can be granted only in most exceptional cases and the fact that a man engaged in a trade or occupation referred to in the schedule is not decertified does not in any way confer exemption upon him.

RECRUITING AND TRIBUNALS.

Under the Ministry of National Service the whole of Great Britain is divided into 10 recruiting regions. A director of recruiting is placed in charge of each of these regions, which are subdivided into areas. When recruiting was taken out of the hands of the War Office and placed under the Ministry of National Service it was divided into three sections, under a director general of recruiting, a controller of registration, and a chief commissioner of medical services. The first officer is responsible for recruiting throughout the country, the second for the preparation and maintenance of the register upon which consideration of the available man power is based, and the third provides for the examination and grading of recruits and the provision of medical practitioners for the navy, army, Air Service, and Ministry of Pensions.

In order to secure the greatest possible decentralization each region is organized on a similar basis to that of central headquarters. The National Service medical boards are composed entirely of civilians. The medical examinations are standardized as far as possible. Any man who is dissatisfied with the decision as to his medical fitness may apply for reexamination, and if he still feels that he has cause for complaint he may state his case to an appeal tribunal which will consider his case.

Under a convention between Great Britain and the United States, which was laid before Parliament on July 30, it is provided that there shall be reciprocal liability to service between citizens of the United States resident in Great Britain and British subjects resident in the United States. Any American between the ages of 21 and 30, inclusive, is subject to service in the British Army unless he returns to this country for military service before September 29, or enlists in England in the United States forces. A similar convention was earlier concluded with France and with the Provisional Russian Government.

FEDERATION OF BRITISH INDUSTRIES, AND INDUSTRIAL COUNCILS.

Combination among employers of labor is one of the movements which have received a vitalizing impetus from the war. This seems to be especially true in Great Britain, where several federations either have been initiated since the war began or have developed from embryo alliances already in existence. One of the most powerful of these combinations is the Federation of British Industries. This federation is an association of British manufacturers and producers, having for its purpose the improvement of the general organization of British industry. The membership list issued in May, 1918, includes 124 associations and 691 firms and individuals, representing a total of over 9,000 firms in every trade and industry. On the central council of the federation are represented 75 per cent of the important industries of Great Britain, employing between three and four million workmen and having a capital of over £2,000,000,000 (\$9,733,000,000).

The program of the federation, as stated by R. T. Nugent, the director of the association, is as follows:

The promotion, encouragement, and where necessary the formation of effective and fully representative associations in each trade for discussing and dealing with the affairs of that trade.

The collection of these associations and their leading members in a central federation for discussing and dealing with matters of common interest to all trades and for mutual support.

The organization of this central federation in such a manner that each industry or trade shall be able to express its views through a representative and self-selected

channel, and shall be accorded a voice proportionate to its size and importance in relation to other industries, in the discussion and decision of those questions of common interest which alone are dealt with by the central federation.

The provision of such direct assistance in the promotion and development of British trade as can be given more effectively by a central federation representative of all trades than by the independent action of the associations of different trades.

One of the objects of the association as stated in the rules of the federation is—

The promotion and encouragement of free and unrestricted communication and discussion between masters and workmen with a view to the establishment of amicable arrangements and relations between masters and workmen and to the avoidance and settlement of strikes and all other forms of industrial warfare between masters and workmen.

In common with other organizations of employers or workmen, the federation has taken a keen interest in the industrial council plan set forth by the Subcommittee on Relations between Employers and Employed of the Reconstruction Committee (the so-called Whitley reports)¹ and has issued a report stating its recommendations for the development of that plan.²

The federation indorses the view of the Reconstruction Committee as to the vital importance of securing cooperation between employers and workmen after the war and agrees with the views expressed by that committee as to the important part which associations must play in the settlement of difficult questions.

In the opinion of the federation this point is so important that they suggest that the Government ought to go far to recognize, and give an official standing to, organizations representative of employers and workpeople, respectively, and to encourage the development of such organizations.

The recommendations of the committee are far-reaching and important, but it will be readily admitted that the construction of an organization on the lines suggested is a delicate matter, and the federation notes with satisfaction that in the creation of the proposed organization it is not contemplated that the Government shall actively interfere. The federation desires to emphasize this point and to urge that while sympathetic Government assistance may be, and doubtless will be, of great value it is most important that there should be no suggestion whatever of Government pressure or coercion, and that each trade shall be free to build up its own organization voluntarily and on lines best suited to its peculiar needs.

The federation is of opinion that the basis of the scheme should be trade councils of masters and men, that is to say, that each trade or section of an industry should form a council representative of the employers' organization or organizations, and of the trade-union or trades-unions concerned with such particular trade or section of an industry. This council should have sole power of dealing with agreements of all kinds and any other matters appropriate to the particular trade or section of industry.

In the opinion of the federation, devolution of constructive work to district or works

¹ For reprints of these reports see Bul. 237, pp. 229-237, and MONTHLY LABOR REVIEW for September, 1918, pp. 53-58.

² Federation of British Industries. Industrial councils. Recommendations on the Whitley report. London, 39 St. James St., Aug. 3, 1917. 4 pp.

committees would be very dangerous. It should only be permitted to develop in the light of experience.

It is suggested that the main value of district councils would be to constitute a court of arbitration in the case of any difference between employers and employed in the trade in the district, having regard to the general and any peculiar conditions obtaining in that district.

In the opinion of the federation, the works committee should be entirely voluntary in the case of each individual firm, and not in any way officially constituted. They should consist entirely of representatives of the employees and they should, if possible, be elected by secret ballot. Where instituted, their duties should be confined to reporting to, or receiving from, the management complaints regarding breaches of any agreements which may have been made between the employers and employed.

It appears to the federation that the general principle underlying these suggested councils should be the centralization of policy and the decentralization of administration.

The federation suggests that while the proposed trade, or as they are designated in the report national, councils, may be well suited for discussing questions peculiar to the trade and may provide a suitable court of first instance for the settlement of disputes, it would be highly desirable that superior bodies should exist, consisting (1) of representatives of employers and employed in each group of trades forming an industry, which might possibly be styled "councils of industry," and (2) of representatives of the employers and employed in all industries, which might possibly be styled "The national industrial council."

The councils of industry and the national industrial council would provide suitable courts of appeal from the trade councils in cases of differences between employers and employed in any trade which can not be settled by the trade council. It is not necessary to suggest exact details of procedure, nor is it intended to interfere in any way with existing conciliation boards or other arrangements for settling disputes, but rather to build up similar organizations in industries where they do not at present exist, and only to supplement existing organizations.

The federation is of opinion that provision of methods for preventing or settling differences is almost as important as provision of facilities for cooperative action, and the federation is of opinion that if no strike or lockout could take place until the question had been submitted to final arbitration by a truly national council of employers and employed, there would be good grounds for hoping that the time for reflection afforded and the pressure of popular opinion would insure the loyal adoption of the award.

With regard to the consideration of general questions, amongst which many of the most important are mentioned in paragraph 16 of the report, the federation is of opinion that these should be dealt with primarily by the national industrial council, which should delegate to the councils of industry, and possibly to the trade councils, the consideration of matters of peculiar trade interest in such cases as the national industrial council may think desirable. The final decision in all matters of general policy should be taken by the national industrial council after providing reasonable opportunities of criticism on the part of the councils of industry and trade councils. Nothing in this suggestion, however, is intended to prevent trade councils or councils of industry from initiating the consideration of any matter of general interest.

SYSTEM OF INDUSTRIAL COUNCILS RECOMMENDED BY THE FEDERATION OF BRITISH INDUSTRIES.

It should be particularly noted that nothing in the proposed system of councils is intended to interfere in any way with existing arrangements for settling disputes or dealing with labor questions generally. The intention is merely to build up similar

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organizations in industries where they do not at present exist and to supplement existing organizations.

NATIONAL INDUSTRIAL COUNCIL.

Composition.—Representatives of employers and workpeople from all industries.

Duties.—Final court of appeal in disputes. Primary body for consideration of questions in clause 16 of Whitley report, with powers to allocate specific questions to other councils. Should take final decision in all matters of general policy after giving ample opportunity for discussion and criticism by councils of industry and trade councils.

COUNCILS OF INDUSTRY.

Composition.—Representatives of employers and employed in each group of trades forming an industry (such as the textile trades, etc.).

Duties.—To act as a court of appeal from the trade councils in disputes, to deal with all special matters which may be allocated to them by the national industrial council, to initiate consideration of matters of general interest to the particular industry with which they are concerned, and to forward such matters to the national industrial council if of general interest, and to consider and if necessary forward to the national industrial council any such matter initiated by a trade council.

TRADE COUNCILS.

Composition.—Representatives of the employers' organization or organizations and of the trade-union or trade-unions concerned with a particular trade or section of an industry.

Duties.—First court of appeal in case of disputes. Sole power of dealing with agreements and all other matters pertaining to the particular trade or section, and with any special matters delegated to them by the council of industry or by the national industrial council.

WORK COMMITTEES.

Composition.—An elected body of workpeople in each works, to be set up only by the joint consent of the individual employers and employed concerned, their institution to be entirely voluntary.

Duties.—Reporting to or receiving from the management complaints regarding any breaches of agreements which may have been made between employers and workpeople.

CANADIAN GOVERNMENT'S DECLARATION OF A WAR LABOR POLICY.

An order in council recently issued by the Canadian Government embodies a formal declaration of certain principles and policies that should govern the relations between employers and workmen engaged in war production. The text of the order, as published in the Canada Gazette for August, 1918 (pp. 616-618), is as follows:

REPORT OF THE COMMITTEE OF THE PRIVY COUNCIL, APPROVED
BY HIS EXCELLENCY THE GOVERNOR GENERAL ON THE 11TH
JULY, 1918.

The committee of the Privy Council have had before them a report, dated July, 1918, from the minister of labor, representing that industrial unrest during the past few months has become more general than formerly, thus causing serious interruption

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in some lines of war work, and indications are that it will become more widespread still unless successful efforts be made to check it. This unrest has many causes, among which are the shortage of labor, rapid advance in the cost of many of the necessities of life, employers denying their workmen the right to organize or to meet them in joint conference to discuss requests for improved conditions or to negotiate adjustment of differences; and in others from too hasty action on the part of workmen in ignoring the provisions of the Industrial Disputes Investigation Act and in adopting drastic measures before exhausting every reasonable effort to reach a satisfactory settlement. Wages alleged to be inadequate, together with length of work day said to be too long, are among other frequent causes of such unrest.

The minister, realizing the necessity of steady work and close and sympathetic cooperation between employers and employees to secure maximum results from war efforts, is of opinion that the Government should forthwith adopt such means as may seem practicable for the prevention of such interruption during the continuance of the war, whether caused by lockouts or strikes, and the establishment of such cooperation, while at the same time striving to insure to the workmen adequate compensation for their labor and reasonable safeguards for their health and safety, and to employers fair and reasonable treatment.

The minister is further of opinion that a declaration by the Government of a war labor policy, fair and equitable to all concerned, governing relations between employers and workmen in all industries engaged in war work and including all those mentioned in the Industrial Disputes Investigation Act (except railways), and amendments thereto by Parliament or extensions thereof by order in council, for the duration of the war, would materially contribute to the attainment of these objects.

The minister, therefore, recommends that the governor in council declare the following principles and policies and urge their adoption upon both employers and workmen for the period of the war:

1. That there should be no strike or lockout during the war.
2. That all employees have the right to organize in trade-unions, and this right shall not be denied or interfered with in any manner whatsoever, and through their chosen representatives should be permitted and encouraged to negotiate with employers concerning working conditions, rates of pay, or other grievances.
3. That employers shall have the right to organize in associations or groups, and this right shall not be denied or interfered with by workers in any manner whatsoever.
4. That employers should not discharge or refuse to employ workers merely by reason of membership in trade-unions or for legitimate trade-union activities outside working hours.
5. That workers in the exercise of their right to organize shall use neither coercion nor intimidation of any kind to influence any person to join their organizations or employers to bargain or deal therewith.
6. That in establishments where the union shop exists by an agreement the same shall continue and the union standards as to wages, hours of labor, and other conditions of employment shall be maintained.
7. That in establishments where union and nonunion men and women now work together, and the employer meets only with employees or representatives engaged in such establishments, the continuance of such conditions shall not be deemed a grievance.

This declaration, however, is not intended in any manner to deny the right, or discourage the practice of forming labor unions, or the joining of the same by workers in said establishments as aforesaid, nor to prevent a board of conciliation or other body or adjuster from recommending improvements in the matter of wages, hours of labor, or other conditions, as shall from time to time be found desirable.

8. That established safeguards and regulations for the protection of health and safety of workers shall not be relaxed.

9. That all workers, including common laborers, shall be entitled to a wage ample to enable them with thrift to maintain themselves and families in decency and comfort, and to make reasonable provision for old age.

10. That in fixing wages, minimum rates of pay should be established.

11. That women on work ordinarily performed by men should be allowed equal pay for equal work and should not be allotted tasks disproportionate to their strength.

12. That in all cases where eight hours is by law or agreement the basic day, it shall so continue. In all other cases the question of hours of labor should be settled with due regard to governmental necessities and the welfare, health, and proper comfort of the workers.

13. That a maximum production from all war industries should be sought and methods of works and operation on the part of employers or workers which operate to delay or limit production or which tend to artificially increase the cost thereof should be discouraged.

14. That for the purpose of mobilizing the available labor supply with a view to its rapid and effective distribution as well as constant employment, the managers and operators of industrial establishments and the trade-unions concerned should keep provincial or municipal employment agencies and the Canada registration board fully informed as to labor required or available. Those agencies should be given opportunity to aid in the distribution of labor.

15. That in fixing wages, hours, and conditions of labor regard should be had to the labor standards, wage scales, and other conditions prevailing in the locality affected, always mindful, however, of the necessity of payment of living wages.

16. That to better preserve industrial peace during the war, employers and employees should, after once establishing an agreement as to wages and working conditions, agree to its continuance during the war, subject only to such changes in rates of pay as fluctuation in cost of living may justify.

17. That when employers and employees are unable to arrive at a mutual agreement concerning any existing dispute, unless some other means of settlement is agreed upon by the parties, they should use the machinery provided for in the Industrial Disputes Investigation Act in an endeavor to reach an adjustment.

Should the recommendation of the board of conciliation not be accepted either party may appeal to the board of appeal, who shall review the findings of the board of conciliation and hear such further evidence as either party to the dispute may desire to submit at their own expense, the decision of the board of appeal to be final.

Any settlement of a dispute referred to the board of conciliation, or carried in appeal to the board of appeal, shall be effective not later than the date on which the application for a board of conciliation was filed.

The board of appeal shall be composed of two representatives of labor nominated by the executive council of the Trades and Labor Congress of Canada, two representatives of the employers, nominated by the executive of the Canadian Manufacturers Association, and a chairman nominated by the said members of the board, or, in case of failure to agree upon a chairman, then the minister of labor shall appoint such chairman.

The minister further recommends that the minister of labor be authorized to make regulations governing procedure on appeal provided for by paragraph 17 of the above recommendations.

The committee concur in the foregoing recommendations, and submit the same for your excellency's approval.

It is announced that the board of appeal provided for in the order will not deal with matters arising out of disputes between the railroad companies and their employees, but that for this purpose a railway board of adjustment No. 1 has been formed. This board consists of six representatives of the railroad companies and six representatives of labor, and in case an agreement can not be reached in any dispute, provision is made for the appointment, either by the board itself or the minister of railways and canals, of a referee, whose decision shall be binding.

RECONSTRUCTION IN INDUSTRY.

ENGLISH RECONSTRUCTION PROBLEMS FROM THE STANDPOINT OF EMPLOYERS AND TRADE-UNIONISTS.¹

During March and April of this year a series of conferences was held at Plymouth which led to the formation of an association to be known as the Devon and Cornwall Association for Industrial and Commercial Reconstruction. The report of these conferences is of interest as giving the views of an entirely unofficial body made up of employers and trade-unionists in almost equal numbers, meeting to decide on the principles which should underlie reconstruction and then uniting to secure for these principles an enlightened public support.

Considering the situation in industry and commerce as it had existed before the war, the conferees agreed that the root of difficulty was the distrust and suspicion between capital and management and labor, that in spite of the unifying effect of the war this distrust might easily be revived and even aggravated by the special difficulties of demobilization and reconstruction, and that the most important duty at present is to substitute for the old antagonism a cooperation based on mutual understanding. "No palliatives will suffice. The causes which have created and kept alive distrust and suspicion must be ascertained, faced, and removed."

These causes are given as the dissociation of employees from any share in the control of industry or responsibility for the conditions under which it is carried on, the belief of each side that the other had secured or was trying to secure more than its share of the profits of industry, the workers' fear of unemployment, and the objection of some employers to associations whether of employees or employers. Of these the first is fundamental, but it can hardly be remedied until the present conception of capital and labor as antagonistic forces whose share of profits is determined by their relative strength is banished in favor of an entirely different outlook on life, based on a frank recognition of the solidarity of society. A new attitude is needed:

This new spirit must proceed from a new conception of commerce and industry, and of the consideration due to human life and personality. Commerce and industry

¹ Report on the reconstruction of industry prepared after a series of conferences of Plymouth and Cornish citizens who were also employers and trade-unionists, held at Plymouth in March and April, 1918. London, The Argus Printing Co., 1918. 28 pp.

must be considered in relation to the national life as a whole and be viewed as essential national services. The creation and maintenance of physically sound and mentally developed men and women must be regarded as a definite object for which the community, as a whole, is responsible, and commerce and industry must be reorganized to serve this end. Industry is made for man and not man for industry. If—but only if—this principle is frankly accepted and acted upon by capital, management and labor, we believe that the difficulties of industrial reconstruction can be overcome without a national catastrophe.

As part of the acceptance of this principle the report urges a better understanding between employers and employees, and suggests that for this purpose informal meetings between individuals or groups of employers and employees should be held at once all over the country for an exchange of views on problems relating to industry and commerce. Operatives should in fairness receive a greater part of the returns of industry than has been the case in the past. Workers should be secured against the risk of unemployment, and in return should give up all restrictions on output. Employers and employees alike should organize:

The principle of collective bargaining is sound, and should be widely extended. It should be the definite policy of employers not only to encourage and strengthen the labor organizations but themselves to join and strengthen employers' federations, not for the purpose of antagonism but for consultation and cooperation.

RECONSTRUCTION PROBLEMS.

Turning to the immediate problems of reconstruction, the conferees recommend the adoption of the proposals contained in the Whitley reports, both for organized and unorganized trades. Apart from their obvious function of preventing and settling industrial disputes, the councils which it is proposed to establish may serve another important function:

In our opinion much of the friction and disturbance connected with industry in the past has been due to either (1) the employers or shareholders making excessive profits, or (2) the men suspecting the existence of excessive profits, when this was not actually the case, or (3) inefficient organization and absence of up-to-date business methods which impeded the paying of fair wages and the making of reasonable profits. We believe that under the proposed reorganization and cooperation it will be possible for the Whitley industrial councils to give to all firms in an industry the average costs of production and other essential facts for the whole of the industry (without, of course, disclosing particulars connected with any individual firm). Such information should be of incalculable advantage to firms engaged in the industry. Further, this greater information on the financial factors of industry will either enable the workers to claim that proper share in the prosperity of their industry to which they believe they are entitled or will allay any unfounded suspicion that may have existed as to profiteering.

The conferees recommend a more careful selection and training of foremen and forewomen, on whom to a large degree depends the smooth running of an establishment. The employee is so directly

affected by the character of the foreman that he might well have some voice in the selection. Two alternative propositions are tentatively put forward for meeting what is admittedly a difficult problem:

(1) That in large firms the employer should appoint a small panel from which the employees should select the actual foreman.

(2) That a foreman should not be appointed or continued in office in face of reasoned opposition.

It is recommended also that the employer should adopt a method of dismissal which shall give the employee some right of appeal to an impartial tribunal. Since the employer is financially responsible for the industry, the final decision as to a dismissal should rest with him, but there might be some limitation upon the exercise of his right.

We feel bound to record the fact that the uncontrolled right of dismissal and its arbitrary use is and has been a deep cause of ill-feeling on the part of employees conscious of the human consequences to their families which are apt to follow.

Compulsory conciliation is recommended as a means of preserving industrial peace, but compulsory arbitration is looked upon as likely to cause rather than to cure industrial unrest. Conciliation boards should have more power of initiative than has been the case and special pains should be taken to hasten action, since distrust is apt to arise from protracted negotiations.

DEMOBILIZATION.

The conferees are by no means ready to pronounce on the problems of demobilization, but they put forward recommendations on a few points. They consider that the employment exchanges should be made more efficient and be used more extensively; they believe that the restoration of trade-union customs as they were before the war is practically impossible, but that permanent modifications in those customs should be made only as the outcome of joint arrangement between employers and employees. They believe that it is impossible to advocate the immediate dismissal of all women who have taken the place of men in industry owing to the war, and they also believe that the loss and destruction due to the war can be repaired only by a collective and national increase in production, to secure which the help of women will be needed. They agree with the analysis of wages into (1) a basic or minimum wage, and (2) a secondary wage or supplementary income which an employee may earn as the result of acquired aptitude, extra effort, or natural physical or mental endowment, but they are not prepared to lay down the principles by which the basic wage should be determined.

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State Normal College Library,
Cape Girardeau, Mo.

Considerable attention is given to the problems connected with the increased employment of women, but no general program for dealing with the situation is presented. On social grounds the conferees recommend the exclusion from industry of women with dependents (children or incapacitated husbands), who should receive adequate pensions, and they also ask for a commission to investigate the effect of different employments upon the health and physique of women workers.

It is strongly recommended that steps be taken to prevent the introduction of partially disabled soldiers as cheap labor:

Their pensions should not be allowed to count in the fixing of wages. It is necessary to assess (through some tribunal) the relation of a disabled man's earning capacity to the earning capacity of an able-bodied adult. As disabled men are getting on the market to an increasing extent, we look on this matter as one of urgency.

The cost of unemployment, the conferees think, will have to be borne to a larger extent than heretofore by the industry in which it occurs. The State will have an important part to play in regularizing employment, and as one means to this end a ministry of supply is recommended:

The demands of certain Government departments, like the office of works, of our Dominions and Crown colonies abroad, of our great municipalities at home are enormous in their totality. They represent a vast amount of goods and services which are not all needed with the same degree of urgency. A ministry of supply, properly informed by the ministry of labor as to the probable fluctuations of ordinary trade, could let loose in time of depression and withhold in time of prosperity demands for Government and municipal work. By such means trade would be steadied, bad trade being rendered less bad, and good trade less good. There would be less insecurity of employment for all.

INDUSTRIAL SELF-GOVERNMENT.¹

In the summer of 1914 the federated employers and organized employees in the building trades of London had a serious and costly disagreement. It had reached a point where a widespread lockout and strike, involving a number of other trades, seemed inevitable when the war broke out. Immediately terms were reached, with a reservation of some points to be settled at a more convenient time, and the trouble was adjusted. In considering these things, Mr. Malcolm Sparkes, a director and works manager in the London district, strove to think out some way by which the useless and wasteful antagonism between employer and employee might be overcome, and the "underlying unity and good will in the country's service" displayed by both might be made operative in times when the need for it was less dramatic and conspicuous, but hardly less urgent.

¹ A Memorandum on Self-government in Industry together with a Draft for a Builders' National Industrial Parliament, by Malcolm Sparkes. London, Harrison and Sons. [1918.] 28 pp.

The trouble lay, he felt, in the fact that the relations of employer and employee have been based on antagonism, coercion, and resistance:

Throughout the whole of the civilized world the story is the same. 'The parallel rise of trade-unions and employers' associations in mutual opposition has reached a point where it is generally recognized that the "normal condition of the world of industry is one of suppressed war."

Under such a system many a forward move on the part of labor towards improved conditions is opposed, almost as a matter of duty, by the employers' associations, and conversely many improvements in the direction of increased production and efficiency are countered by the restrictive regulations of the trade-unions; both sides acting, as they believe, in the interests of their members.

The two sides rarely meet except to make demands of one another or to compromise conflicting claims, and negotiations are inevitably carried on as between two hostile bodies. In this way great powers of leadership are diverted from constructive work into the sterile fields of largely useless controversy.

Mr. Sparkes believed it might be possible to substitute for this attitude a recognition of the fact that the common interests of employer and employee are wider and more fundamental than those which are admittedly opposed; and that upon these common interests it might be possible to raise the fabric of a new industrial order and to secure industrial peace. When in 1916 a new crisis in the London building trades seemed imminent, he proposed to the employees' unions the following plan:

A NATIONAL INDUSTRIAL PARLIAMENT FOR THE BUILDING INDUSTRY.

ARGUMENT.

The interests of employers and employed are in many respects opposed; but they have a common interest in promoting the efficiency and status of the service in which they are engaged and in advancing the well-being of its personnel.

PROPOSAL.

It is proposed that there should be set up, for the building industry, a national industrial parliament, representative of the trade-unions and the employers' associations, which would focus their combined energies upon the continuous and progressive improvement of the industry.

NAME.

The proposed body would be called the Builders' National Industrial Parliament of Great Britain and Ireland.

OBJECTS.

The objects of the parliament would be to promote the continuous and progressive improvement of the industry, to realize its organic unity as a great national service, and to advance the well-being and status of all connected with it.

PROGRAM.

The parliament would not concern itself with the adjustment of differences or the settlement of disputes. Means already exist for conducting such negotiations and settling such issues. The function of the parliament would be constructive, and nothing but constructive.

The agenda would be determined from time to time according to circumstances as they arose, and would naturally include such matters as the following:

1. *Regularization of wages.*—The provision of a graduated scale of minimum rates designed to maintain *real* wages as nearly as possible on a level throughout the country. Subsequent advances to be on a national basis.

2. *Prevention of unemployment.*—(a) To acquire a fuller participation in the control of the Board of Trade labor exchanges, and to supplement their work by improved organization special to the building trade for the decasualization of labor, and (b) to minimize the fluctuation of trade by intelligent anticipation and the augmentation of demand in slack periods, in cooperation with the national housing and town planning council and the local government board.

3. *Employment of partially disabled soldiers.*—To regulate the employment of partially disabled soldiers and to insure that the pensions granted by the nation shall not become the means of reducing the standard rate of wages.

4. *Technical training and research.*—To arrange for adequate technical training for the members of the industry, the improvement of processes, design and standards of workmanship, apprenticeship, research, and the regulation of the conditions of entry into the trade.

5. *Publicity.*—To issue authoritative information upon all matters whereon it is deemed desirable that leaders of public opinion, the press, and the general public should have exact information.

6. *Continuous and progressive improvement.*—To provide a clearing house for ideas, and to investigate, in conjunction with experts, every suggested line of improvement, including, for example, such questions as: Industrial control and status of labor; scientific management and increase of output; welfare methods; closer association between commercial and æsthetic requirements.

METHOD.

The parliament would set up committees of inquiry (with power to coopt experts) to investigate and report on each of the foregoing matters, and would deal with their recommendations as and when presented. All proposals before the parliament would be fully ventilated and discussed through the medium of joint district boards, works committees, the trade papers and the general press, in order that the opinion of the members of the building trade and of the general public thereon might be accurately gauged before final decisions were taken.

RESULT.

The result would be the progressive development of two codes:

(a) A compulsory code, probably involving legal sanction of agreed minimum standards; and

(b) A voluntary code, built up from the recommendations of the improvements committee for the voluntary, and perhaps experimental, adoption of progressive employers.

It would thus embody all proposals of which the principle was generally approved, but for which it was not yet possible or advisable to ask for compulsory powers. It would greatly stimulate the advance of public opinion on matters of industrial and social improvement.

LEGAL SANCTION FOR COMPULSORY CODE.

This might be accomplished by a special act of Parliament, giving power to the Board of Trade, or a ministry of industry, to ratify the decisions of the industrial parliament, and apply them to the whole of the industry, subject to adequate safeguards for the interests of consumers.

STATUS OF INDUSTRIAL PARLIAMENT.

There is at present no recognized body with which the Government can communicate in regard to matters concerning the building industry as a whole—employers and employed. The parliament would exactly meet this need, and would become the mouthpiece and executive of the industry as a whole.

SUGGESTED CONSTITUTION.

MEMBERSHIP.

Pending the establishment of more elaborate electoral machinery, it is suggested that 20 members should be appointed by the National Federation of Building Trades Employers of Great Britain and Ireland. and 20 members by the National Associated Building Trades Council.

It might be advisable that the representatives of the above organizations should be appointed in a manner to insure, on the one hand, the inclusion of actual operatives in addition to trade-union officials, and, on the other hand, of representatives of the managing staffs as well as the actual employers. Either side would be at liberty to change its representatives to suit its convenience.

CHAIRMAN.

To be chosen by ballot by the whole assembly. To be independent and advisory only, and to have no casting vote.

SECRETARY.

The routine work of the parliament would largely devolve upon the secretary, who should be an impartial salaried administrator of proved experience and capacity.

MEETINGS.

The parliament should meet at such times and intervals as would allow of members still devoting part of their time to their ordinary occupations.

REMUNERATION OF MEMBERS.

This would be restricted to the refund of expenses and compensation for loss of earnings. Financial provision for this would be arranged by each of the two organizations independently.

VOTING.

In order to secure a basis of absolute confidence, it is suggested that rules be drawn up to insure that the number of employers' representatives and operatives' representatives voting upon a measure shall always be equal.

SUGGESTED AUXILIARY ASSEMBLIES.

JOINT DISTRICT BOARDS.

These would be set up by local units of the two organizations for the discussion of the proposals of the industrial parliament and the furnishing of local facts and statistics as required. They would also perform a valuable service by preparing and forwarding suggestions for consideration.

WORKS COMMITTEES.

These would be small groups representing management and labor, set up for the same purpose in particular shops.

The parliament thus formed would differ from the industrial councils of the Whitley report¹ in that it would not touch upon industrial disputes, devoting itself wholly to constructive work. To prevent any possibility of forcing through a measure by the votes of one side only, it is provided that the chairman should not have a vote, and that the number of representatives of labor and management voting on any question must be equal. Under such an arrangement, where neither side could by any combination of circumstances override the other, the instinctive distrust of a proposition emanating from the other camp would tend to disappear. The more progressive employers would be likely to side with the same class among the men, "and thus the condition of two hostile camps of employers and employees would be abolished." With this disappearance of suspicion and hostility would come the ability to view any new measure with regard to its effect on the industry as a whole rather than with reference to the interests of a particular employer or trade-union group. As an instance of the advantages of this, the probable action of the parliament in regularizing wages is cited. The hours and wages prevailing in the building trades vary widely in different places throughout the Kingdom, the range being in some cases as much as 100 per cent. As a consequence, when employees make a demand for an increase of wages, no matter how much the employer may think it justified, he is almost forced to oppose it because of the competition of districts not subject to a proportional advance, and if the increase is secured it is at the cost of much friction if not of an actual strike. But if standardization could once be established and real wages made equal throughout the Kingdom, subsequent advances would be arranged upon a national basis, and an immense amount of friction would be avoided. As a second benefit, the mobility of labor would be much increased. Naturally a workman objects to moving into a district where the prevailing wage is lower than that to which he is accustomed, but this objection would disappear at once if real wages were equalized. It will be remembered that when, in the interests of war work, it became

¹ See note 1, p. 45.

desirable to transfer workers from one district to another this difference in wages was one of the outstanding difficulties, and organized labor consented to the plan only on condition that the transferred worker should receive the higher of the two rates concerned.

COMPULSORY AND VOLUNTARY CODES.

Although the parliament itself would have no powers of compulsion, it might adopt a code which the Government would be asked to make compulsory, since there are certain basic matters in regard to which standardization is so desirable that a few recalcitrants ought not to have the power to render the decision of the majority futile. The compulsory code "would merely regulate, for example, the minimum wage, the normal day, overtime conditions, traveling and lodging allowances, terms of notice on discharge, and any other matters which tend to standardize industrial practice, and upon which it would be possible to obtain an overwhelming measure of agreement."

The voluntary code would be far more comprehensive. One of the purposes of the parliament is to afford a clearing house for suggestions and schemes from the best thinkers of the world.

Some of these schemes would be rejected by the industrial parliament and some might be accepted for the voluntary code. But the fact that they were proposed for voluntary adoption only would transform the whole tone of the discussions. It would enable the parliament, the press, and public opinion at large to discuss important lines of advance entirely on their merits and without ulterior motives, and would tend gradually to create a general readiness to think out problems in terms of humanity as well as in terms of materialism.

The schemes adopted for the voluntary code would, it is hoped, be tried out by progressive employers, who would make public full details as to the experiment and its results. Often employers would be willing to accept for experiment schemes they would feel bound to reject if proposed under threat of coercion, and by such experiments they could advance the real interests of industry to a degree hardly possible through other means.

The progressive employer is the backbone of the scheme. If he is a mere figment of the imagination, then the scheme is largely valueless, but if he does exist (and we know he does), then there seems literally no limit to its possibilities. Conceptions of the team spirit in industry and of its organic unity in the public service would gradually cease to be utopian dreams, and would assume a definite and concrete shape. It is sometimes held that industrial progress must in the long run be limited by the standards of the public or social conscience of the nation at large—but it seems reasonable to hope that the operation of the voluntary code might promote the development of an active industrial conscience which would recognize no such restrictions, but would actually lead the way.

ADMINISTRATIVE ADVANTAGES OF SCHEME.

Apart from its effect upon industry the plan, if adopted generally, would relieve the difficulties arising from the overloading of the national Parliament. Even before the war the congestion of Parliament and the delays and difficulties arising therefrom were well known, and with the coming of peace these will be increased by the necessity of dealing with the problems of reconstruction—international, imperial, national, industrial, and social.

Every one of these matters will be urgent, yet every one of them will have to be dealt with by one cabinet and one parliament. Is it not inevitable that there will be serious delays and inefficiency and hurry in the effort to avoid delay? * * * It requires, indeed, no elaboration to show that we may be far nearer a real breakdown in our governmental machinery than anyone supposes.¹

Industrial legislation is peculiarly controversial, and after the war there is danger of a definite lining up of employers and employees, each intent upon wringing the greatest possible advantage out of the general overturn of previous conditions, a situation which will increase immensely the difficulty of getting through any labor measures. The plan of industrial parliaments, if at all generally adopted, would "withdraw from the House of Commons altogether an enormous mass of intricate and highly controversial industrial legislation and would set it free for the larger problems, national, imperial, and international."

ATTITUDE OF UNIONS.

How practicable is such a scheme? As yet there is no record of any similar plan having been tried, so that the appeal to experience is useless. But the scheme has appealed to a large number of the workers immediately concerned as practical and desirable. Early in 1916 it was offered by Mr. Sparkes to the London committee of carpenters and joiners, who strongly approved it and sent it forward to their national executive. It was fully discussed by the national council of these trades, and unanimously recommended to the National Associated Building Trades Council. By this body it was discussed, printed, and circulated among the 12 affiliated unions, and a conference held upon it in October at which it was adopted without a dissentient vote by 22 delegates, "representing the national executives of the principal trade-unions in the industry." It was then referred back to the national executives for final consideration, and in November the council reassembled and, the replies of the executives being favorable, unanimously voted to lay the scheme before the national federation of building trades employers, and ask for a preliminary conference upon it. No news has as yet been

¹ Round Table, December, 1916, quoted in memorandum under review.

received of the reception given it by this latter body, but it is significant and of good promise that the trade-unions, after the fullest consideration and discussion, decided that the scheme was entirely possible, and that they unanimously voted to indorse it as a method of reducing friction and securing cooperative effort for the common good of their industry.

AUSTRIAN EMPLOYERS' PREPARATIONS FOR PEACE TIME.

The *Correspondenzblatt der Gewerkschaften Deutschlands*¹ learns that Austrian employers are making extensive preparations for peace time, such preparations, however, aiming less at the development of industrial production on modern lines so as to meet increased international competition than at combating all efforts at emancipation on the part of the working classes. Short-sighted employers invariably regard the salvation of industry as attainable by keeping the working classes in subjection, and similarly the Austrian employers, ignoring the need of the State and the industries for a vigorous and therefore efficient working class, are directing all their efforts to frustrating the fulfillment of this requirement. For this purpose they have recently brought about a unification of their organizations calculated to prejudice the interests of their workmen. Three of the most influential employers' associations, viz, the "Industrial Club," the "Central Association of Austrian Manufacturers," and the "Austrian Manufacturers' Federation" have combined and formed the "Imperial Federation of Austrian Industries" with a view of maintaining the interests of the employers as a class. Of the three organizations named the first was the most influential, comprising exclusively the great industrial magnates. The second was in the main the association of moderate sized industrial concerns; in 1917 it had 2,600 members, employing about half a million hands.

The fact that three organizations so different in scope and aims have been amalgamated shows the importance which the employers attach to the formation of a central organization in order the better to guard their interests. While it is regrettable that this new move is directed against the working classes, it is still more regrettable that it is a proof of the neglect of the true interests of the industries, for the workmen and their trade-unions will certainly adopt defensive measures against this strengthening of the weapons of attack of their economic antagonists and will show the employers that the development of their organizations will not always be allowed to prejudice the working classes when once the latter draw the necessary lessons from this development.

¹ *Correspondenzblatt der Gewerkschaften Deutschlands*. Berlin, June 8, 1918.

PROVISION FOR THE DISABLED, AND VOCATIONAL EDUCATION.

ECONOMIC CONSEQUENCES OF PERMANENT DISABILITY ACCIDENTS IN CALIFORNIA.

The MONTHLY LABOR REVIEW for July, 1918, contains a report on the results of an investigation of the economic effects of permanent injuries suffered by industrial workers in the State of Massachusetts.¹ The present article presents the results of a similar study for California. In Massachusetts the facts were obtained through field investigations made by an agent of the bureau while the California study is based upon schedules filled out by the industrial accident commission of that State. The latter study also includes minor injuries, whereas in Massachusetts the investigation was limited to injuries resulting in the loss of a hand, arm, foot, or leg. Injuries causing permanent impairment of function were included. A comparison of the results of the two investigations shows striking similarities as regards length of total disability, reemployability, and relative severity of the several types of injuries.

The following table shows the average length of total disability for each type of injury and their distribution into total disability periods.

DISTRIBUTION OF INJURIES, BY PERIOD OF TOTAL DISABILITY.

Period of total disability (in months).	Number.						Per cent.					
	Hand or arm.	Foot or leg.	Total hand, arm, foot, or leg.	Eye.	Finger or thumb.	Two or more fingers.	Hand or arm.	Foot or leg.	Total hand, arm, foot, or leg.	Eye.	Finger or thumb.	Two or more fingers.
Under 5.....	16	8	24	30	149	73	30	23	27	67	88	75
5 and under 7...	5	3	8	4	14	10	9	9	9	9	8	10
7 and under 9...	5	2	7	5	4	5	9	6	8	11	2	5
9 and under 12...	7	2	9	1	3	5	13	6	10	2	2	5
12 and under 18...	6	5	11	4	2	3	11	15	13	9	1	2
18 and under 24...	6	7	13	1			11	21	15	2		
24 and over.....	9	7	16		1	1	17	21	18		1	1
Total.....	54	34	88	45	173	97	100	100	100	100	100	100
Average disability, in months	12.7	13.4	13.0	4.8	2.4	3.8						

The relative severity of the various accidents is indicated both by the average length of total disability and by their distribution into

¹ "What becomes of men crippled in industry?" in MONTHLY LABOR REVIEW for July, 1918, pp. 32-49.

disability period groups. The above figures are minima. Many of the injured men were still disabled or unemployed at the time of the investigation and the actual disability periods therefore are longer than the figures indicate. The average disability periods reported for California are shorter than those for Massachusetts, but this is due in part to the fact that most of the accidents studied occurred in 1916, while those in Massachusetts were equally distributed through the three-year period ending June 30, 1916.

The following table shows a more refined distribution of minor accidents, classified according to period of total disability:

DISTRIBUTION OF MINOR INJURIES, BY PERIOD OF TOTAL DISABILITY.

Period of total disability (in months).	Number.				Per cent.			
	One eye.	One thumb.	One finger.	Two or more fingers.	One eye.	One thumb.	One finger.	Two or more fingers.
Under 1.....		4	35	9		17	23	9
1 and under 2.....	9	4	64	24	20	17	43	25
2 and under 3.....	7	6	19	17	16	25	13	18
3 and under 5.....	14		18	23	31		12	24
5 and under 7.....	4	7	7	10	9	29	5	10
7 and under 9.....	5	1	3	5	11	4	2	5
9 and under 12.....	1		3	5	2		2	5
12 and over.....	5	2	1	4	11	8	1	4
Total.....	45	24	149	97	100	100	100	100
Average disability in months.....	4.8	2.4	2.1	3.8				

The effect of age upon the length of total disability for the several types of injuries is brought out in the following table:

AVERAGE LENGTH OF TOTAL DISABILITY FOR SPECIFIED INJURIES, CLASSIFIED BY AGE GROUPS.

Injury.	Number injured.	Number.		Average length of total disability in months.	
		Under 45 years.	45 years and over.	Under 45 years.	45 years and over.
Loss of—					
Hand or arm.....	50	35	15	9.4	19.2
Foot or leg.....	32	20	12	13.4	13.5
One eye.....	42	30	12	4.4	6.5
One thumb.....	22	14	8	4.1	4.6
One finger.....	147	115	32	2.0	2.7
Two or more fingers.....	93	69	24	3.4	5.1

It will be noted that in every case the average length of total disability for employees 45 years and over is greater than for those under 45 years.

The percentage of injured persons reemployed at the same occupation or by the same employer, classified by nature of injury, is shown in the following table:

PERCENTAGE OF INJURED PERSONS REEMPLOYED AT SAME OCCUPATION OR BY SAME EMPLOYER, CLASSIFIED BY NATURE OF INJURY.

Injury.	Per cent of injured persons reemployed at same occupation.	Per cent of injured persons returned to same employer.
Loss of—		
Hand or arm.....	30	40
Foot or leg.....	34	32
Total—hand, arm, foot, or leg.....	33	37
One eye.....	73	62
One thumb.....	68	56
One finger.....	69	58
Two or more fingers.....	60	57
Grand total.....	59	54

It will be noted that only about one-third of the persons sustaining the loss of a major extremity reenter the same occupation or return to the same employer, while in the case of minor injuries over one-half return to the same employer and two-thirds follow the same occupation. Of the several types of injuries the loss of an eye has the least effect upon the change of occupation or employer.

The number and per cent of injured men unemployed at the time of the inquiry is shown by the following table:

NUMBER AND PERCENTAGE OF INJURED MEN UNEMPLOYED AT TIME OF INJURY.

Injury.	Number injured.	Number unemployed.	Per cent unemployed.
Loss of—			
Hand or arm.....	54	16	30
Foot or leg.....	34	8	24
One eye.....	45	6	13
One thumb.....	24	3	12
One finger.....	149	3	2
Two or more fingers.....	104	5	5
Total.....	410	38	9

Opportunity for reemployment of workmen sustaining major disabilities increases with occupational skill. In the case of minor injuries this factor is of less importance. The following table gives the per cent of employees in skilled occupations before and after injury, classified by type of injury.

PERCENTAGE OF EMPLOYEES IN SKILLED OCCUPATIONS BEFORE AND AFTER INJURY, CLASSIFIED BY TYPE OF INJURY.

Type of injury.	Number of persons injured.	Per cent in skilled occupations.	
		Before injury.	After injury.
Loss of—			
Hand or arm.....	49	59	42
Foot or leg.....	31	65	48
One eye.....	44	73	76
One thumb.....	21	62	62
One finger.....	131	69	57
Two or more fingers.....	90	57	51
Total.....	366	64	60

The economic severity of certain types of injuries is accentuated by the fact that a preponderant number occur in industries in which the loss of the member is a practical bar to employment. A man with one leg, for example, is effectively excluded from most of the occupations in the transportation, construction, lumbering, and mining industries, yet it is in employments of this character that three-fourths of the foot and leg injuries occur. In California 91 per cent of the permanent foot and leg injuries occurred in nonmanufacturing industries, of which 60 per cent occurred in transportation and construction.

The distribution of the several types of injuries by industry is shown in more detail in the following table:

NUMBER AND PER CENT OF INJURED EMPLOYEES, CLASSIFIED BY INDUSTRY AND TYPE OF INJURY.

Type of injury.	Number.		Per cent.	
	Manufacturing.	Nonmanufacturing.	Manufacturing.	Nonmanufacturing.
Loss of—				
Hand or arm.....	22	31	42	58
Foot or leg.....	3	31	9	91
One eye.....	33	21	61	39
One thumb.....	14	10	58	42
One finger.....	92	58	61	39
Two or more fingers.....	60	39	61	39
Total.....	224	190	54	46

The effect of the injuries upon earning capacity is difficult of determination because of the constant increase in the wage level. Some idea of the reduced earning capacity is obtained by the following table, which gives the number and per cent of injured employees receiving less, more, and the same wage at present than was received at the time of injury.

COMPARISON OF PRESENT WAGES WITH THOSE RECEIVED AT TIME OF INJURY,
CLASSIFIED BY TYPE OF INJURY.

Type of injury.	Number at present receiving—				Per cent at present receiving—			
	Less.	Same.	More.	Total.	Less.	Same.	More.	Total.
Loss of—								
Hand or arm.....	13	9	7	29	45	31	24	100
Foot or leg.....	7	7	6	20	35	35	30	100
One eye.....	6	15	7	28	21	54	25	100
One thumb.....	2	9	6	17	12	53	35	100
One finger.....	18	34	70	122	15	28	57	100
Two or more fingers.....	13	18	35	66	20	27	53	100
Total.....	59	92	131	282	21	33	46	100

OPPORTUNITIES FOR THE EMPLOYMENT OF DISABLED MEN.

In connection with its placement work the Red Cross Institute for Crippled and Disabled Men has been conducting a series of surveys in various industries to determine opportunities for the employment of cripples, preliminary reports of which were issued in a recent bulletin.¹

The purpose of the surveys was fivefold: (1) To assemble information as to the desirability of establishing classes for the training of cripples in the various industries, (2) to obtain adequate knowledge of the possibilities of employing cripples in specific industries, (3) to obtain a mailing list, consisting of the names of firms able and willing to employ cripples, (4) to educate the employer to give the cripple a fair chance, not as an appeal to charity, but as a sound economic proposition, (5) to find definite jobs for the men who apply for work at the employment bureau of the institute.

Considerable publicity work was first done through the national and local trade associations. These associations were asked to send literature furnished by the institute to their members and to allow speakers to address their meetings. Editors of trade journals were asked to give space in their columns to this subject, and responded generously. Employers were easily interested in the employment of the war cripple and soon educated to consider the industrial cripple as well.

Twenty-three industries were taken up one at a time. Investigators were sent to all the largest factories in each industry in and near New York City. Cooperation of the smaller factories was solicited, either by letter or by visit. The work was done partly by paid workers and partly by carefully trained volunteers, and resulted in the securing of the names of 862 firms which are willing to cooperate. Since January 1, 1918, 542 factories have been inves-

¹ Opportunities for the Employment of Disabled Men. Red Cross Institute for Crippled and Disabled Men. Bulletin, July 24, 1918. Series 1. No. 16. New York, 311 Fourth Ave. 33 pp.

tigated. One thousand two hundred and three kinds of jobs have been found possible for leg cripples and 278 kinds of jobs for arm cripples. In this investigation careful attention was given to sanitary conditions, precautions for safety, etc., for future use in placement work.

These surveys resulted not only in special knowledge of jobs appropriate for cripples of varied types, but in locating actual jobs for industrial cripples who are being placed by the employment bureau of the institute.

The report describes in detail the processes involved in each industry investigated, the advantages and disadvantages of each for arm and leg cripples, the wages paid, the organization of the trade, and the general provisions for the safety of the workers. The following industries are included: The piano industry, the leather industry, the rubber industry, the paper-goods industry, the shoe industry, sheet-metal goods, the silk industry, cigar manufacture, drugs and chemicals, the candy industry, the celluloid industry, optical goods, and the motion-picture industry. The survey of the optical goods industry, reprinted below, is fairly representative of the manner in which these industries are treated in the report.

OPTICAL GOODS.

The optical-goods industry is a growing one and can be looked upon as being stable during and after the war. The trade of the small retail dealer has been considerably changed since the beginning of the war. Formerly the lenses were bought already ground, but now a great many of the retail dealers have found that they can not buy their lenses already ground and, therefore, have to do their own grinding.

The majority of the employers interviewed were very anxious to cooperate with the movement for employing cripples. They are all willing to take a few learners, but, of course, where the factory is small they are unable to take very many.

The president of the Wholesale Optical Manufacturers' Association of New York stated that he did not think that one-armed men could be used, but he thought there was a great opportunity for one-legged men. The editor of the Optical Journal and Review maintained that one-armed men with work arms could work at some of the processes in the trade and that one-legged men could be employed at almost all the processes. He said that a great many learners were taken. The editor of the Optical Record thought that one-armed men could be employed at edging and polishing lenses and one-legged men at most of the other processes. The majority of the employers seen thought that one-legged men could be employed in almost all processes. Only one or two employers thought that one-armed men could be employed and one employer said that he would take one-eyed men.

PROCESSES.

1. *Assembling*.—Assembling frames and putting in lenses. This is very skilled work and is mostly seated. Legless men could be employed at it.

2. *Blocking*.—This is highly skilled work and is almost all seated; it could be done by legless men. It consists of sticking the lens on a round metal disk with tar. It is rather difficult as it is necessary to have the lens fit on the middle of the disk.

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3. *Lens grinding.*—(a) *Surfacing.*—This is very skilled work and is almost all standing; it could be done by one-legged men. It is done by placing lens on a revolving metal disk. A pointed metal piece is placed on the blocked lens and grinds off the glass.

(b) *Edging.*—This is a simple process and is usually standing work; it could be done by one-legged men, possibly by a one-armed man. The lens is held between the fingers of both hands and the edge ground down on a revolving wheel. (In some of the small factories the edging and surfacing machines have a foot pedal, but in the larger places all the machines are worked by hand.)

(c) *Polishing.*—This is quite simple work. It is done standing. It could be done by a one-legged and possibly by a one-armed man. The lens is held between the fingers and placed on a revolving metal disk, which is covered with rouge and some sort of powder. These lenses are then sent to the final polisher. The final polisher consists of a number of metal disks upon which the lenses are placed. After being covered with rouge they are screwed into place and the machinery revolves and they are polished down to a fine surface. One man can tend the series of polishers and walks up and down turning hand levers.

4. *Lens cutting.*—This is highly skilled work, is usually seated, and could be done by legless men. It requires a highly trained eye. The lenses are measured according to geometrical charts and are then marked. They are then placed in a small cutting machine, which has to be set very carefully. Only a few men are employed at this work in each factory.

5. *Surface grinding for instruments.*—This work is done in a few factories. It is skilled work and is seated and it could, therefore, be done by legless men. It is almost similar to the process of surfacing but it takes longer and requires more patience.

6. *Sorting.*—In large factories they make first, second, and third grade lenses. These are sorted by testing them with an instrument. It is very unskilled work and it could be done seated. It is sometimes done by girls.

7. *Wrapping.*—In large factories there is a good deal of wrapping glasses in paper, etc.

POSSIBILITIES FOR ONE-LEGGED AND FOR ONE-ARMED MEN.

Process.	Weekly wage for one-legged men.		Process.	Weekly wage for one-armed men.	
	Mini-mum.	Maxi-mum.		Mini-mum.	Maxi-mum.
Assembling.....	\$18	\$30	Lens edging.....	\$15	-----
Blocking.....	18	25	Lens polishing.....	15	-----
Lens surfacing.....	18	30	Lens sorting.....	12	-----
Lens edging.....	15	30			
Lens polishing.....	15	30			
Lens cutting.....	18	35			
Surface grinding for instruments.....	18	35			
Sorting lenses.....	12	-----			

WORKING CONDITIONS.

1. *Wages.*—Wages for learners range from \$10 to \$12 a week. Most of the employers maintain that, in six months, men ought to be able to earn from \$15 to \$20. Very skilled workers earn from \$25 to \$35.

2. *Physical conditions.*—Fair.

3. *Nationalities.*—On account of the shortage of labor, they are willing to take men of any nationality. Most of the workmen seem to be of a good type.

ADVANTAGES FOR CRIPPLES.

1. It is a nonseasonal trade.
2. The work is light and could be done by one-legged men, some of it by one-armed men.
3. The wages are high.
4. In general, the conditions, in regard to light, ventilation, etc., are fair.
5. While a great deal of the work is skilled, most of the employers agree that a man could learn a good deal in six months.
6. Learners are taken in almost all factories.

DISADVANTAGES FOR CRIPPLES.

1. The principal drawback to placing cripples in this trade is that there are few large factories, especially in New York City. Of course, the smaller ones can not take very many learners at a time.
2. A good deal of the work is standing but it requires very little strength. Opinions differ as to the desirability of standing work for men with leg amputations. A one-legged man who is one of the investigators for the institute claims that he is perfectly able to stand all day long, whereas one of the physicians of the staff maintains that a cripple with a recent leg amputation can not do standing work. However, in some of the smaller factories, they have high stools for the men, and it would seem perfectly possible for the larger factories to allow the men to sit at a good deal of the work.

LOANS AUTHORIZED TO FRENCH WAR PENSIONERS AS AID IN ESTABLISHING HOMES.¹

By a recent law of France (Apr. 9, 1918), real estate mortgage associations and agricultural loan associations are authorized to make loans under the laws of April 10, 1908, and March 19, 1910, to pensioners for certain purposes, and subject to certain provisions for securing the repayment of the loans.

Loans are authorized to former soldiers and marines in receipt of an invalidity pension paid by the State for injuries received or infirmities contracted in the course of the present war; to widows in receipt of a pension or annuity paid by the State or by the French marine provident fund because of the death of their husbands through injuries received or sickness contracted since August 2, 1914; to dependents having a right to annuities or pensions paid by the State or French marine provident fund because of injuries to persons resulting from the war, provided they present proofs that they are eligible to insurance in the laborers' and peasants' retirement fund under the law of April 5, 1910, and that they have complied with its provisions.

Individual loans secured by mortgages are authorized for the purpose of acquiring, managing, transforming, and reconstructing small rural properties, without regard to the area, of which the value, not including expense and insurance costs, does not exceed 10,000 francs

¹ *Revue Interalliée pour l'étude des questions intéressant les Mutilés de la Guerre.* Vol. I, Nos. 1 and 2.

(\$1,930). Repayment of the loan may extend over a period of 25 years, unless the age of the borrower at the date the last installment becomes due shall be above 60 years.

Loans made in accordance with this law shall bear interest at 2 per cent ¹ per annum.

At the time the loan is made the borrower must contract with the national insurance fund for the payment of the annuities which may remain unpaid in the event of the death of the borrower. This insurance is effected by a single premium which, together with the costs of the negotiation of the loan, is added to the sum borrowed.

The certificate as to healthfulness, required under the law of April 10, 1908, for cheap dwelling houses located on small areas of land, shall, in addition to being signed by the rural inspector, be signed by an inspector appointed for this purpose from among the members of agricultural syndicates, productive agricultural cooperative societies, mutual agricultural credit associations, or committees of the department for cripples.

Borrowers are exempt from showing that they are in possession of one-fiftieth, at least,² of the purchase price of the property to be improved.

Every contract shall contain the provision that on default of the payment of an installment the loaning society may attach one-fifth of the annuity or pension unpaid, provided that fraction does not decrease such pension by more than one-half or to a sum under 360 francs (\$69.48). In case the borrower demurs to such attachment, a justice of the peace shall definitely rule upon the question.

For the exclusive purpose of making loans authorized by this law, loaning societies may receive special advances without interest, without being limited to double the amount of subscribed capital. Such advances shall be based on the amount of general subsidies for agricultural credit for long-term loans authorized by the law of March 19, 1910, and be repayable in annual installments during the period of 26 years. Advances are to be made to agricultural credit associations by the minister of agriculture and to real-estate mortgage associations by the minister of labor and social welfare, when recommended by a special commission.

For each child born to the borrower after the loan is made the State will annually place to the credit of the borrower one-half of 1 per cent of original loan. This grant will be credited on the required annual payment.

Rural property acquired, managed, transformed, or reconstructed under the provisions of this law may be declared a homestead. But

¹ This rate was changed in the Chamber of Deputies to 1 per cent.

² See laws of Apr. 12, 1906, Apr. 10, 1908, and Feb. 11, 1904.

this shall not abridge the rights of the loaning society as to registering the mortgage against such property or in measures taken for its foreclosure (see laws of July 12, 1909, and Mar. 19, 1910). This provision applies also to unmarried persons having no children, on condition that marriage shall be contracted within three years. If after that period the borrower is still single any interested person may cause the homestead declaration to be set aside.

In respect to long-term loans in favor of mobilized persons granted by district agricultural credit societies as provided for by law of March 19, 1910, the provision limiting advances to double the capital of the fund is not applicable, but the total advances shall not exceed four times such capital.

The law becomes effective three months after its publication.

VOCATIONAL REEDUCATION AND EMPLOYMENT OF DISABLED SOLDIERS IN ITALY.¹

THE NATIONAL COMMISSION FOR THE PROTECTION AND ASSISTANCE OF MEN DISABLED IN THE WAR.

The Italian system of care for disabled soldiers is an outgrowth of private interest in relief work connected with the war. Civil relief committees have cooperated with the governmental health service, the Red Cross, and the Order of the Knights of the Cross of Malta in caring for the wounded and maimed. The work has always been more or less connected with the Government; but governmental organization and control of the work did not begin until the passage of the law of March 25, 1917, No. 481 (published in the *Gazzetta Ufficiale* of Apr. 2, 1917).

Upon this law is based not only the organization of vocational reeducation in Italy, but also the whole complex work of the aftercare and social assistance of every disabled soldier or sailor, whether he be incapacitated by wounds or through illness.

The execution of this great undertaking has been intrusted by law to a new organization, known as the National Commission for the Protection and Assistance of the Men Disabled in the War (*Opera Nazionale per la Protezione ed Assistenza degli Invalidi di Guerra*).

¹ This article has been compiled from the following sources: The Interallied Conference on the Aftercare of Disabled Men. Second annual meeting, London, May 20 to 25, 1918. Reports presented to the conference. London, 1918. Two papers on "Technical Reeducation in Italy," by Prof. Giovanni Chevalley (pp. 139-149) and Prof. Ettore Levi (pp. 150-156); "La rééducation Agricole des invalides de guerre en Italie," by Dr. Mario Gusmitta (pp. 183-204); "La systemation des avengles de guerre en rapport aux criteriums suivis pour leur rééducation," by Dr. Lavinia Mondolfo (pp. 283-311).

Federazione Nazionale dei Comitati di Assistenza ai Militari Ciechi, Storpi Mutilati. L'opera svolta in Italia 1915-1918. Rome, 1918. Illustrated. 326 pp.

Publications of the Red Cross Institute for Crippled and Disabled Men. Provision for war cripples in Italy, by Ruth Underhill. Series 1, No. 12. New York, May 31, 1918. 18 pp.

The national commission with headquarters in Rome is administered by a council composed of 19 members—2 deputies and 2 senators elected by the respective houses of Parliament, and 15 members appointed by the Crown, representing the different Government departments, committees for the care of war invalids, and public relief and social insurance institutes. An executive committee is elected by the commission comprising 7 members and the president or vice president of the commission.

The task of the national commission has been greatly facilitated by the work accomplished during the first two years of the war by municipal and regional committees, whose activities have been since October, 1916, coordinated and directed by a special inspector, Prof. Enrico Burci, of Florence, attached to the Ministry of War, and appointed by the Prime Minister. The essential duties of the special inspector have been the reorganization of the military institutes for the reception of disabled men and their coordination with those already established by the civil authorities. Only by such reorganization and coordination could the uniform and continuous treatment, both material and moral, of the disabled be secured.

The amalgamation of the existing civil and military organizations has been brought about of necessity, by the experience of the first year of war. For this experience indubitably showed that reeducation, as a general measure, was doomed to failure if it were not preceded by an adequate moral and physical preparation of the disabled man from the initial stages of his incapacity, and followed by a wise and kindly supervision during the critical period of his return to normal surroundings. Accordingly vocational reeducation for disabled soldiers and sailors in Italy is distinguished by three distinct features: (1) Propaganda with regard to vocational reeducation, and the preparation and persuading of disabled men to go through with it; (2) actual vocational reeducation (technical training centers and institutions); and (3) assistance given to disabled men on completion of their technical training.

PREREEDUCATION OF THE DISABLED IN CONNECTION WITH THEIR HOSPITAL TREATMENT.

Ideally, the prereeducation of the disabled man—that is to say, the moral preparation of the patient—should be initiated at the very moment when he first realizes that he will remain hampered for life by his physical disabilities. In order to realize such an ideal, it has been attempted in Italy to concentrate without delay all the seriously disabled in two surgical first receiving centers, where they may live in an atmosphere favorable to their preparation for an active future. For this reason every seriously disabled man, from whatever sector

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of the extended Italian front he may come, is immediately conveyed to Mantua for the northern front, and Bari for the eastern front, where he is insured not only the most efficient medical and surgical treatment, but also the most intelligent and loving moral preparation.

In order that such preparation should be carried out in the most ideal way from the very start—in the small field hospitals and in the hospital trains—the national commission has undertaken the publication and distribution of a pamphlet of propaganda. This pamphlet, published in the simplest form, is designed to popularize the law relating to the disabled, explaining to the patient and to all who may attend him—doctors, nurses, chaplains, etc.—what are the rights to which he is entitled, and all that these imply—medical and surgical attendance, free provision of artificial limbs, maintenance for six months in a school of reeducation, the laws relating to pensions and legal medical attendance, social relief, and the securing of employment for discharged disabled men in the public service and in private enterprises. The pamphlet, abundantly illustrated, and distributed by the thousand throughout the whole country by means of the civil authorities, doctors, parish priests, etc., will also serve the purpose of explaining these advantages to many discharged disabled soldiers who, during the first period of insufficient organization, did not profit by rights and privileges which had not been made adequately clear to them.

From the first receiving hospitals in Mantua and Bari the patients are distributed, according to their district of residence, among the first concentration hospitals of Turin, Milan, Genoa, Bologna, Florence, Rome, and Naples, thus being brought without delay into the neighborhood of their families and of their normal environment. In these hospitals, chosen for their healthful and agreeable surroundings, the surgical treatment of the patient is completed, and, simultaneously, the moral preparation, already initiated, is carried out by the personnel of the local school of reeducation. As soon as the patient is able to sit up in bed, he is encouraged to attempt light occupations—beadwork, cardboard work, toy making, etc. Thus his passive mentality is transformed into an active mentality, and he begins to feel the hope of a renewed possibility of work and to appreciate its necessity.

The wounds of the patient being nearly healed, he passes to the local concentration hospital of the second grade, where his physical and orthopedic treatment is completed. The stumps of the mutilated limbs are then put into a condition favorable for the adaptation of artificial members, and crippled limbs are restored as far as possible to their functions. In this period the patient is no longer confined to bed, and his general reeducation may be extended; he is accord-

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ingly encouraged to attend the schools which exist throughout these districts. In such schools illiterates, unfortunately numerous in Italy, are taught to read and to write; or those having already mastered the rudiments of education may bring their knowledge to some degree of perfection. The patients have also at their disposal small workshops, intended, for the most part, for the light manual work suitable for the great mass of those disabled who come from agricultural districts—the auxiliary trades of agriculture, such as wickerwork and basket making, coopering, clog making, etc. By these means, even those patients who persistently refuse to spend six months in the schools of reeducation proper are enabled to return to their homes with some notion of the best way to exercise their normal occupations. During this period the patients are furnished with temporary artificial limbs.

Then follows the third and last period of treatment. The physical treatment of the patient completed, after a month's leave he passes on to the school of reeducation already existing in each one of the above-mentioned cities.

SYSTEM OF VOCATIONAL REEDUCATION.

Reeducation is, unfortunately, not compulsory in Italy; but the law on the care of disabled soldiers has been framed with such foresight as to affect the greater number of those who have need of it, making compulsory for every indigent disabled man a sojourn of at least 15 days in the schools of reeducation. He is, accordingly, made to realize the opportunities open to him and does not risk refusing such benefits owing to an incomplete appreciation of them.

Only in the school of reeducation itself do the disabled receive their permanent artificial limbs. These are supplied by the special laboratory attached to each school, under the direction of an orthopedic surgeon. Many schools also furnish gratuitously the necessary implements for the exercise of the trades and handicrafts taught there. This system has the object of centralizing and retaining every patient for the longest time possible in the schools of reeducation.

These schools were established in Italy through local initiative, and for this reason neither their administration nor their programs of instruction have been perfected or coordinated. They are now, however, under the control of the national commission, which will strengthen and reorganize them according to a general and uniform design. Formerly these schools were entirely supported by private contributions. In view, however, of the enormous expenditure entailed by the adequate development of these institutions the Government has granted the local committees for the assistance of disabled soldiers and sailors a subsidy for every disabled man kept in the various training institutions, amounting to 3.5 lire (67.6 cents) per

day for indoor patients and 2 lire (38.6 cents) per day for outdoor patients, for a stated period of not more than six months. In many cases, however, this period is much too short for a complete training, and, under those circumstances, the Italian local committees themselves defray the extra expense out of their own funds for so long as the disabled man is obliged to remain in the institution. For instance in the Turin schools the average stay is about one year. The committees generally allow a small daily amount of pocket money to their pupils—about 1 lire (19.3 cents) per day. Part of this amount is put into a savings bank and is handed to the disabled man when he finally leaves the institution.

The trades that are generally taught in the Italian schools of reeducation are shoemaking, tailoring, saddlery, carpentering, general mechanics, cabinetmaking, bookbinding, manufacture of wooden shoes, etc.; furthermore, all trades indigenous to agricultural districts, as, for instance, basket making, and the wheelwright and cooper trades, etc. In addition to these there are commercial courses which comprise bookkeeping, typewriting, drawing, telegraphy, etc. All disabled men who are learning a manual trade are also compelled to attend the public school classes during one or two hours daily.

As in other countries, the selection of trades for the disabled men has not always been wise; the result of much experience, however, has enabled the national commission to lay down the following rules:

(1) Whenever it is possible, the disabled men ought to be retained in the trade followed by them in prewar days, or in a similar one.

(2) The above rule ought to be applied especially to agricultural laborers, who constitute in Italy about 85 per cent of the total number of disabled men.

(3) In view of the very large number of disabled men who aim at obtaining small Government appointments, the necessity has been recognized of discountenancing their applications, and by so doing sparing them many future disappointments. It has also been recognized that it is infinitely preferable to give the disabled men a thorough training in appropriate trades and callings, which besides being of a more profitable and independent nature, are also not quite so much sought after.

(4) The authorities have also come to realize the necessity of discouraging crowding into the cities which has increased to large proportions. This has been effected by persuading the disabled men to return to their native towns or villages wherever possible.

Through the efforts that have lately been made by the league of the assistance committees, and by individual committees as well, agricultural laborers have been induced to return to the land. This is a step, however, to be taken only after the disabled men have learned

the use of labor appliances suitable to each particular case, and on their completing a course wherein they have been taught the rudiments of modern agriculture. In this way, and in spite of their physical disability, they may obtain from the land a much better yield than they would have done had they persisted in following the old methods.

The national commission is convinced that the resident system of training is greatly superior to the nonresident, and has, therefore, put the former into more extensive practice, yet without such rigid enforcement as to prevent men availing themselves of every practical local training scheme carried out upon a different basis. The commission is equally convinced that the larger institutions present material advantages over the smaller. Up to the present time, however, the smaller institutions have perforce been more prevalent. Since during the early days of private initiative, the local bodies, though zealous, were little controlled and lacking in means, the national commission, now reviewing the entire situation with impartial judgment, intends to give the maximum assistance to the more flourishing institutions, and inexorably to condemn the weaker and less successful.

SUPERVISION AND CONTROL.

The work of supervision and control is carried out by continuous inspections, intrusted to committees chosen from among the members of the commission and composed for the most part of a specialist in reeducation, an administrative official, and a disabled officer or soldier.

In this connection it is worthy of note that there exists in Italy an association of disabled soldiers, numbering already some 20,000 members, and acting in strict accord with the military authorities and with the national commission. Representatives of this society are members of the council of the national commission and of every local committee. They have also the right to control the methods of reeducation prevailing in the various centers.

The national commission exercises its complex work of control through the medium of the local committees, which, during the first period of the war spontaneously undertook the establishment of schools of reeducation. The local distribution of these institutions is, however, unfortunate, being numerous in the north and scarce in the south. To obviate this grave inconvenience the national commission is undertaking, at its own expense, to found a large institution at Bari, and another in Sardinia, and is intending also greatly to extend the already existing institutions at Naples. In 33 Provinces of Italy there exist at present no schools of reeducation, and it is not

desirable that they should exist, for, as has been said above, the aim of the national commission tends rather toward the perfecting of the larger local institutions. It is to be desired, however, that in these Provinces the disabled who have rejected their first opportunity for reeducation should, if possible, be drawn back under its influence, and by every other means be helped and protected.

To this end the national commission has created in the chief towns of these 33 Provinces official committees, composed each of seven members, one of whom is himself disabled. These committees exercise in the outlying districts the fundamental functions of the national commission, and have also the duty of choosing the communal delegates who extend their beneficent propaganda to every remote part of the country.

The national commission is actively engaged in the preparation of a new and complete census of the disabled men who have already returned to their homes. The commission will thus be enabled to supply, with the least possible delay, what has been lacking in the past. For only by means of an exact report of the physical, reeducative, and social circumstances of each individual is it possible to bring under fresh supervision those disabled men whose condition is still capable of improvement, to complete and perfect the application of artificial limbs, to attract to the schools of reeducation those who have not already profited by them, and to secure employment for those who have or have not been reeducated.

REEDUCATION OF THE BLIND AND DEAF.

The blind are quickly removed from the ophthalmic wards in the field hospitals and distributed amongst the three hospitals for concentration at Milan, Florence, and Rome. In these hospitals they receive the special treatment their cases call for, and are supplied with such ocular prostheses as are required, at the expense of the military administration. From these establishments the totally blind are transferred to one of the five institutions for the care and training of the blind at Milan, Florence, Rome, Naples, and Catania, that have been recognized and approved by the Ministry of War.

Following the principle adopted for the assistance of disabled men, everything is done to aid them morally and mentally while the surgical treatment is being carried on.

The point of view of the Italian system of reeducating the soldiers and sailors who have lost their sight during the war is not that these blind men are normal men forced to live in darkness, but that their reeducation must be effected on other than the traditional lines of the education of those born blind. For the soldier who has become blind still sees in his memory. He remembers form, weight, distance, sur-

face, etc., of all objects. Taking into account this potentiality of the blind soldier, the number of occupations for which he may be trained successfully is vastly greater than that for which, hitherto, persons born blind have been educated. On the other hand, there is to be considered his moral depression and his state of discouragement which weakens his will power and causes lack of confidence, and therefore it does not seem opportune to influence him to choose at the beginning of his training a trade difficult to learn.

For this reason the Italian schools of reeducation for the blind offer to all their pupils, at least during the first weeks of their stay at the school, a choice among a number of occupations easy to learn, and thus the most intelligent among them as well as the most backward achieve almost immediately the consolation of a first victory over the dark discouragement that dominates them. Among the more easy trades taught to the blind men are the following: Chair caning; the making of brushes, brooms, nets for various purposes; matting, etc. All these trades offer useful distraction to the men and the possibility of small earnings at easy work when they return to their rural or urban homes. The less intelligent and the lazy content themselves with mastering one of these trades, but the more active and intelligent tire of this crude and elementary work after a few days and try to learn a more difficult trade, such as saddlery, shoe-making, bookbinding, basket making, woodworking, etc. Some of the men learn even two or more trades.

The choice of a trade, although in part accomplished under the efficient suggestion of the director of the school, is, after a period of trying out of the individual aptitudes, left to the free will of the blind soldiers. These are not always willing to be reeducated for the occupation exercised by them before the war. The men consenting to reeducation for their former occupation have to go through long days of disappointment spared to those learning a new trade. It has been observed that the effort to accomplish in darkness the same operations which, with the aid of the eye and owing to long practice, had become rapid and automatic and did not require fatiguing attention, annoys and irritates the blind soldier and discourages him to continue his reeducation. To make the blind soldier overcome the impatience and dejection of the first few days or weeks and to cause the love for his former occupation again to take root in him is a result aimed at by all the Italian schools for the reeducation of the blind. Special instruments which make the blind men's work sure and precise and permit relatively rapid operation make possible their placement in a considerable number of trades. Some of these instruments have been invented by the blind soldiers themselves during their course of training and others by instructors of the various

schools. To be of value, the instruments in question must be easy to handle, be of simple construction, and not too cumbersome so that when the reeducated blind soldier returns to his home he can easily carry the instrument and repair it or replace it when it gets out of order or deteriorates.

For former agricultural laborers who have become blind in the war it is in every respect most suitable that they return to their former occupation. Since the majority of the blind soldiers are former agricultural laborers, special sections for agriculturists have been established in the schools for the blind of Milan, Florence, and Rome. In addition to agricultural labor these men are also taught basket, broom, brush, and net making, the making of matting, and other similar trades, for which, when at their homes, they can easily obtain raw materials and which they may exercise when not engaged in agricultural labor.

The occupations chosen by the more intelligent blind soldiers in the Italian schools of reeducation are nearly the same as those chosen by the intelligent blind in other belligerent countries. Massage, the study of languages, piano tuning, music, commercial studies, etc. All of the more intelligent are being taught to read and write "Braille."

The reeducation of soldiers who have become deaf in the war consists chiefly in their instruction in lip reading.

REEDUCATION OF SOLDIERS DISABLED THROUGH ILLNESS.

Lastly, the national commission has also the task of extending its protection and assistance to all service men incapacitated through illness. This is a work of immense proportions and of essentially medical character, which, however, must not be separated from reeducation. For no patient, until he be restored to favorable physical condition, is capable either of reeducation or of social usefulness. Special study is given by the commission, with the close cooperation of the military and civil sanitary authorities, to the grave problem of the tubercular cases. It is intended that tubercular patients shall be taught, in special tuberculosis sanatoria, that régime of life which they must follow if they hope to be cured. While actively forwarding such antitubercular preeducation, the commission expects to have among such patients a steadily increasing percentage who may become candidates for a future technical reeducation under a special supervision which must never lose sight of the pathological origin of their disability.

AFTERCARE.

A further task of the national commission is the aftercare that follows the technical training and that devotes itself to sustaining

and helping the disabled men on their return to the life of civilians. This question is most important and is closely connected with the technical training, inasmuch that without the aftercare all the advantages of the training would be lost.

On leaving the training school the disabled man nearly always has a small capital with which to get the necessities of life. This is the result of those deposits made during his training in a savings bank account by his committee and represents part of his earnings during the said training. To this amount have been added from time to time the rewards for training given by the minister of the interior or by the committees themselves. The disabled man is generally presented with the surgical appliances he may need and with tools or books required for his new trade.

As a rule the disabled men find employment with comparative ease on leaving the training centers and nearly always obtain a much higher wage than they earned in peace time. Each local committee takes a special pride and interest in finding work for the discharged disabled men, and many have created special employment offices. Nor are the men either forgotten or neglected once they have found work to do, each training center taking special care and pride in watching over its old pupils, especially at the start. For those who have no families to return to and yet need a certain amount of care the national commission pays for board in private families, which must render a regular account to the commission. In this respect it would be well to mention the activities of the Sicilian Institute for Disabled Men with regard to the aftercare of its former pupils who have obtained work in the factories of Palermo. It has established a disabled soldiers' home, which has proved a real boon to disabled men who, after leaving the training center, have often found great difficulty in obtaining board and lodging. To this end the Sicilian Institute has rented and furnished suitable apartments and lets them out to its former pupils at a nominal rent. All the management of this home with regard to board and all other details is left entirely to its inmates. This undertaking is giving the best of results and should soon find imitators.

STATE AND LEGISLATIVE PROVISIONS FOR THE PLACING OF DISABLED SOLDIERS.

The securing of positions for crippled soldiers is only beginning to be systematized in Italy. The law of March 25, 1917, creating the National Commission for the Protection and Assistance of Men Disabled in the War, intrusts the finding of employment to the local committees of this commission. The early reports of the committees of assistance always mentioned placement as one of the functions of the committee but there were no actual arrangements for carrying it

out. When the schools of reeducation were first established the only trades taught were the simple ones of tailor, shoemaker, etc., which a peasant could carry on in his own home. Men were sent back to their home villages, sometimes supplied with tools by the committees, and expected to set up in business for themselves. With the duration of the War there has been more discussion of this subject and it is realized that the problem of maintaining the stability of industry is a very serious one, which the schools of reeducation should study scientifically.

There is no set rule, as there is in Germany, that a man should be reeducated to his old trade or an allied one. If this were actually carried out in Italy almost all the cripples would be educated as farmers. The statement made in the law creating the national commission, a statement expressive of theory rather than practice, is: "Men should be educated preferably to their old occupation, agricultural or industrial, or to a new one suited to their tastes and to their social and economic condition and to the labor conditions of the locality where they reside."

Italian critics of the work have pointed out that this ideal has so far not been carried out and that schools have taught the two or three trades easiest to install without regard to the demand for them or their suitability to the cripples' tastes.

The national federation of the local committees of assistance had almost from the first an employment office whose function was to assist the committees in placing their discharged pupils. This office made inquiry among large firms in the country as to their willingness and ability to employ cripples and was able to publish in its monthly bulletin the names of several with the positions which they can offer. The employment office of the national federation keeps up a continual campaign of publicity to interest public officers and private employers in the subject of employment of disabled soldiers.

In addition to this almost all the local committees have developed employment bureaus. Those at Florence and Turin are particularly active. The employment committee at Florence, composed of physicians and employment experts, interviews all men before they leave the hospital and makes out a card containing the necessary social information, after which it makes an effort to get them really appropriate work. The Turin school has within its building an employment office for crippled soldiers and also uses a carefully worked out blank in taking applications.

There have also been organized in many of the Italian Provinces volunteer committees for industrial mobilization (*Comitati di mobilitazione industriale*) under a central national committee. This committee makes it its particular business to look up the firms which

will employ cripples and publishes the results. The local committee for Lombardy publishes a tabularized statement every month in the monthly bulletin of the federation and the national committee also has a report.

The agency to which all others look for help in the matter of placement is, of course, the State. State aid in this respect has been regulated by the law of March 25, 1917. The respective provisions of the law have for substance the following principles: Retention in the army, reinstatement and admission into public offices and works, preference in competitions for civil-service positions, reemployment with private concerns.

According to the above law, soldiers, who in accordance with the regulations in force have been disabled, may, when their disablement allows, remain in the army if the military authorities consent. The law makes a distinction between soldiers who, in spite of their disablement, are able to continue in active service and those who are able to undertake only sedentary work. The former may, almost without exclusion as to rank and in an unlimited number, after the suspension or repeal of every provision for pensioning or permanent discharge, be taken back into the army, passing, however, into the reserves. For both these categories, however, their respective rights to advancement hold good, and both, during the whole of the period they are serving, will have the right to receive, over and above the privileged pension, the salary due to members of the army of equal rank of the same corps in permanent active service. Both of them, in addition, although being able to remain in the service right up to the age limit generally prescribed, may at any time ask to be pensioned, and they will in any case have the right to add the privileged pension already obtained to the pension due them for the period of service subsequently given. Special detailed rules, of course, regulate the manner of establishing the physical fitness of the applicant as well as the terms of the request to be reinstated into the army.

Italy had, perhaps, more difficulty than other countries in combating the usual conviction of the war cripple that he was entitled to a Government position. She was situated something like the United States, having had a popular war at about the same time (1861), after which the principle of liberal treatment and Government jobs for pensioners became well established. Many of the heroes of the War of the Risorgimento (recovery of Italian independence) were supplied with sinecure posts which they were unfitted to fill, and the general presupposition at the beginning of the present War was that all veterans must be treated in the same way. The Government, however, made it plain at the beginning of the present war that such a policy would not be adopted, and discouraged all disabled

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soldiers who did not possess proper qualifications from applying for civil-service positions.

The law of March 25, 1917, provided, however, that disabled soldiers shall be reinstated in positions in public and Government offices held by them at the time of their being called up for this war, provided they have reacquired the capacity to perform useful service. The appointment of disabled soldiers formerly not in the Government service to situations without competitive examination has been limited to fixed situations of a lower category. In regulations published in August, 1917, in pursuance of the above law, there were inserted tables giving, for the various ministries, the different grades of employment and the number of situations in each grade to which disabled soldiers formerly not in the Government service might have access. The procedure for the admission is very simple. The applicants simply have to present their petition to the national commission, furnishing such documents as prove that they possess the qualifications prescribed for each of the situations in the respective administrations; the latter then chooses from the various applicants those whom it considers most adapted by their qualifications for vacancies.

Another privilege granted by the law is that on the basis of which being a disabled soldier constitutes a right to precedence, in the case of equality of qualifications, in the competition for admission to public employments. And as a last privilege single administrative departments have been authorized to establish rules and regulations for the admission, by competition, of disabled men to employments not included in the tables of which mention is made above, provided they are not of the higher grade or connected with accounting departments, on special conditions, not excluding the eventual reservation of a part of these situations exclusively to disabled men.

Privileges of a general character, in connection with the readmission and admission into public offices and works, have also been granted both by law and by rules and regulations. Among these the following are worthy of mention: The authority granted to the public administrative departments to deviate, when it is considered opportune in the interest of the disabled men, from the age limits established by their respective regulations for the admission to competitive examinations; the right to add the privileged pension to their salary during service and to the civil pension when pensioned off; and the possibility of obtaining bonds for those employees for whom they might be required, by allotments from the war pension or from corresponding temporary allowances, in such measure, however, as not to exceed one-third of the sum annually paid under this heading.

With regard to the treatment to be received by disabled soldiers in connection with their reinstatement or admission into employment

with industrial concerns and commercial offices, the legislator was confronted with much greater difficulties, as it was a question of invading private territory. As is known, this question had been discussed at length at the interallied congress at Paris, which decided that it should be left to the legislators in the various countries to determine whether private firms could be forced to employ disabled soldiers, limiting itself to expressing the wish that a moral obligation might be felt on the part of private firms to employ disabled men in a number proportionate to the importance of the respective firms. The question was solved in different ways in the different countries. In some, as in France, it was established that industrial and commercial firms should not be able to obtain a concession, monopoly, or subsidy from the State, or from public institutions unless they reserved a certain number of situations for disabled men. This necessitates complex regulations, with detailed instructions and tables to establish according to the capacity, infirmity, dependents, etc., the right to the different situations.

In view of these complications and difficulties the Italian legislature did not think fit to study the problem specially, and considered it sufficient to extend to the disabled men the regulations which by a decree of May, 1916, had been adopted in favor of the employees of private firms called to the colors. These regulations provide that in firms who usually keep more than two employees, the contract of employment of those employees who have been in the service of the firm for at least one year and who are called to the colors remains in force although suspended until the end of their military service. The disabled men, who find themselves in this position, therefore have the right to readmission to the employment occupied previous to being called to the colors. They must, however, furnish proof of the reacquired physical ability necessary to carry out the duties entailed and must forward their request to the firm within one year from the cessation of the war. The same privilege of reinstatement is granted by the law to disabled men who have been discharged by their employer previous to being called to the colors, provided that they are able to prove that the discharge was determined by the express desire to evade the obligations of the law. It should also be mentioned that the obligation, in the case of transfer of the firm, is to be assumed by the purchaser or licensee of the firm. Employers who do not employ more than three persons are not affected by the above obligation, provided they themselves have been called up for military service.

In connection with the employment of disabled soldiers by private firms it should also be noted that the law of March 25, 1917, provided that insurance institutes underwriting accident insurance of indus-

trial establishments must also insure disabled soldiers employed in such establishments and may not make a surcharge on the premium for their insurance unless the number of disabled soldiers employed in the establishment is in excess of 10 per cent of the total number of employees or workmen. The rules and limitations for the applications of an increase of the premium are to be determined by a decree to be issued by the Ministry of Industry, Commerce and Labor, in respect to all insurance institutes with the exception of the National Insurance Institute for Workmen's Accident Insurance (*Cassa Nazionale d'Assicurazione per gli Infortuni degli Operai sul Lavoro*). This latter institution in valuing the risk must keep within the limits and observe the rules stated in articles 13 of their own rules concerning premiums and indemnities as approved by Royal Decree No. 612 of April 15, 1915.

Finally, it should also be mentioned that the law of March 25, 1917, provides that disabled soldiers who have been pensioned are entitled to receive from all financial institutions special facilities for rates of interest and of refund in obtaining loans for the acquisition of farming or grazing land, of country property, or for the acquisition or building of a settlement or workmen's dwelling, giving as guaranty for the payment of the interest or of the refund the pension received by them.

WHAT BECOMES OF THE MAN DISABLED IN INDUSTRY IN DENMARK.

The Danish Industrial Accident Insurance Board (*Arbejderforsikrings-Raad*) has made a special study for the Fourth Scandinavian Industrial Accident Insurance Conference (*Nordisk Arbejderforsikringsmøde*) of what becomes of persons industrially disabled in Denmark.¹

Two earlier and similar studies in Denmark may be mentioned; one, by Bureau Chief Cordt Trap, a member of the industrial accident insurance board, based on material furnished by certain employers and printed in the proceedings of the First Scandinavian Industrial Accident Insurance Conference, 1907, p. 123, and in the *National-økonomisk Tidsskrift*, 1907, p. 626; the other by Division Chief Birkmose of the board, one part based on material from employers in the metal industry, the other part on experience among brick and stone masons. These latter studies are published only in the Danish Parliamentary proceedings (*Rigsdagstidende*, Tillæg A, ord. Saml., 1914-15, Sp. 3311 ff).

¹ Danske ulykkesinvalider; undersøgelse om hvordan det økonomisk er gaaet for personer, der 1905-1914 af Arbejderforsikrings-Raadet har faaet tilkendt erstatning for mindst 50 p. ct. invaliditet, * * * ved F. Zeuthen. (*Les invalides des accidents du travail en Danemark*). Copenhagen, 1918. 161 pp.

The data for the present study have been taken from the compensation statistics of the system of workmen's insurance. This system included until 1908 only industrial workers, but beginning in May, 1908, agricultural laborers were added. Payment of compensation for permanent injuries is by lump sum usually within a year after the injury occurs.

The investigation here noted includes 464 injury cases out of a total of 631 compensated during the period 1905-1914 for loss of earning capacity of 50 per cent and over. The material for the study was secured from each handicapped man by correspondence through employers, municipal authorities, and doctors.

OCCUPATION OF INJURED PERSONS.

Of the 464 injury cases studied approximately one-fourth are employed in a different trade from that before the injury; that is, 17 per cent entering a trade requiring considerable mental skill and 8 per cent entering office or similar work, or serving as messengers, watchmen, etc., work requiring neither special physical nor mental effort. About one-fourth of the injured persons have their own handicraft shops or agricultural holdings. The present occupations of the injured persons classified according to the nature of the injury are contained in the following table.

NUMBER AND PER CENT OF SPECIFIED INJURY CASES ACCORDING TO PRESENT
OCCUPATION OF INJURED PERSONS.

Present occupation.	Number.				Per cent.			
	Hand and arm.	Foot and leg.	Other.	Total.	Hand and arm.	Foot and leg.	Other.	Total.
Same with same employer.....	49	5	12	66	18.6	5.5	10.8	14.2
Same occupation.....	23	9	16	48	8.8	10.0	14.4	10.4
Other than occupation before injury..	41	27	10	78	15.6	30.0	9.0	16.8
Messenger, watchman, etc.....	18	1	3	22	6.8	1.1	2.7	4.7
Office work.....	11	4	-----	15	4.2	4.5	-----	3.2
Own handicraft shop.....	8	5	6	19	3.0	5.5	5.4	4.1
Own shop or store.....	28	9	16	53	10.7	10.0	14.4	11.4
Own agricultural plot.....	35	6	10	51	13.3	6.7	9.0	11.0
Housekeeper.....	10	-----	-----	10	3.8	-----	-----	2.2
Minor or unimportant work.....	20	9	16	45	7.6	10.0	14.4	9.7
Without employment.....	20	15	22	57	7.6	16.7	19.9	9.3
Total.....	263	90	111	464	100.0	100.0	100.0	100.0

NATURE OF INJURY AND LOSS OF EARNING CAPACITY.

Hand and arm cases have fared better under the provisions of the law than foot and leg cases, as appears from the table following. Thus, 66.3 per cent of the hand and arm cases as against only 14.9 per cent of the foot and leg cases have been compensated for loss of earning capacity of 70 per cent and over.

NUMBER AND PER CENT OF CASES CLASSIFIED BY LOSS OF EARNING CAPACITY.

Per cent of loss of earning capacity.	Number.			Per cent.		
	Hand and arm.	Foot and leg.	Total.	Hand and arm.	Foot and leg.	Total.
50 to 59 per cent.....	1	23	23	1.0	28.8	12.70
60 to 64 per cent.....	33	19	20	32.7	23.8	11.05
65 to 69 per cent.....	52	26	59	51.5	32.5	32.60
70 to 79 per cent.....	14	11	63	13.8	13.7	34.81
80 to 89 per cent.....	1	1	15	1.0	1.2	8.29
90 per cent and over.....	1	1	1	1.0	1.0	.55
Total.....	101	80	181	100.0	100.0	100.0

While it is shown by the study that compensation has been made under the law for a relatively greater degree of disability in hand and arm cases than in foot and leg cases yet from the point of view of period of disability before taking up work, of earning capacity upon reemployment, and of probability of needing public assistance, those who had lost a leg or a foot fared worse. This would seem to suggest that as a matter of fact the loss of a leg or a foot is a greater handicap to successful reemployment than the loss of a hand or an arm. The author of the study further states that the greater handicap of leg and foot over hand and arm cases is only partly explained by difference of age or other similar reason. It may be noted, too, that it is proposed to amend the law so as to allow greater compensation in the future for foot and leg cases.

No essential difference in resulting handicap seems to arise in case of the loss of the right or the left hand. Such difference as does at first arise is nullified with the lapse of time.

EFFECT OF INJURY UPON WAGES.

The table below includes only persons employed for wages in more important occupations. It is confined to males occupied in manufacturing and agriculture who were between the ages of 20 and 50 years at the time of the accident and who suffered the loss of or injuries to an arm or a leg.

NUMBER AND PER CENT OF INJURED PERSONS RECEIVING EACH CLASSIFIED AMOUNT OF ANNUAL EARNINGS.

Classified annual earnings.	Number.			Per cent.		
	Hand and arm.	Foot and leg.	Total.	Hand and arm.	Foot and leg.	Total.
400 crowns (\$107.20) and under.....	13	2	2	20.6	11.8	2.5
401 to 800 crowns (\$107.47 to \$214.40).....	23	7	20	36.6	41.1	25.0
801 to 1,200 crowns (\$214.67 to \$321.60).....	15	4	27	23.8	23.5	33.8
1,201 to 1,600 crowns (\$321.87 to \$428.80).....	12	2	17	19.0	11.8	21.2
1,601 crowns (\$429.07) and over.....	63	2	14	100.0	11.8	17.5
Total.....	63	17	80	100.0	100.0	100.0

As is evident in the table, wages vary considerably. Of the total of 80 cases involved, 22 are earning 800 crowns (\$214.40) or less per year; 27 from 800 to 1,200 crowns (\$214.40 to \$321.60), and 31 over 1,200 crowns (\$321.60). In hand-and-arm cases only 20.6 per cent are earning 800 crowns (\$214.40) or less per year, while in foot-and-leg cases the proportion is 52.9 per cent. Average wages are also less in foot-and-leg cases than in hand-and-arm cases.

AVERAGE WAGES BY INDUSTRY GROUP AND NATURE OF INJURY.

Industry.	Loss of arm or hand.	Other injury to arm or hand.	Leg injury.
	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
Metal and woodworking industries.....	1,550 (\$415.40)	1,470 (\$393.96)	950 (\$254.60)
Other manufacturing industries.....	1,140 (\$305.52)	1,200 (\$321.60)	1,160 (\$320.88)
Agriculture.....	725 (\$195.30)	900 (\$241.20)	630 (\$168.84)

To compare these earnings, which are compiled for the year 1916, with the earnings of persons not handicapped by injury the following facts are cited:

According to the reports of employers who are members of the Copenhagen Manufacturers' Association the average annual earnings of blacksmiths and machinists in Copenhagen are 2,435 crowns (\$652.58); and of those outside the city 1,958 crowns (\$424.74); for laborers in the city 1,634 crowns (\$437.91) and in outside districts 1,459 crowns (\$391.01); for workmen in factories 1,557 crowns (\$417.28) in the districts outside the city; and for operatives in the textile industry in the city 1,442 crowns (\$386.46).

The wages of adult male agricultural laborers employed by the month in 1915 averaged 795 crowns (\$213.06) for the year, and of those employed by the day, 830 crowns (\$222.44).

PERIOD OF DISABILITY.

In 244 injury cases information is available to show the period of disability. This material is contained in the following table:

NUMBER AND PER CENT OF INJURY CASES CLASSIFIED BY PERIOD OF DISABILITY (PERIOD BEFORE RETURNING TO WORK).

Period of disability.	Number.				Per cent.			
	Hand and arm.	Foot and leg.	Other.	Total.	Hand and arm.	Foot and leg.	Other.	Total.
Under 4 months.....	26	1	6	33	18.2	2.1	10.9	12.5
4 and under 6 months.....	20	1	3	24	14.1	2.1	5.5	9.9
6 and under 12 months.....	46	9	8	63	32.4	19.2	14.5	25.8
12 and under 18 months.....	23	10	11	44	16.2	21.3	20.0	18.0
18 and under 24 months.....	13	9	8	30	9.1	19.1	14.5	12.3
24 months and over.....	14	17	19	50	9.9	36.2	34.6	20.5
Total.....	142	47	55	244	100.0	100.0	100.0	100.0

[924]

UNEMPLOYMENT.

Only very limited data have been secured to show the amount of unemployment suffered by the handicapped after taking up employment. Of 163 injured persons 55 replied "Yes" to the inquiry as to whether as a result of their injury they were more subject to unemployment than their able-bodied fellow workers; 32 replied "No," while 76 did not venture any explanation. The amount of unemployment during the year suffered by the 55 answering in the affirmative was as follows:

Under 1 month.....	1
1 month but under 2.....	3
2 months but under 4.....	13
4 months but under 6.....	9
6 months and over.....	7
Not reported.....	22
Total.....	55

USE MADE OF COMPENSATION PAYMENTS.

The compensation received by the injured persons has been variously applied. Over three-fifths (64 per cent) of the 412 recipients for whom data are reported have placed it in permanent investments, some of which however have been lost. Thus, about one-fifth of the recipients have deposited all or some considerable part of the lump sums received in banks, and another fifth has applied the money wholly or partly to the purchase or improvement of small agricultural holdings or other properties; about one-seventh have invested their funds in annuities, mortgages, or other credit obligations, while the remainder have variously invested their funds.

Of the approximate two-fifths (36 per cent) who spent their funds for temporary objects, the largest proportion, or one-fourth, applied the money to pay such expenses as debts contracted after and as a result of the accident, while others applied them for the purchase of furniture, payment of former debts, for educational purposes, medical fees, or for artificial limbs. Only 18, or one-twenty-fifth of the total, may be said to have squandered the compensation received.

In 390 instances it is known whether or not the victims of accident during the period 1904 to 1914 still own any property. Thus 273, or 73 per cent, either have part of their compensation left or own property secured through the aid of the compensation paid, and 107, or 27 per cent, do not. The situation in this respect is more favorable for those who have taken up agricultural pursuits. Naturally, too, those who have suffered the greatest loss of earning capacity are less favorably situated in this respect.

METHOD OF COMPENSATION.

About four-fifths of the informants expressed their preference for the lump-sum method of compensation as against the annuity method. Those who preferred the annuity were those who had met with failure in their modest business adventures.

RELIEF BENEFITS.

Of 565 cases reported, relief benefits from either public or mutual aid funds were paid to 92, or 25 per cent, of the victims of industrial accidents, 10 per cent receiving poor relief, the others receiving old-age pensions, unemployment benefits, etc., provided under certain laws and regulations and not accountable as poor relief. Further, it is shown that at least one-half of those who received poor relief were alcoholics, or had dissipated their compensation.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD AND COAL IN THE UNITED STATES.

Retail prices of food as reported to the Bureau of Labor Statistics for August, 1918, show, for the United States, for all articles combined an increase of 2 per cent as compared with July, 1918. The prices of eight articles decreased. Fresh beef declined in price during the month. Chuck roast and plate boiling beef decreased 3 per cent each, rib roast and round steak decreased 2 per cent each, and sirloin decreased 1 per cent. Slight decreases are also shown in ham, lamb, and navy beans. Pork chops and eggs show the greatest increases. Bread, potatoes, and coffee did not change in price in the month.

The increase in the price of all articles of food combined in August, 1918, as compared with August, 1917, was 15 per cent. In this period hens show the greatest increase, or 38 per cent. Chuck roast increased 30 per cent; round steak 29 per cent; rib roast 28 per cent; sirloin steak, plate boiling beef, and bacon, 26 per cent each. Rice was 26 per cent higher than a year ago. Beans, flour, sugar, bread, and coffee were cheaper than in August, 1917.

AVERAGE MONEY RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE
AUG. 15, 1918, COMPARED WITH AUG. 15, 1917, AND JULY 15, 1918.

Article.	Unit.	Average money price.			Per cent of increase (+) or decrease (-) August 15, 1918, compared with—	
		Aug. 15, 1917.	July 15, 1918.	Aug. 15, 1918.	Aug. 15, 1917.	July 15, 1918.
Sirloin steak.....	Pound.....	\$0.329	\$0.421	\$0.415	+26	-1
Round steak.....	do.....	.308	.403	.396	+29	-2
Rib roast.....	do.....	.255	.333	.326	+23	-2
Chuck roast.....	do.....	.217	.291	.283	+30	-3
Plate beef.....	do.....	.172	.224	.217	+26	-3
Pork chops.....	do.....	.344	.379	.422	+23	+11
Bacon.....	do.....	.430	.523	.540	+26	+3
Ham.....	do.....	.395	.487	.485	+23	(1)
Lard.....	do.....	.277	.325	.331	+19	+2
Lamb.....	do.....	.297	.373	.369	+24	-1
Hens.....	do.....	.279	.380	.386	+33	+2
Salmon, canned.....	do.....	.271	.296	.302	+11	+2
Eggs.....	Dozen.....	.460	.491	.536	+17	+9
Butter.....	Pound.....	.476	.526	.539	+13	+2
Cheese.....	do.....	.328	.335	.346	+5	+3
Milk.....	Quart.....	.114	.132	.136	+19	+3
Bread.....	Pound ².....	.102	.099	.099	-3	(2)
Flour.....	do.....	.075	.067	.068	-9	+1
Corn meal.....	do.....	.066	.067	.068	+3	+1
Rice.....	do.....	.106	.129	.134	+26	+4
Potatoes.....	do.....	.036	.039	.039	+8	(2)
Onions.....	do.....	.046	.053	.055	+20	+4
Beans, navy.....	do.....	.192	.173	.171	-11	-1
Prunes.....	do.....	.162	.167	.171	+6	+2
Raisins, seeded.....	do.....	.148	.151	.153	+3	+1
Sugar.....	do.....	.099	.092	.093	-6	+1
Coffee.....	do.....	.305	.301	.301	-1	(2)
Tea.....	do.....	.602	.653	.653	+9	+1
All articles combined.....					+15	+2

¹ Decrease of less than five-tenths per cent.

² No change in price.

³ Baked weight.

For the five-year period, August 15, 1913, to August 15, 1918, all food combined showed an increase in price of 70 per cent. All the 17 articles for which prices have been obtained for five years show increases of 52 per cent and over. Four articles increased over 100 per cent, as follows: Corn meal, 127 per cent; lard and flour, 106 per cent each; and potatoes, 105 per cent.

The prices for bread given in this report are for a pound of baked bread instead of a loaf of 16 ounces, scaling weight. For all loaves weighing other than 1 pound baked the price per pound has been computed. No figures were obtainable for baked weights previous to 1918, hence figures for those years have been converted to an 18-ounce scaling weight from those previously published for a 16-ounce scaling weight, as 18 ounces is now the average scaling weight for a baked loaf weighing a pound. This gives prices comparable with those for 1918 on a pound loaf, baked weight.

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

Article.	Unit.	Average money price Aug. 15—						Per cent of increase (+) or decrease (—) August 15 of each specified year compared with Aug. 15, 1913.				
		1913	1914	1915	1916	1917	1918	1914	1915	1916	1917	1918
Sirloin steak.....	Pound..	\$0.265	\$0.278	\$0.265	\$0.284	\$0.329	\$0.415	+ 5	(¹)	+ 7	+ 24	+ 57
Round steak.....	do.....	.233	.252	.238	.257	.308	.396	+ 8	+ 2	+10	+ 32	+ 70
Rib roast.....	do.....	.201	.214	.204	.218	.255	.326	+ 6	+ 1	+ 8	+ 27	+ 62
Chuck roast.....	do.....	.181	.167	.177	.177	.217	.283	.....	.....	.....	.....	.....
Plate beef.....	do.....	.131	.123	.129	.172	.217	.....	.....	.....	.....	.....	.....
Pork chops.....	do.....	.218	.250	.216	.243	.344	.422	+15	— 1	+11	+ 58	+ 94
Bacon.....	do.....	.281	.287	.270	.293	.430	.540	+ 2	— 4	+ 4	+ 53	+ 92
Ham.....	do.....	.285	.291	.262	.326	.395	.485	+ 2	— 8	+14	+ 39	+ 70
Lard.....	do.....	.161	.156	.140	.210	.277	.331	— 3	—13	+30	+ 72	+106
Lamb.....	do.....	.189	.206	.205	.231	.297	.369	+ 9	+ 8	+22	+ 57	+ 95
Hens.....	do.....	.215	.222	.205	.238	.279	.386	+ 3	— 5	+11	+ 30	+ 80
Salmon, canned.....	do.....	.....	.....	.198	.202	.271	.302	.....	.....	.....	.....	.....
Eggs.....	Dozen.....	.330	.334	.304	.364	.460	.536	+ 1	— 8	+10	+ 39	+ 62
Butter.....	Pound.....	.355	.362	.335	.366	.476	.539	+ 2	— 6	+ 3	+ 34	+ 52
Cheese.....	do.....	.....	.....	.227	.245	.328	.346	.....	.....	.....	.....	.....
Milk.....	Quart.....	.088	.089	.088	.090	.114	.136	+ 1	(¹)	+ 2	+ 30	+ 55
Bread.....	Pound ².....	.056	.063	.071	.072	.102	.099	+13	+27	+29	+ 82	+ 77
Flour.....	do.....	.033	.035	.040	.044	.075	.068	+ 6	+21	+33	+127	+106
Corn meal.....	do.....	.030	.032	.033	.033	.066	.068	+ 7	+10	+10	+120	+127
Rice.....	do.....	.....	.....	.091	.091	.106	.134	.....	.....	.....	.....	.....
Potatoes.....	do.....	.019	.019	.014	.025	.036	.039	(¹)	—26	+32	+ 89	+105
Onions.....	do.....	.....	.....	.031	.050	.046	.055	.....	.....	.....	.....	.....
Beans, navy.....	do.....	.....	.....	.076	.121	.192	.171	.....	.....	.....	.....	.....
Prunes.....	do.....	.....	.....	.135	.134	.162	.171	.....	.....	.....	.....	.....
Raisins, seeded.....	do.....	.....	.....	.125	.128	.148	.153	.....	.....	.....	.....	.....
Sugar.....	do.....	.056	.078	.067	.085	.099	.093	+39	+20	+52	+ 77	+ 66
Coffee.....	do.....	.....	.....	.299	.299	.305	.301	.....	.....	.....	.....	.....
Tea.....	do.....	.....	.....	.546	.546	.602	.658	.....	.....	.....	.....	.....
All articles combined.....	.....	.....	.....	.....	.....	.....	.....	+ 6	— 1	+13	+ 47	+ 70

¹ No change in price.

² Baked weight.

RELATIVE RETAIL PRICES OF FOOD ON JULY 15 AND AUG. 15, 1918, AND ON AUG. 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		Aug. 15—				
		July 15.	Aug. 15.	1913	1914	1915	1916	1917
Sirloin steak.....	Pound.....	166	163	104	110	104	112	130
Round steak.....	do.....	181	178	104	113	107	115	138
Rib roast.....	do.....	168	165	102	108	104	111	129
Pork chops.....	do.....	180	201	104	119	103	116	164
Bacon.....	do.....	194	200	105	107	100	108	160
Ham.....	do.....	181	180	106	108	98	121	147
Lard.....	do.....	206	209	102	99	89	133	176
Hens.....	do.....	178	181	101	104	97	112	131
Eggs.....	Dozen.....	142	155	96	96	88	105	134
Butter.....	Pound.....	137	141	92	94	88	95	124
Milk.....	Quart.....	149	153	99	100	99	101	128
Bread.....	Pound ¹	174	174	100	112	126	128	182
Flour.....	do.....	203	206	100	106	124	134	229
Corn meal.....	do.....	223	227	100	105	108	110	219
Potatoes.....	do.....	229	229	109	111	82	141	206
Sugar.....	do.....	167	169	102	143	123	155	181
All articles combined.....		167	171	101	107	100	113	149

¹ Baked weight.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR AUGUST 15, 1913, 1914, 1917, 1918, AND JULY 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.	Atlanta, Ga.					Baltimore, Md.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.250	\$0.276	\$0.311	\$0.398	\$0.396	\$0.243	\$0.270	\$0.332	\$0.466	\$0.465
Round steak.....	do.....	.215	.234	.278	.366	.365	.230	.252	.322	.459	.457
Rib roast.....	do.....	.201	.203	.229	.300	.313	.193	.204	.258	.368	.366
Chuck roast.....	do.....	.171	.196	.196	.264	.259	.170	.230	.317	.317	.313
Pork chops.....	do.....	.109	.109	.157	.209	.218	.145	.163	.249	.242	.242
Bacon.....	do.....	.235	.268	.334	.386	.424	.193	.232	.352	.420	.460
Ham, sliced.....	do.....	.320	.336	.429	.550	.578	.203	.244	.422	.495	.513
Lard.....	do.....	.310	.330	.405	.482	.509	.345	.335	.428	.528	.543
Lamb.....	do.....	.161	.170	.271	.336	.340	.150	.145	.268	.320	.324
Hens.....	do.....	.194	.208	.288	.400	.371	.183	.210	.295	.403	.416
Salmon, canned.....	do.....	.202	.218	.232	.362	.353	.212	.217	.295	.425	.427
Eggs.....	Dozen..	.283	.309	.424	.431	.498	.277	.286	.424	.456	.499
Butter.....	Pound..	.371	.377	.497	.574	.579	.367	.373	.496	.550	.583
Cheese.....	do.....	.334	.334	.345	.350	.350	.352	.352	.352	.350	.353
Milk.....	Quart..	.100	.100	.133	.200	.200	.088	.087	.108	.130	.130
Bread.....	Pound ¹ ..	.060	.059	.102	.100	.100	.054	.057	.089	.097	.097
Flour.....	do.....	.035	.035	.073	.071	.071	.032	.036	.076	.068	.069
Corn meal.....	do.....	.026	.029	.063	.057	.057	.025	.025	.062	.063	.065
Rice.....	do.....	.107	.136	.139	.139	.139	.108	.121	.130	.130	.130
Potatoes.....	do.....	.023	.026	.043	.044	.051	.017	.018	.029	.040	.042
Onions.....	do.....	.061	.062	.065	.065	.065	.046	.055	.055	.055	.055
Beans, navy.....	do.....	.190	.189	.188	.188	.188	.186	.179	.178	.178	.178
Prunes.....	do.....	.175	.178	.185	.185	.185	.159	.167	.174	.174	.174
Raisins, seeded.....	do.....	.150	.156	.156	.156	.156	.142	.152	.156	.156	.156
Sugar.....	do.....	.059	.080	.107	.093	.094	.051	.073	.095	.089	.090
Coffee.....	do.....	.298	.298	.293	.296	.296	.274	.283	.284	.284	.284
Tea.....	do.....	.774	.877	.881	.881	.881	.624	.675	.685	.685	.685

¹ Baked weight.

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

Article.	Unit.	Birmingham, Ala.					Boston, Mass.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.281	\$0.294	\$0.355	\$0.436	\$0.414	\$0.358	\$0.406	\$0.429	\$0.550	\$0.575
Round steak.....	do.....	.225	.244	.325	.401	.387	.362	.377	.452	.571	.580
Rib roast.....	do.....	.206	.225	.263	.360	.335	.256	.257	.310	.397	.410
Chuck roast.....	do.....	.175	.220	.305	.295		.192	.269	.335	.339	
Plate beef.....	do.....	.125	.163	.237	.226						
Pork chops.....	do.....	.200	.250	.345	.368	.387	.242	.252	.351	.427	.475
Bacon, sliced.....	do.....	.350	.350	.477	.549	.546	.258	.268	.416	.485	.510
Ham, sliced.....	do.....	.313	.350	.418	.460	.474	.338	.345	.424	.499	.515
Lard.....	do.....	.165	.160	.285	.316	.324	.157	.159	.279	.328	.332
Lamb.....	do.....	.233	.244	.325	.400	.393	.230	.252	.340	.403	.386
Hens.....	do.....	.170	.193	.221	.336	.326	.256	.260	.308	.433	.438
Salmon, canned.....	do.....			.263	.291	.302			.290	.306	.322
Eggs.....	Dozen..	.283	.327	.422	.444	.487	.424	.406	.580	.639	.671
Butter.....	Pound..	.390	.388	.515	.547	.563	.359	.363	.471	.522	.532
Cheese.....	do.....			.345	.345	.348			.318	.330	.334
Milk.....	Quart..	.103	.100	.133	.160	.160	.089	.089	.130	.145	.150
Bread.....	Pound 1.	.054	.056	.106	.102	.115	.059	.059	.093	.091	.091
Flour.....	do.....	.036	.036	.075	.072	.071	.038	.040	.083	.069	.063
Corn meal.....	do.....	.024	.029	.063	.055	.056	.035	.036	.074	.075	.073
Rice.....	do.....			.110	.131	.140			.110	.127	.131
Potatoes.....	do.....	.023	.027	.042	.041	.047	.019	.019	.033	.051	.041
Onions.....	do.....			.062	.055	.057			.052	.067	.068
Beans, navy.....	do.....			.189	.179	.185			.188	.177	.176
Prunes.....	do.....			.163	.153	.160			.168	.170	.173
Raisins, seeded.....	do.....			.152	.156	.153			.146	.152	.150
Sugar.....	do.....	.057	.080	.107	.091	.090	.056	.079	.097	.092	.092
Coffee.....	do.....			.330	.321	.324			.341	.342	.340
Tea.....	do.....			.729	.765	.796			.632	.642	.640
		Buffalo, N. Y.					Chicago, Ill.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	do.....	\$0.238	\$0.252	\$0.320	\$0.415	\$0.410	\$0.241	\$0.277	\$0.308	\$0.377	\$0.377
Round steak.....	do.....	.205	.226	.300	.391	.386	.212	.244	.273	.350	.349
Rib roast.....	do.....	.170	.184	.248	.323	.316	.202	.227	.251	.318	.314
Chuck roast.....	do.....	.166	.215	.293	.283		.182	.213	.285	.278	
Plate beef.....	do.....	.132	.165	.231	.226		.132	.167	.213	.210	
Pork chops.....	do.....	.220	.248	.392	.414	.459	.209	.239	.322	.355	.388
Bacon, sliced.....	do.....	.245	.236	.414	.486	.517	.320	.333	.429	.547	.564
Ham, sliced.....	do.....	.280	.290	.413	.481	.509	.322	.346	.407	.491	.505
Lard.....	do.....	.145	.140	.264	.309	.314	.151	.151	.265	.318	.321
Lamb.....	do.....	.155	.173	.274	.346	.359	.199	.222	.288	.357	.354
Hens.....	do.....	.218	.218	.289	.391	.401	.197	.208	.265	.353	.357
Salmon, canned.....	do.....			.257	.277	.278			.270	.303	.306
Eggs.....	Dozen..	.298	.287	.487	.501	.540	.273	.280	.428	.457	.478
Butter.....	Pound..	.329	.348	.463	.510	.514	.327	.332	.448	.480	.490
Cheese.....	do.....			.318	.319	.326			.342	.345	.357
Milk.....	Quart..	.080	.080	.110	.130	.140	.080	.100	.100	.120	.124
Bread.....	Pound 1.	.056	.050	.097	.100	.100	.061	.060	.105	.102	.102
Flour.....	do.....	.031	.033	.077	.062	.063	.029	.033	.072	.065	.065
Corn meal.....	do.....	.026	.026	.064	.066	.065	.028	.028	.059	.068	.068
Rice.....	do.....			.105	.124	.126			.105	.125	.127
Potatoes.....	do.....	.020	.018	.032	.044	.037	.020	.018	.034	.037	.035
Onions.....	do.....			.051	.060	.051			.037	.046	.045
Beans, navy.....	do.....			.190	.169	.164			.192	.173	.169
Prunes.....	do.....			.159	.176	.176			.165	.171	.172
Raisins, seeded.....	do.....			.131	.140	.140			.146	.148	.150
Sugar.....	do.....	.055	.079	.098	.090	.091	.052	.072	.094	.088	.089
Coffee.....	do.....			.291	.300	.296			.292	.284	.279
Tea.....	do.....			.513	.590	.608			.571	.581	.575

¹ Baked weight.

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

Article.	Unit.	Cleveland, Ohio.					Denver, Colo.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.	\$0.254	\$0.273	\$0.308	\$0.395	\$0.388	\$0.243	\$0.250	\$0.315	\$0.411	\$0.390
Round steak.....	do.	.229	.239	.291	.372	.365	.222	.235	.296	.395	.363
Rib roast.....	do.	.187	.235	.311	.299	.311	.178	.189	.239	.316	.291
Chuck roast.....	do.	.172	.215	.283	.278	.278	.174	.211	.290	.253	.253
Plate beef.....	do.	.122	.151	.211	.205	.205	.107	.147	.202	.180	.180
Pork chops.....	do.	.221	.256	.392	.379	.448	.200	.253	.347	.381	.414
Bacon sliced.....	do.	.303	.306	.441	.490	.521	.305	.305	.455	.569	.569
Ham, sliced.....	do.	.373	.365	.441	.488	.510	.338	.325	.438	.515	.525
Lard.....	do.	.166	.160	.281	.316	.329	.165	.158	.289	.316	.325
Lamb.....	do.	.193	.216	.285	.361	.363	.161	.179	.308	.356	.357
Hens.....	do.	.215	.226	.302	.390	.404	.194	.216	.267	.356	.360
Salmon, canned.....	do.	.249	.249	.289	.293	.293	.264	.264	.280	.288	.288
Eggs.....	do.	.333	.333	.495	.495	.539	.300	.307	.450	.467	.498
Butter.....	Pound.	.357	.377	.478	.525	.538	.343	.343	.448	.492	.500
Cheese.....	do.	.313	.324	.336	.324	.336	.347	.347	.346	.353	.353
Milk.....	Quart.	.080	.080	.120	.130	.130	.084	.084	.103	.115	.112
Bread.....	Pound l.	.056	.056	.101	.100	.100	.054	.054	.101	.120	.120
Flour.....	do.	.032	.036	.076	.071	.070	.025	.045	.065	.055	.090
Corn meal.....	do.	.028	.028	.063	.066	.066	.025	.025	.062	.059	.060
Rice.....	do.	.103	.128	.132	.132	.132	.112	.134	.142	.142	.142
Potatoes.....	do.	.021	.020	.033	.045	.041	.018	.013	.041	.038	.038
Onions.....	do.	.047	.052	.057	.057	.057	.044	.049	.049	.049	.049
Beans, navy.....	do.	.199	.153	.153	.153	.153	.202	.157	.159	.159	.159
Prunes.....	do.	.153	.167	.173	.173	.173	.178	.168	.176	.176	.176
Raisins, seeded.....	do.	.140	.150	.149	.149	.149	.147	.147	.147	.147	.147
Sugar.....	do.	.056	.082	.100	.092	.093	.058	.077	.097	.096	.096
Coffee.....	do.	.280	.296	.294	.294	.294	.307	.306	.304	.304	.304
Tea.....	do.	.512	.632	.632	.632	.632	.569	.608	.610	.610	.610
		Detroit, Mich.					Los Angeles, Cal.				
Sirloin steak.....	do.	\$0.210	\$0.259	\$0.316	\$0.392	\$0.390	\$0.240	\$0.237	\$0.268	\$0.329	\$0.329
Round steak.....	do.	.210	.226	.286	.367	.360	.210	.215	.239	.312	.311
Rib roast.....	do.	.205	.200	.258	.312	.308	.196	.198	.224	.289	.292
Chuck roast.....	do.	.166	.202	.275	.268	.268	.159	.177	.237	.234	.234
Plate beef.....	do.	.124	.152	.217	.211	.211	.131	.143	.197	.194	.194
Pork chops.....	do.	.215	.234	.355	.375	.415	.254	.270	.344	.415	.425
Bacon, sliced.....	do.	.250	.260	.427	.502	.522	.338	.352	.475	.593	.613
Ham, sliced.....	do.	.280	.300	.417	.493	.522	.367	.374	.458	.568	.572
Lard.....	do.	.166	.157	.275	.326	.332	.179	.173	.273	.334	.336
Lamb.....	do.	.173	.189	.300	.361	.360	.188	.193	.274	.319	.329
Hens.....	do.	.218	.221	.288	.385	.394	.268	.272	.271	.348	.364
Salmon, canned.....	do.	.258	.304	.313	.304	.313	.303	.372	.372	.372	.372
Eggs.....	Dozen	.300	.292	.463	.505	.533	.390	.400	.469	.528	.569
Butter.....	Pound.	.337	.348	.455	.504	.514	.395	.343	.487	.566	.580
Cheese.....	do.	.308	.326	.338	.338	.338	.330	.342	.353	.353	.353
Milk.....	Quart.	.079	.080	.120	.130	.140	.100	.100	.110	.140	.140
Bread.....	Pound l.	.056	.055	.090	.095	.095	.060	.062	.089	.091	.093
Flour.....	do.	.031	.033	.076	.072	.069	.036	.036	.070	.067	.071
Corn meal.....	do.	.028	.032	.067	.073	.072	.033	.035	.070	.073	.077
Rice.....	do.	.107	.131	.133	.133	.133	.102	.131	.136	.136	.136
Potatoes.....	do.	.019	.017	.035	.043	.038	.018	.011	.038	.023	.033
Onions.....	do.	.048	.053	.054	.054	.054	.029	.039	.042	.042	.042
Beans, navy.....	do.	.190	.154	.151	.151	.151	.174	.165	.167	.167	.167
Prunes.....	do.	.164	.176	.182	.182	.182	.163	.168	.177	.177	.177
Raisins, seeded.....	do.	.138	.149	.152	.152	.152	.141	.142	.140	.140	.140
Sugar.....	do.	.054	.081	.100	.093	.095	.056	.081	.092	.088	.089
Coffee.....	do.	.294	.302	.304	.304	.304	.306	.302	.304	.304	.304
Tea.....	do.	.508	.559	.577	.577	.577	.565	.639	.645	.645	.645

¹ Baked weight.

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

Article.	Unit.	Milwaukee, Wis.					New Orleans, La.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.	\$0.226	\$0.248	\$0.305	\$0.380	\$0.373	\$0.219	\$0.238	\$0.277	\$0.339	\$0.332
Round steak.....	do.	.212	.228	.285	.365	.358	.189	.199	.239	.313	.300
Rib roast.....	do.	.188	.194	.242	.305	.291	.194	.196	.230	.303	.291
Chuck roast.....	do.	.....	.170	.221	.281	.269	.....	.154	.183	.231	.218
Plate beef.....	do.	.....	.126	.156	.215	.204	.....	.128	.152	.193	.187
Pork chops.....	do.	.202	.230	.342	.354	.387	.238	.270	.336	.387	.416
Bacon, sliced.....	do.	.286	.286	.420	.506	.527	.317	.324	.458	.542	.555
Ham, sliced.....	do.	.290	.292	.398	.464	.482	.313	.300	.391	.450	.457
Lard.....	do.	.163	.160	.277	.321	.331	.154	.147	.271	.330	.329
Lamb.....	do.	.205	.210	.305	.377	.369	.213	.222	.279	.368	.361
Hens.....	do.	.198	.214	.259	.344	.359	.217	.213	.283	.375	.364
Salmon, canned.....	do.	.....	.....	.271	.294	.289	.....	.....	.300	.323	.324
Eggs.....	Dozen	.252	.270	.425	.450	.474	.304	.298	.413	.448	.484
Butter.....	Pound.	.322	.337	.454	.493	.501	.340	.356	.467	.513	.526
Cheese.....	do.	.....	.....	.321	.312	.341	.....	.....	.312	.325	.343
Milk.....	Quart.	.070	.070	.090	.100	.110	.093	.097	.116	.142	.142
Bread.....	Pound ¹ .	.056	.060	.114	.092	.092	.051	.048	.087	.095	.095
Flour.....	do.	.031	.035	.078	.065	.067	.037	.038	.080	.073	.073
Corn meal.....	do.	.033	.036	.074	.066	.061	.028	.028	.072	.064	.066
Rice.....	do.	.....	.....	.115	.135	.141	.....	.....	.102	.119	.123
Potatoes.....	do.	.015	.019	.038	.041	.035	.022	.025	.051	.030	.039
Onions.....	do.	.....	.....	.045	.053	.052	.....	.....	.050	.043	.054
Beans, navy.....	do.	.....	.....	.203	.150	.149	.....	.....	.172	.161	.160
Prunes.....	do.	.....	.....	.158	.153	.156	.....	.....	.169	.165	.171
Raisins, seeded.....	do.	.....	.....	.148	.148	.148	.....	.....	.154	.154	.157
Sugar.....	do.	.055	.074	.099	.091	.093	.053	.080	.099	.090	.090
Coffee.....	do.	.....	.....	.281	.269	.268	.....	.....	.266	.251	.251
Tea.....	do.	.....	.....	.594	.620	.636	.....	.....	.605	.615	.618
		New York, N. Y.					Philadelphia, Pa.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	do.	\$0.268	\$0.292	\$0.351	\$0.439	\$0.448	\$0.323	\$0.331	\$0.387	\$0.531	\$0.513
Round steak.....	do.	.261	.284	.351	.463	.467	.275	.291	.364	.483	.482
Rib roast.....	do.	.219	.235	.286	.375	.376	.225	.237	.286	.391	.392
Chuck roast.....	do.	.....	.182	.226	.311	.311	.....	.195	.248	.350	.335
Plate beef.....	do.	.....	.160	.206	.288	.286	.....	.128	.168	.239	.230
Pork chops.....	do.	.222	.259	.348	.406	.423	.224	.262	.361	.419	.456
Bacon, sliced.....	do.	.264	.261	.423	.498	.519	.282	.284	.417	.527	.542
Ham, sliced.....	do.	2.217	2.224	2.283	2.346	2.361	.326	.332	.453	.533	.545
Lard.....	do.	.162	.156	.275	.322	.325	.156	.151	.283	.323	.330
Lamb.....	do.	.158	.186	.264	.332	.331	.202	.215	.313	.391	.392
Hens.....	do.	.220	.225	.288	.410	.407	.231	.240	.306	.434	.433
Salmon, canned.....	do.	.....	.....	.317	.334	.354	.....	.....	.250	.265	.278
Eggs.....	Dozen	.386	.389	.544	.573	.609	.343	.330	.476	.520	.550
Butter.....	Pound.	.343	.355	.470	.514	.521	.394	.407	.531	.576	.586
Cheese.....	do.	.....	.....	.331	.332	.335	.....	.....	.348	.361	.367
Milk.....	Quart.	.090	.090	.125	.127	.140	.080	.080	.110	.120	.120
Bread.....	Pound ¹ .	.061	.064	.099	.100	.099	.048	.047	.089	.095	.095
Flour.....	do.	.033	.036	.079	.072	.074	.032	.036	.080	.071	.070
Corn meal.....	do.	.034	.034	.067	.079	.078	.027	.028	.057	.068	.070
Rice.....	do.	.....	.....	.104	.126	.134	.....	.....	.110	.138	.144
Potatoes.....	do.	.024	.022	.032	.042	.038	.021	.020	.026	.048	.041
Onions.....	do.	.....	.....	.047	.057	.063	.....	.....	.049	.056	.066
Beans, navy.....	do.	.....	.....	.189	.175	.174	.....	.....	.182	.171	.171
Prunes.....	do.	.....	.....	.165	.177	.185	.....	.....	.155	.170	.177
Raisins, seeded.....	do.	.....	.....	.146	.149	.150	.....	.....	.138	.144	.144
Sugar.....	do.	.050	.071	.090	.088	.088	.050	.071	.090	.089	.089
Coffee.....	do.	.....	.....	.263	.274	.280	.....	.....	.270	.268	.273
Tea.....	do.	.....	.....	.501	.540	.542	.....	.....	.576	.569	.566

¹ Baked weight.² Whole.

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

Article.	Unit.	Pittsburgh, Pa.					St. Louis, Mo.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.	Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.280	\$0.298	\$0.364	\$0.471	\$0.467	\$0.256	\$0.283	\$0.311	\$0.384	\$0.380
Round steak.....	do....	.248	.265	.331	.440	.437	.247	.260	.305	.379	.376
Rib roast.....	do....	.225	.235	.277	.366	.357	.190	.200	.255	.316	.307
Chuck roast.....	do....	..	.187	.235	.327	.315	..	.168	.210	.264	.257
Plate beef.....	do....	..	.138	.168	.234	.229	..	.142	.160	.212	.206
Pork chops.....	do....	.235	.270	.360	.398	.444	.208	.263	.355	.366	.406
Bacon, sliced.....	do....	.301	.315	.443	.537	.557	.280	.280	.420	.494	.503
Ham, sliced.....	do....	.316	.329	.437	.519	.544	.283	.300	.416	.494	.502
Lard.....	do....	.158	.157	.281	.322	.327	.145	.139	.263	.296	.304
Lamb.....	do....	.197	.227	.329	.391	.386	.190	.193	.280	.376	.346
Hens.....	do....	.260	.265	.346	.438	.441	.174	.187	.246	.340	.341
Salmon, canned.....	do....	..	..	.287	.313	.320	..	..	.271	.300	.298
Eggs.....	Dozen..	.289	.291	.435	.489	.531	.230	.256	.377	.425	.466
Butter.....	Pound..	.356	.368	.475	.530	.540	.338	.355	.475	.522	.538
Cheese.....	do....	..	..	.326	.343	.358	..	..	.324	.333	.358
Milk.....	Quart..	.086	.090	.125	.128	.130	.080	.080	.110	.123	.140
Bread.....	Pound ¹ .	.054	.054	.104	.098	.098	.055	.056	.108	.100	.100
Flour.....	do....	.032	.036	.078	.067	.067	.030	.033	.071	.063	.065
Corn meal.....	do....	.028	.030	.070	.068	.071	.022	.026	.062	.057	.061
Rice.....	do....	..	..	.106	.133	.140	..	..	.099	.129	.134
Potatoes.....	do....	.019	.019	.032	.045	.039	.019	.020	.033	.034	.034
Onions.....	do....	..	..	.051	.058	.059	..	..	.043	.044	.051
Beans, navy.....	do....	..	..	.189	.174	.170	..	..	.194	.170	.169
Prunes.....	do....	..	..	.159	.180	.179	..	..	.168	.166	.176
Raisins, seeded.....	do....	..	..	.146	.143	.147	..	..	.170	.165	.164
Sugar.....	do....	.057	.079	.102	.094	.094	.054	.079	.100	.090	.094
Coffee.....	do....	..	..	.302	.296	.296	..	..	.280	.270	.277
Tea.....	do....	..	..	.685	.750	.752	..	..	.610	.683	.687
		San Francisco, Cal.					Seattle, Wash.				
		1913	1914	1917	1918	1918	1913	1914	1917	1918	1918
Sirloin steak.....	do....	\$0.207	\$0.207	\$0.231	\$0.321	\$0.316	\$0.244	\$0.233	\$0.261	\$0.370	\$0.362
Round steak.....	do....	.193	.197	.226	.316	.310	.215	.205	.248	.353	.343
Rib roast.....	do....	.210	.217	.227	.300	.300	.200	.188	.219	.315	.313
Chuck roast.....	do....	..	.155	.157	.232	.228	..	.145	.178	.255	.254
Plate beef.....	do....	..	.150	.153	.213	.210	..	.120	.150	.213	.207
Pork chops.....	do....	.237	.250	.328	.403	.430	.242	.245	.339	.401	.445
Bacon, sliced.....	do....	.347	.356	.446	.557	.583	.342	.333	.460	.562	.581
Ham, sliced.....	do....	.320	.330	.430	.512	.503	.317	.317	.406	.500	.519
Lard.....	do....	.180	.170	.284	.334	.341	.174	.160	.269	.330	.336
Lamb.....	do....	.165	.184	.266	.338	.338	.194	.176	.270	.368	.357
Hens.....	do....	.238	.243	.262	.383	.405	.238	.228	.258	.384	.394
Salmon, canned.....	do....	..	..	.245	.267	.273	..	..	.270	.293	.299
Eggs.....	Dozen..	.382	.400	.475	.514	.573	.390	.392	.511	.547	.599
Butter.....	Pound..	.407	.346	.504	.566	.586	.390	.378	.491	.548	.592
Cheese.....	do....	..	..	.306	.323	.338	..	..	.303	.316	.333
Milk.....	Quart..	.100	.100	.100	.121	.121	.085	.086	.120	.128	.140
Bread.....	Pound ¹ .	.059	.059	.093	.100	.100	.055	.060	.104	.108	.108
Flour.....	do....	.034	.069	.069	.069	.071	.030	.030	.067	.061	.065
Corn meal.....	do....	.034	.035	.069	.073	.072	.032	.033	.073	.074	.074
Rice.....	do....	..	..	.099	.135	.137	..	..	.103	.141	.141
Potatoes.....	do....	.017	.011	.035	.029	.033	.016	.017	.027	.038	.043
Onions.....	do....	..	..	.024	.025	.032	..	..	.029	.036	.041
Beans, navy.....	do....	..	..	.185	.152	.153	..	..	.197	.176	.171
Prunes.....	do....	..	..	.144	.148	.151	..	..	.142	.148	.157
Raisins, seeded.....	do....	..	..	.142	.129	.138	..	..	.147	.143	.144
Sugar.....	do....	.055	.079	.091	.089	.089	.063	.082	.098	.092	.095
Coffee.....	do....	..	..	.304	.304	.314	..	..	.309	.317	.316
Tea.....	do....	..	..	.521	.533	.544	..	..	.520	.583	.579

¹ Baked weight.

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

Article.	Unit.	Washington, D. C.				
		Aug. 15—			July 15, 1918.	Aug. 15, 1918.
		1913	1914	1917		
Sirloin steak.....	Pound..	\$0.278	\$0.313	\$0.354	\$0.492	\$0.494
Round steak.....	do.....	.245	.284	.341	.471	.470
Rib roast.....	do.....	.216	.244	.279	.397	.396
Chuck roast.....	do.....	.198	.240	.353	.351	.351
Plate beef.....	do.....	.146	.181	.238	.252	.252
Pork chops.....	do.....	.230	.269	.412	.465	.480
Bacon, sliced.....	do.....	.284	.289	.413	.516	.526
Ham, sliced.....	do.....	.310	.320	.410	.512	.521
Lard.....	do.....	.153	.144	.276	.337	.340
Lamb.....	do.....	.194	.240	.337	.430	.443
Hens.....	do.....	.219	.219	.311	.443	.445
Salmon, canned.....	do.....	.230	.230	.284	.301	.301
Eggs.....	Dozen.....	.300	.314	.443	.481	.537
Butter.....	Pound.....	.386	.383	.481	.560	.560
Cheese.....	do.....	.341	.341	.341	.332	.351
Milk.....	Quart.....	.080	.080	.110	.140	.140
Bread.....	Pound ¹.....	.057	.056	.102	.102	.103
Flour.....	do.....	.038	.041	.077	.067	.069
Corn meal.....	do.....	.025	.026	.062	.060	.060
Rice.....	do.....	.109	.109	.124	.124	.126
Potatoes.....	do.....	.020	.019	.029	.045	.042
Onions.....	do.....	.052	.052	.061	.058	.058
Beans, navy.....	do.....	.200	.200	.182	.174	.174
Prunes.....	do.....	.162	.162	.176	.175	.175
Raisins, seeded.....	do.....	.144	.144	.155	.162	.162
Sugar.....	do.....	.052	.079	.092	.089	.089
Coffee.....	do.....	.281	.281	.287	.292	.292
Tea.....	do.....	.588	.588	.708	.713	.713

¹ Baked weight.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR JULY 15, 1918,
AND AUGUST 15, 1918, FOR 31 CITIES.

[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.	
		July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.
Sirloin steak.....	Pound..	\$0.529	\$0.529	\$0.388	\$0.368	\$0.377	\$0.373	\$0.366	\$0.347	\$0.409	\$0.399
Round steak.....	do.....	.506	.513	.361	.340	.383	.386	.359	.338	.383	.376
Rib roast.....	do.....	.402	.404	.309	.300	.320	.318	.299	.285	.324	.309
Chuck roast.....	do.....	.346	.347	.270	.256	.262	.265	.256	.240	.291	.286
Plate beef.....	do.....	.224	.224	.199	.181	.217	.220	.223	.208	.241	.236
Pork chops.....	do.....	.411	.431	.390	.407	.400	.407	.372	.416	.355	.393
Bacon, sliced.....	do.....	.537	.565	.580	.605	.546	.563	.484	.509	.504	.531
Ham, sliced.....	do.....	.527	.565	.530	.545	.473	.480	.491	.509	.489	.502
Lard.....	do.....	.317	.326	.334	.331	.329	.335	.299	.311	.315	.332
Lamb.....	do.....	.412	.383	.371	.358	.392	.381	.360	.326	.360	.360
Hens.....	do.....	.424	.432	.376	.388	.416	.430	.378	.386	.344	.340
Salmon, canned.....	do.....	.355	.357	.330	.344	.292	.292	.269	.275	.296	.315
Eggs.....	Dozen.....	.625	.694	.590	.706	.461	.513	.427	.435	.431	.442
Butter.....	Pound.....	.512	.517	.521	.579	.539	.546	.511	.518	.512	.534
Cheese.....	do.....	.338	.344	.354	.354	.326	.338	.345	.359	.329	.335
Milk.....	Quart.....	.130	.140	.150	.150	.185	.190	.130	.130	.120	.130
Bread.....	Pound ¹.....	.100	.100	.125	.125	.100	.100	.095	.095	.097	.097
Flour.....	do.....	.069	.069	.068	.069	.070	.071	.064	.067	.071	.072
Corn meal.....	do.....	.083	.082	.085	.086	.058	.062	.060	.060	.063	.065
Rice.....	do.....	.133	.138	.140	.143	.106	.112	.127	.137	.133	.143
Potatoes.....	do.....	.046	.040	.033	.042	.034	.043	.033	.030	.049	.042
Onions.....	do.....	.060	.072	.051	.048	.058	.061	.042	.041	.066	.058
Beans, navy.....	do.....	.177	.176	.177	.178	.194	.193	.156	.156	.167	.167
Prunes.....	do.....	.177	.175	.169	.169	.171	.177	.159	.155	.171	.172
Raisins, seeded.....	do.....	.154	.155	.152	.152	.155	.159	.152	.157	.151	.149
Sugar.....	do.....	.094	.094	.100	.100	.089	.089	.091	.093	.093	.095
Coffee.....	do.....	.317	.316	.427	.425	.276	.281	.276	.266	.286	.279
Tea.....	do.....	.659	.653	.779	.792	.657	.675	.659	.650	.805	.814

¹ Baked weight.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR JULY 15, 1918,
AND AUGUST 15, 1918, FOR 31 CITIES—Continued.

Article.	Unit.	Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.	
		July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.
Sirloin steak.....	Pound..	\$0.386	\$0.376	\$0.592	\$0.589	\$0.357	\$0.347	\$0.381	\$0.386	\$0.399	\$0.409
Round steak.....	do.....	.376	.365	.506	.510	.358	.347	.374	.376	.391	.390
Rib roast.....	do.....	.332	.323	.392	.384	.300	.289	.287	.286	.315	.325
Chuck roast.....	do.....	.293	.285	.334	.326	.254	.249	.274	.271	.271	.276
Plate beef.....	do.....	.245	.235			.218	.215	.218	.217	.201	.208
Pork chops.....	do.....	.372	.378	.412	.438	.369	.394	.362	.405	.392	.396
Bacon, sliced.....	do.....	.530	.583	.483	.496	.546	.565	.503	.523	.530	.553
Ham, sliced.....	do.....	.503	.505	.477	.487	.473	.480	.482	.504	.466	.483
Lard.....	do.....	.330	.338	.314	.319	.310	.314	.311	.314	.329	.333
Lamb.....	do.....	.390	.420	.379	.378	.358	.360			.379	.373
Hens.....	do.....	.308	.317	.412	.421	.340	.350	.310	.330	.351	.355
Salmon, canned.....	do.....	.299	.287	.274	.279	.298	.302	.249	.251	.293	.288
Eggs.....	Dozen.....	.397	.445	.602	.667	.414	.483	.432	.439	.512	.544
Butter.....	Pound.....	.502	.505	.506	.518	.504	.522	.505	.517	.554	.557
Cheese.....	do.....	.331	.347	.333	.330	.325	.339	.358	.359	.345	.352
Milk.....	Quart.....	.168	.170	.130	.150	.157	.162	.110	.110	.153	.153
Bread.....	Pound ¹.....	.100	.100	.100	.100	.090	.090	.100	.100	.100	.100
Flour.....	do.....	.066	.066	.072	.072	.074	.072	.065	.065	.069	.071
Corn meal.....	do.....	.066	.066	.083	.083	.083	.084	.062	.063	.062	.063
Rice.....	do.....	.120	.124	.121	.125	.124	.125	.132	.133	.125	.133
Potatoes.....	do.....	.042	.049	.044	.035	.052	.048	.043	.039	.031	.043
Onions.....	do.....	.050	.056	.066	.065	.047	.052	.053	.052	.063	.066
Beans, navy.....	do.....	.181	.179	.177	.175	.167	.171	.174	.171	.197	.195
Prunes.....	do.....	.161	.172	.171	.175	.162	.160	.175	.178	.171	.171
Raisins, seeded.....	do.....	.150	.154	.158	.158	.163	.172	.173	.169	.171	.170
Sugar.....	do.....	.095	.096	.098	.098	.091	.094	.095	.096	.091	.092
Coffee.....	do.....	.332	.330	.322	.316	.283	.278	.291	.291	.322	.321
Tea.....	do.....	.796	.778	.569	.575	.619	.615	.767	.773	.736	.737
		Kansas City, Mo.		Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
Sirloin steak.....	do.....	\$0.378	\$0.375	\$0.417	\$0.407	\$0.387	\$0.377	\$0.555	\$0.555	\$0.409	\$0.402
Round steak.....	do.....	.368	.366	.388	.383	.379	.360	.512	.516	.386	.377
Rib roast.....	do.....	.289	.284	.358	.333	.315	.307	.372	.371	.321	.317
Chuck roast.....	do.....	.259	.256	.306	.277	.278	.269	.330	.325	.293	.288
Plate beef.....	do.....	.218	.213	.244	.237	.236	.227			.252	.253
Pork chops.....	do.....	.352	.384	.385	.401	.361	.377	.414	.471	.370	.398
Bacon, sliced.....	do.....	.530	.559	.569	.579	.516	.541	.489	.505	.538	.547
Ham, sliced.....	do.....	.498	.517	.517	.531	.482	.496	.457	.478	.479	.473
Lard.....	do.....	.345	.349	.334	.336	.312	.324	.331	.334	.320	.325
Lamb.....	do.....	.318	.300	.379	.397	.388	.388	.395	.391	.387	.403
Hens.....	do.....	.316	.313	.347	.353	.335	.366	.428	.435	.326	.318
Salmon, canned.....	do.....	.303	.310	.307	.314	.257	.271	.301	.301	.301	.342
Eggs.....	Dozen.....	.435	.457	.408	.543	.405	.445	.585	.623	.422	.458
Butter.....	Pound.....	.499	.521	.534	.543	.516	.539	.554	.562	.523	.533
Cheese.....	do.....	.350	.357	.359	.363	.337	.362	.339	.340	.326	.337
Milk.....	Quart.....	.133	.143	.150	.150	.128	.128	.140	.140	.150	.150
Bread.....	Pound ¹.....	.100	.100	.100	.100	.100	.100	.093	.093	.103	.099
Flour.....	do.....	.067	.067	.069	.070	.067	.067	.070	.071	.067	.067
Corn meal.....	do.....	.068	.067	.065	.066	.061	.060	.078	.077	.057	.060
Rice.....	do.....	.131	.140	.133	.134	.128	.137	.122	.126	.128	.129
Potatoes.....	do.....	.035	.031	.035	.046	.032	.032	.046	.040	.033	.038
Onions.....	do.....	.048	.055	.057	.059	.042	.043	.067	.070	.046	.047
Beans, navy.....	do.....	.185	.185	.186	.179	.171	.173	.181	.175	.189	.182
Prunes.....	do.....	.155	.171	.176	.186	.161	.166	.165	.170	.168	.165
Raisins, seeded.....	do.....	.161	.165	.150	.154	.161	.165	.154	.158	.155	.155
Sugar.....	do.....	.095	.099	.096	.095	.092	.094	.095	.094	.090	.090
Coffee.....	do.....	.282	.287	.318	.312	.269	.270	.338	.336	.302	.300
Tea.....	do.....	.708	.714	.854	.858	.716	.739	.603	.594	.789	.784

¹ Baked weight.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR JULY 15, 1918,
AND AUGUST 15, 1918, FOR 31 CITIES—Continued.

Article.	Unit.	Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.	
		July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.
Sirloin steak.....	Pound..	\$0.348	\$0.312	\$0.356	\$0.346	\$0.477	\$0.476	\$0.558	\$0.558
Round steak.....	do.....	.337	.299	.347	.339	.484	.484	.520	.522
Rib roast.....	do.....	.294	.264	.314	.311	.386	.384	.407	.397
Chuck roast.....	do.....	.259	.228	.269	.266	.344	.342	.368	.363
Plate beef.....	do.....	.206	.179	.240	.239	.255	.249	.....	.....
Pork chops.....	do.....	.348	.387	.397	.400	.416	.438	.423	.464
Bacon, sliced.....	do.....	.518	.523	.541	.544	.495	.504	.543	.570
Ham, sliced.....	do.....	.477	.464	.442	.477	1.365	1.381	.538	.559
Lard.....	do.....	.320	.325	.312	.322	.338	.335	.331	.336
Lamb.....	do.....	.321	.311	.359	.346	.400	.393	.424	.404
Hens.....	do.....	.302	.327	.392	.400	.417	.420	.432	.439
Salmon, canned.....	do.....	.350	.350	.261	.274	.331	.337	.322	.323
Eggs.....	Dozen.....	.443	.444	.483	.557	.613	.642	.653	.715
Butter.....	Pound.....	.474	.500	.543	.540	.541	.547	.533	.538
Cheese.....	do.....	.305	.314	.325	.343	.356	.358	.343	.346
Milk.....	Quart.....	.100	.110	.150	.150	.137	.140	.143	.143
Bread.....	Pound ².....	.088	.088	.114	.105	.098	.098	.100	.100
Flour.....	do.....	.063	.063	.070	.071	.072	.073	.069	.069
Corn meal.....	do.....	.057	.059	.067	.068	.081	.084	.080	.078
Rice.....	do.....	.123	.133	.123	.130	.134	.141	.127	.133
Potatoes.....	do.....	.033	.024	.026	.043	.043	.038	.047	.041
Onions.....	do.....	.053	.042	.050	.061	.067	.064	.069	.067
Beans, navy.....	do.....	.160	.159	.179	.175	.178	.178	.180	.180
Prunes.....	do.....	.152	.162	.179	.184	.175	.178	.173	.182
Raisins, seeded.....	do.....	.145	.146	.172	.193	.151	.151 ¹	.154	.155
Sugar.....	do.....	.096	.098	.090	.090	.090	.090	.098	.099
Coffee.....	do.....	.311	.311	.281	.274	.301	.299	.329	.329
Tea.....	do.....	.503	.518	.627	.604	.571	.581	.641	.611
		Norfolk, Va.		Omaha, Nebr.		Peoria, Ill.		Portland, Me.	
Sirloin steak.....	do.....	\$0.506	\$0.501	\$0.415	\$0.380	\$0.375	\$0.367	\$0.605	\$0.579
Round steak.....	do.....	.463	.453	.415	.368	.370	.364	.514	.511
Rib roast.....	do.....	.397	.383	.309	.296	.279	.270	.357	.347
Chuck roast.....	do.....	.341	.317	.291	.270	.263	.253	.325	.306
Plate beef.....	do.....	.243	.220	.199	.190	.208	.199	.....	.....
Pork chops.....	do.....	.398	.414	.355	.382	.368	.393	.411	.453
Bacon, sliced.....	do.....	.521	.547	.529	.546	.525	.537	.492	.521
Ham, sliced.....	do.....	.401	.418	.503	.515	.493	.510	.474	.500
Lard.....	do.....	.344	.343	.341	.344	.334	.342	.334	.335
Lamb.....	do.....	.423	.433	.348	.343	.417	.383	.388	.405
Hens.....	do.....	.423	.428	.325	.326	.327	.332	.418	.447
Salmon, canned.....	do.....	.274	.284	.291	.297	.292	.299	.287	.286
Eggs.....	Dozen.....	.489	.525	.411	.444	.409	.441	.575	.654
Butter.....	Pound.....	.567	.577	.496	.505	.487	.495	.555	.558
Cheese.....	do.....	.353	.353	.336	.346	.346	.375	.348	.351
Milk.....	Quart.....	.180	.180	.125	.133	.103	.104	.128	.128
Bread.....	Pound ².....	.099	.099	.100	.100	.100	.100	.100	.100
Flour.....	do.....	.071	.072	.064	.065	.070	.072	.068	.068
Corn meal.....	do.....	.063	.064	.062	.061	.063	.066	.072	.072
Rice.....	do.....	.140	.145	.130	.135	.128	.137	.124	.125
Potatoes.....	do.....	.042	.043	.042	.037	.033	.030	.044	.040
Onions.....	do.....	.061	.065	.049	.054	.058	.056	.059	.066
Beans, navy.....	do.....	.186	.183	.172	.167	.181	.182	.179	.179
Prunes.....	do.....	.181	.186	.166	.168	.177	.173	.155	.161
Raisins, seeded.....	do.....	.149	.154	.165	.167	.149	.157	.142	.146
Sugar.....	do.....	.090	.092	.096	.098	.095	.096	.090	.091
Coffee.....	do.....	.316	.325	.316	.311	.267	.270	.308	.311
Tea.....	do.....	.793	.783	.653	.664	.631	.650	.630	.633

¹ Whole.² Baked weight.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR JULY 15, 1918,
AND AUGUST 15, 1918, FOR 31 CITIES—Concluded.

Article.	Unit.	Portland, Oreg.		Providence, R. I.		Richmond, Va.		Rochester, N. Y.	
		July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.	July 15, 1918.	Aug. 15, 1918.
Sirloin steak.....	Pound..	\$0.340	\$0.326	\$0.659	\$0.661	\$0.447	\$0.437	\$0.406	\$0.408
Round steak.....	do.....	.329	.319	.550	.552	.421	.413	.386	.391
Rib roast.....	do.....	.296	.289	.428	.422	.358	.365	.325	.321
Chuck roast.....	do.....	.248	.232	.395	.397	.324	.321	.321	.310
Plate beef.....	do.....	.192	.183	.....	.....	.262	.259	.237	.231
Pork chops.....	do.....	.399	.429	.438	.488	.386	.395	.401	.437
Bacon, sliced.....	do.....	.550	.569	.492	.518	.489	.528	.465	.454
Ham, sliced.....	do.....	.494	.500	.557	.581	.440	.463	.454	.493
Lard.....	do.....	.350	.350	.335	.341	.339	.339	.330	.334
Lamb.....	do.....	.329	.336	.420	.399	.413	.425	.371	.373
Hens.....	do.....	.350	.346	.439	.443	.408	.404	.413	.426
Salmon, canned.....	do.....	.350	.360	.291	.296	.238	.235	.296	.298
Eggs.....	Dozen.....	.490	.559	.606	.658	.472	.515	.536	.581
Butter.....	Pound.....	.553	.597	.532	.539	.558	.565	.516	.519
Cheese.....	do.....	.335	.350	.339	.341	.347	.351	.326	.334
Milk.....	Quart.....	.136	.138	.144	.150	.145	.147	.125	.128
Bread.....	Pound ¹.....	.110	.110	.100	.100	.100	.100	.098	.099
Flour.....	do.....	.062	.065	.069	.069	.066	.068	.067	.067
Corn meal.....	do.....	.076	.077	.070	.071	.061	.063	.065	.066
Rice.....	do.....	.141	.142	.122	.126	.139	.143	.134	.137
Potatoes.....	do.....	.028	.041	.045	.040	.048	.041	.046	.038
Onions.....	do.....	.040	.046	.065	.066	.069	.068	.059	.061
Beans, navy.....	do.....	.165	.163	.179	.177	.191	.192	.174	.161
Prunes.....	do.....	.138	.143	.179	.179	.162	.172	.187	.191
Raisins, seeded.....	do.....	.146	.148	.148	.148	.149	.150	.149	.148
Sugar.....	do.....	.096	.095	.094	.095	.093	.093	.090	.091
Coffee.....	do.....	.327	.325	.339	.339	.283	.279	.289	.291
Tea.....	do.....	.573	.597	.584	.609	.743	.740	.575	.569
		St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
Sirloin steak.....	do.....	\$0.381	\$0.365	\$0.350	\$0.342	\$0.477	\$0.476	\$0.402	\$0.378
Round steak.....	do.....	.358	.342	.330	.325	.446	.444	.398	.381
Rib roast.....	do.....	.323	.296	.288	.284	.377	.376	.313	.292
Chuck roast.....	do.....	.281	.252	.265	.264	.344	.342	.282	.274
Plate beef.....	do.....	.204	.189	.208	.198	.242	.229	.233	.221
Pork chops.....	do.....	.354	.401	.389	.458	.406	.426	.358	.397
Bacon, sliced.....	do.....	.507	.525	.533	.550	.544	.567	.525	.514
Ham, sliced.....	do.....	.473	.488	.481	.483	.501	.518	.477	.477
Lard.....	do.....	.319	.331	.351	.352	.322	.330	.343	.334
Lamb.....	do.....	.332	.335	.328	.330	.423	.406	.367	.379
Hens.....	do.....	.308	.324	.360	.350	.436	.442	.291	.320
Salmon, canned.....	do.....	.297	.301	.320	.328	.305	.308	.278	.281
Eggs.....	Dozen.....	.438	.452	.492	.515	.486	.542	.408	.456
Butter.....	Pound.....	.481	.493	.539	.549	.515	.528	.519	.538
Cheese.....	do.....	.311	.325	.329	.339	.318	.321	.344	.357
Milk.....	Quart.....	.100	.107	.114	.112	.120	.130	.125	.125
Bread.....	Pound ¹.....	.085	.085	.100	.103	.100	.097	.100	.100
Flour.....	do.....	.065	.067	.057	.060	.070	.070	.067	.068
Corn meal.....	do.....	.063	.064	.074	.075	.077	.079	.075	.076
Rice.....	do.....	.134	.136	.127	.135	.129	.132	.132	.139
Potatoes.....	do.....	.029	.021	.034	.024	.046	.041	.039	.038
Onions.....	do.....	.044	.044	.052	.045	.059	.061	.051	.047
Beans, navy.....	do.....	.176	.175	.172	.171	.176	.174	.181	.180
Prunes.....	do.....	.166	.176	.152	.150	.160	.160	.170	.181
Raisins, seeded.....	do.....	.145	.147	.142	.145	.145	.146	.180	.174
Sugar.....	do.....	.099	.100	.097	.098	.090	.095	.098	.098
Coffee.....	do.....	.314	.312	.350	.346	.320	.327	.302	.298
Tea.....	do.....	.587	.562	.609	.624	.610	.614	.725	.738

¹ Baked weight.

The following table shows the average retail prices of coal on January 15 and July 15 of each year, 1913 to 1918, inclusive, by cities. The prices are those quoted for retail trade for household use. The table gives prices for Pennsylvania anthracite white-ash coal, both in stove size and in chestnut size, and an average price for each city of the several kinds of bituminous coal. The coal dealers in each city were asked to quote prices on the kind of bituminous coal usually sold for household use. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling was necessary.

Prices are shown for coal only in the cities in which prices are scheduled for food and begin in each city with the year that prices were secured for food. In July, 1917, prices for coal were not secured by the bureau.

RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1918, INCLUSIVE, BY CITIES.

City.	1913		1914		1915		1916		1917	1918	
	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	Jan.	July.
Atlanta, Ga.: Bituminous.....	\$5.875	\$4.833	\$5.295	\$5.083	\$5.250	\$4.575	\$5.050	\$4.500	\$7.000	\$7.444	\$7.773
Baltimore, Md.: Anthracite— Stove.....	17.700	17.240	17.700	17.280	17.620	17.138	17.650	17.800	18.160	19.600	10.450
Chestnut.....	17.930	17.490	17.950	17.520	17.870	17.363	17.880	17.950	18.310	19.750	10.550
Birmingham, Ala.: Bituminous.....	4.217	4.011	4.228	3.833	4.090	3.646	3.913	3.644	5.080	5.616	6.461
Boston, Mass.: Anthracite— Stove.....	8.250	7.500	8.000	7.500	7.750	7.500	8.000	8.000	9.500	9.850	10.250
Chestnut.....	8.250	7.750	8.250	7.750	8.000	7.750	8.250	8.000	9.500	9.850	10.250
Bridgeport, Conn.: Anthracite— Stove.....									10.000	10.500	10.400
Chestnut.....									10.000	10.500	10.400
Buffalo, N. Y.: Anthracite— Stove.....	6.750	6.542	6.817	6.650	6.850	6.650	6.850	7.010	7.600	8.830	9.130
Chestnut.....	6.992	6.800	7.067	6.900	7.100	6.900	7.100	7.260	7.850	8.830	9.240
Butte, Mont.: Bituminous.....					7.417	6.750	7.125	7.125	8.222	9.188	9.083
Charleston, S. C.: Anthracite— Stove.....	18.375	17.750	17.750	17.750	17.750	17.750	17.750	17.875	18.750	12.275	.....
Chestnut.....	18.500	18.000	18.250	18.250	18.250	18.250	18.250	18.375	19.250	12.475	.....
Bituminous.....	16.750	16.750	16.750	16.750	16.750	16.750	16.750	16.750	7.000	8.000	8.375
Chicago, Ill.: Anthracite— Stove.....	8.000	7.800	8.080	7.900	8.100	7.900	8.100	8.240	9.570	10.350	10.900
Chestnut.....	8.250	8.050	8.330	8.130	8.350	8.150	8.350	8.490	9.670	10.388	10.975
Bituminous.....	4.969	4.650	5.000	4.850	5.068	4.708	4.938	4.800	7.083	6.671	6.475
Cincinnati, Ohio: Anthracite— Stove.....	8.250	7.500	8.000	7.917	7.917	7.667	8.000	7.875	10.000	9.500	11.660
Chestnut.....	8.750	7.750	8.250	8.167	8.167	7.833	8.083	8.125	10.125	9.500	.....
Bituminous.....	3.500	3.375	3.750	3.500	3.500	3.500	3.688	3.500	5.500	6.098	6.725
Cleveland, Ohio: Anthracite— Stove.....	7.500	7.250	7.500	7.500	7.650	7.400	7.650	7.850	9.688	9.825	.....
Chestnut.....	7.750	7.500	7.750	7.750	7.900	7.650	7.900	8.100	10.000	9.575	.....
Bituminous.....	4.143	4.143	4.400	4.571	4.643	4.607	4.643	4.946	8.227	6.901	6.443
Columbus, Ohio: Bituminous.....								3.640	6.400	5.943	6.179
Dallas, Tex.: Bituminous.....	8.250	7.214	7.929	7.150	7.545	6.950	7.458	7.208	10.167	10.139	10.386
Denver, Colo.: Bituminous.....	5.250	4.875	6.474	5.300	5.641	5.192	5.250	5.019	6.000	7.598	7.999

¹ Per ton of 2,240 pounds.

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RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1918, INCLUSIVE, BY CITIES—Continued.

City.	1913		1914		1915		1916		1917		1918	
	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	Jan.	July.	
Detroit, Mich.												
Anthracite—												
Stove.....	\$8.000	\$7.450	\$8.000	\$7.500	\$7.938	\$7.500	\$7.950	\$8.000	\$9.750	\$9.880	\$10.150	
Chestnut.....	8.250	7.650	8.250	7.750	8.188	7.750	8.200	8.250	9.800	10.080	10.520	
Bituminous.....	5.200	5.200	5.200	5.188	5.179	5.237	5.237	5.611	7.583	8.267	8.180	
Fall River, Mass.												
Anthracite—												
Stove.....	8.250	7.425	7.750	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.00	
Chestnut.....	8.250	7.613	8.000	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.00	
Bituminous.....											10.000	
Houston, Tex.												
Anthracite—												
Chestnut.....										15.750		
Bituminous.....										9.000		
Indianapolis, Ind.												
Anthracite—												
Stove.....	8.950	8.000	8.300	7.750	8.250	7.650	8.250	8.500	10.167	9.825	10.250	
Chestnut.....	9.150	8.250	8.500	7.950	8.450	7.900	8.450	8.688	10.333	9.925	10.500	
Bituminous.....	3.813	3.700	4.611	4.000	4.673	4.208	4.518	4.568	6.800	7.107	6.163	
Jacksonville, Fla.												
Anthracite—												
Stove.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000		
Chestnut.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000		
Bituminous.....	7.500	7.000	7.125	6.875	7.500	7.000	7.500	7.375	8.000	9.333	9.825	
Kansas City, Mo.												
Bituminous.....	4.391	3.935	4.276	4.093	4.200	4.056	4.515	4.353	6.438	6.703	6.700	
Little Rock, Ark.												
Bituminous.....	6.000	5.333	6.250	5.833	5.972	5.361	6.000	5.750	8.000	8.250	9.155	
Los Angeles, Cal.												
Bituminous.....		12.500	13.500	12.000	13.600	11.375	13.700	12.900	15.000	14.881	14.700	
Louisville, Ky.												
Anthracite—												
Stove.....	9.000	8.250	8.750	8.450	8.700							
Chestnut.....	9.000	8.250	8.750	8.450							10.640	
Bituminous.....	4.200	4.000	4.377	3.953	3.997	3.478	3.816	3.737	5.734	6.038	6.783	
Manchester, N. H.												
Anthracite—												
Stove.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	
Chestnut.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	
Bituminous.....											10.000	
Memphis, Tenn.												
Bituminous.....	14.344	14.219	14.219	14.219	13.883	13.833	13.904	14.083	16.222	6.539	7.171	
Milwaukee, Wis.												
Anthracite—												
Stove.....	8.000	7.850	8.080	7.930	8.100	7.900	8.100	8.300	9.020	9.500	10.968	
Chestnut.....	8.250	8.100	8.330	8.180	8.350	8.150	8.350	8.550	9.270	9.650	10.904	
Bituminous.....	6.250	5.714	6.143	5.714	6.143	5.625	6.000	5.875	7.743	8.500	7.385	
Minneapolis, Minn.												
Anthracite—												
Stove.....	9.250	9.050	9.350	9.133	9.307	9.150	9.350	9.900	10.350	10.826	12.238	
Chestnut.....	9.500	9.300	9.600	9.383	9.557	9.400	9.600	10.150	10.600	10.926	12.323	
Bituminous.....	5.889	5.792	5.875	5.846	5.990	5.960	5.977	6.375	8.077	8.888	8.474	
Mobile, Ala.												
Anthracite—												
Stove.....										14.000		
Chestnut.....										14.000		
Bituminous.....										8.000	9.000	
Newark, N. J.												
Anthracite—												
Stove.....	6.500	6.250	6.500	6.250	6.500	6.250	6.500	6.750	7.208	8.100	8.500	
Chestnut.....	6.750	6.500	6.750	6.500	6.750	6.500	6.750	7.000	7.292	8.100	8.500	
New Haven, Conn.												
Anthracite—												
Stove.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	
Chestnut.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	
New Orleans, La.												
Anthracite—												
Stove.....	10.000	10.000	10.000	10.000	10.000	10.125	10.500	11.700	13.100	13.067		
Chestnut.....	10.500	10.500	10.500	10.500	10.500	10.625	11.000	12.200	13.500	13.300	14.550	
Bituminous.....	16.056	16.063	15.944	16.071	15.950	16.083	16.091	16.063	16.944	8.040	7.789	
New York, N. Y.												
Anthracite—												
Stove.....	7.071	6.657	6.857	6.850	7.143	6.907	7.107	7.393	8.500	9.058	9.300	
Chestnut.....	7.143	6.800	7.000	6.993	7.286	7.057	7.250	7.421	8.500	9.083	9.293	

¹ Price per 10-barrel lots (1,800 pounds).

RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1918, INCLUSIVE, BY CITIES—Concluded.

City.	1913		1914		1915		1916		1917	1918	
	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	July.	Jan.	Jan.	July.
Norfolk, Va.:											
Anthracite—											
Stove.....										\$10.000	\$9.500
Chestnut.....										10.000	9.500
Bituminous.....										7.750	7.750
Omaha, Nebr.:											
Anthracite—											
Stove.....	\$12.000	\$10.750	\$10.700	\$10.700	\$10.750	\$10.700	\$10.750	\$11.750	\$13.200	13.188	.....
Chestnut.....	12.000	11.000	10.950	10.950	11.000	10.950	11.000	12.000	13.400	13.338	.....
Bituminous.....	6.625	6.125	6.125	6.125	6.083	6.167	6.042	6.000	7.857	7.950	7.388
Peoria, Ill.:											
Anthracite—											
Stove.....										10.250	11.000
Chestnut.....										10.500	11.025
Bituminous.....										5.500	.....
Philadelphia, Pa.:											
Anthracite—											
Stove.....	17.156	16.894	17.281	17.050	17.250	17.013	17.250	17.494	17.969	19.594	19.806
Chestnut.....	17.375	17.144	17.531	17.300	17.500	17.263	17.500	17.744	18.188	19.681	19.888
Pittsburgh, Pa.:											
Anthracite—											
Stove.....	17.938	17.375	17.713	17.550	17.875	17.567	17.967	18.000	110.500	.....	11.000
Chestnut.....	18.000	17.438	17.775	17.550	17.933	17.567	18.017	18.100	110.850	110.150	11.050
Bituminous.....	23.158	23.176	23.188	23.158	23.225	23.225	23.326	23.450	24.857	25.278	5.656
Portland, Me.:											
Anthracite—											
Stove.....										10.890	11.040
Chestnut.....										10.890	11.040
Bituminous.....										10.453	10.890
Portland, Oreg.:											
Bituminous.....	9.786	9.656	9.625	9.279	9.382	9.224	9.438	9.263	10.276	10.181	10.442
Providence, R. I.:											
Anthracite—											
Stove.....	8.250	7.500	7.750	7.450	7.750	7.500	8.750	8.500	10.000	10.500	11.375
Chestnut.....	8.250	7.750	8.000	7.700	8.000	7.750	9.000	8.500	10.000	10.500	11.375
Richmond, Va.:											
Anthracite—											
Stove.....	8.000	7.250	7.750	7.542	8.000	7.500	7.900	8.000	9.450	9.500	9.900
Chestnut.....	8.000	7.250	7.750	7.542	8.000	7.500	7.900	8.000	9.450	9.500	9.900
Bituminous.....	5.500	4.944	5.423	5.042	5.444	5.023	5.364	5.063	7.268	7.686	7.811
Rochester, N. Y.:											
Anthracite—											
Stove.....								7.200	7.750	8.550	9.050
Chestnut.....								7.450	7.900	8.650	9.150
St. Louis, Mo.:											
Anthracite—											
Stove.....	8.438	7.740	8.150	8.175	8.333	8.033	8.583	8.500	9.813	10.433	11.000
Chestnut.....	8.680	7.990	8.350	8.363	8.500	8.200	8.750	8.750	10.500	10.533	11.250
Bituminous.....	3.360	3.037	3.288	3.056	3.214	3.050	3.179	3.073	4.615	5.444	5.893
St. Paul, Minn.:											
Anthracite—											
Stove.....		9.050	9.333	9.183	9.350	9.150	9.350	9.883	10.350	10.727	12.248
Chestnut.....		9.300	9.583	9.433	9.600	9.400	9.600	10.133	10.600	10.827	12.417
Bituminous.....		6.041	6.121	6.089	6.167	6.153	6.203	6.610	8.318	9.162	9.148
Salt Lake City, Utah:											
Bituminous.....	5.639	5.548	5.580	5.552	5.462	5.462	5.464	5.464	5.658	7.250	7.303
San Francisco, Cal.:											
Bituminous.....	12.000	12.000	12.091	12.400	12.273	12.333	12.250	12.250	13.429	13.867	14.083
Scranton, Pa.:											
Anthracite—											
Stove.....	4.250	4.313	4.500	4.313	4.438	4.125	4.375	4.800	5.250	6.113	6.050
Chestnut.....	4.500	4.563	4.750	4.563	4.688	4.313	4.625	4.800	5.250	6.150	6.150
Seattle, Wash.:											
Bituminous.....	27.125	27.200	26.167	25.800	25.906	25.313	25.528	25.750	25.850	27.867	29.133
Springfield, Ill.:											
Bituminous.....				2.646	2.078	2.094	2.563	2.750	2.706	3.711	3.661
Washington, D. C.:											
Anthracite—											
Stove.....	17.500	17.381	17.588	17.419	17.731	17.400	17.625	17.725	18.206	110.000	19.960
Chestnut.....	17.650	17.531	17.738	17.569	17.881	17.550	17.775	17.856	18.200	110.190	110.064
Bituminous.....											17.700

¹ Per ton of 2,240 pounds.

² Per 25-bushel lots (1,900 pounds).

³ Prices quoted at yard; delivery charges 50 cents to \$2 per ton, according to distance.

⁴ Prices in zone A. Prices in other zones range from \$0.25 to \$1.25 additional.

⁵ Prices in zone A. Prices in other zones range from \$0.35 to \$1.30 additional.

[1940]

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

Continuing information published in preceding issues of the MONTHLY LABOR REVIEW,¹ index numbers showing wholesale price changes since 1913 are contained in the subjoined table. 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 of many important articles has been unprecedented, although fuel and lighting show a sharp drop in the last half of 1917.

During the first eight months of 1918 prices as a whole have continued to advance steadily. The increase from June to July, and again from July to August, has been noticeably large. The bureau's weighted index number for August stood at 203, as compared with 198 for July, 193 for June, 185 for July, 1917, and 100 as the average for the 12 months of 1913. Considerable increases in price from July to August of the present year are shown by the index numbers for each of the groups of commodities designated as farm products, food, etc., chemicals and drugs, and house-furnishing goods, respectively. Somewhat smaller increases were recorded for cloths and clothing and lumber and building materials. The groups of fuel and lighting and metals and metal products show no change in price, while the group of miscellaneous articles show a slight decrease.

Among important commodities whose wholesale prices in August averaged higher than in July were cotton, corn, hay, hogs, tobacco, cattle, sheep, butter, cheese, eggs, milk, lard, ham, and potatoes. Wheat, hides, poultry, coffee, tea, sugar, salt, bacon, beef, and mutton were practically unchanged in price, while barley, oats, rye, rice, flaxseed, peanuts, corn meal, and wheat flour were cheaper than in July.

In the period from August, 1917, to August, 1918, the index number of farm products increased from 204 to 229, that of food articles from 180 to 192, and that of cloths and clothing from 193 to 251. In the same period the index number of fuel and lighting increased from 159 to 178, that of lumber and building materials from 133 to 156, that of chemicals and drugs from 198 to 207, and that of miscellaneous articles from 156 to 191. The index number for house-furnishing goods, which is built on a small number of tableware articles only, increased from 165 to 227. In the group of metals and metal products the index number decreased from 249 in August, 1917, to 183 in August of the present year.

¹Formerly the MONTHLY REVIEW; the name was changed with the July (1918) issue.

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

[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	108	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	86	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	128	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	123	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	154	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	180	182	169	178	208	114	155	151	144	171
May	196	191	173	187	217	117	164	151	148	181
June	196	187	179	193	239	127	165	162	153	184
July	198	180	187	183	257	132	185	165	151	185
August	204	180	193	159	249	133	198	165	156	184
September	203	178	193	155	228	134	203	165	155	182
October	207	183	194	142	182	134	242	165	164	180
November	211	184	202	151	173	135	232	175	165	182
December	204	185	206	153	173	135	230	175	166	181
1918.										
January	205	188	209	169	173	136	216	188	178	185
February	207	186	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	193	191
May	212	178	234	172	177	147	209	188	197	191
June	214	179	243	171	177	148	205	192	199	193
July	221	185	249	178	183	152	202	192	192	198
August ¹	229	192	251	178	183	156	207	227	191	203

¹ Preliminary.

[1942]

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

Exact comparison of wholesale with retail prices is not attempted in the table which follows. Some food products—fresh meats, for example—are not sold by the retailer in the same form in which they leave the wholesaler, hence strictly comparable wholesale and retail prices are not obtainable. In such cases the articles most nearly comparable were selected. It was found impracticable also to obtain both wholesale and retail prices for the same date. The retail prices shown are in all cases those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days prior to the 15th. In each case the wholesale price is the mean of the high and the low quotation on the date selected, as published in leading trade journals, while the retail price is the average of all prices for the article and city in question reported directly to the bureau by retailers. The figures in the tables are therefore to be considered as merely indicative of price variations in the retail as compared with wholesale markets.

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 the margin of profit to the retailer, since, in addition to the difference between the wholesale and the retail prices pointed out above, the cost of handling the commodity is included in the figure.

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

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

Article and city.	Unit.	1913: Av- erage for year.	July—			1917				1918			
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.
Beef, Chicago:			<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Steer loin ends.....W.	Lb.	16.8	17.5	16.0	20.5	20.0	20.0	19.0	23.5	20.0	23.0	34.0	34.0
Sirloin steak.....R.	Lb.	23.2	26.0	25.8	28.1	26.5	29.3	30.2	30.6	30.2	33.7	37.7	37.7
Price differential.....		6.4	8.5	9.8	7.6	6.5	9.3	11.2	7.1	10.2	10.7	3.7	3.7
Beef, Chicago:													
Steer rounds, No. 2.....W.	Lb.	13.1	14.5	14.3	14.5	12.0	15.5	17.0	19.0	16.5	18.5	25.0	26.0
Round steak.....R.	Lb.	20.2	23.3	22.8	24.1	22.7	25.6	26.6	27.3	27.3	30.4	35.0	34.9
Price differential.....		7.1	8.8	8.5	9.6	10.7	10.1	9.6	8.3	10.8	11.9	10.0	8.9
Beef, Chicago:													
Steer ribs, No. 2.....W.	Lb.	15.7	16.5	14.5	17.5	16.0	21.0	20.0	23.0	20.0	22.0	28.0	30.0
Rib roast.....R.	Lb.	19.5	21.2	21.3	22.9	22.3	24.1	24.6	24.7	25.4	28.8	31.8	31.4
Price differential.....		3.8	4.7	6.8	5.4	6.3	3.1	4.6	1.7	5.4	6.8	3.8	1.4
Beef, New York:													
No. 2, loins.....W.	Lb.	15.8	18.3	17.0	20.0	18.0	19.0	19.0	27.5	23.5	26.0	28.0	32.0
Sirloin steak.....R.	Lb.	25.9	27.4	28.2	29.4	28.4	31.8	33.7	35.6	34.4	38.0	43.9	44.8
Price differential.....		10.1	9.1	11.2	9.4	10.4	12.8	14.7	8.1	10.9	12.0	15.9	12.8
Beef, New York:													
No. 2, rounds.....W.	Lb.	12.1	13.5	13.5	14.5	13.0	17.0	17.5	19.0	18.0	20.0	28.0	29.0
Round steak.....R.	Lb.	24.9	27.0	27.1	28.9	27.5	31.5	33.7	36.0	35.2	38.4	46.3	46.7
Price differential.....		12.8	13.5	13.6	14.4	14.5	14.5	16.2	17.0	17.2	18.4	18.3	17.7
Beef, New York:													
No. 2, ribs.....W.	Lb.	15.1	16.5	16.0	18.0	16.0	20.0	19.0	27.5	23.5	25.0	28.0	30.5
Rib roast.....R.	Lb.	21.8	22.5	22.7	24.3	23.8	27.0	27.9	29.8	29.4	32.4	37.5	37.6
Price differential.....		6.7	6.0	6.7	6.3	7.8	7.0	8.9	2.3	5.9	7.4	9.5	7.1
Pork, Chicago:													
Loins.....W.	Lb.	14.9	16.5	15.0	16.5	16.5	24.0	25.0	33.0	27.0	29.0	29.0	32.0
Chops.....R.	Lb.	19.0	20.4	20.1	21.7	22.7	28.5	29.2	35.8	31.6	33.0	35.5	38.8
Price differential.....		4.1	3.9	5.1	5.2	6.2	4.5	4.2	2.8	4.6	4.0	6.5	6.8
Pork, New York:													
Loins, western.....W.	Lb.	15.2	16.3	15.3	16.5	17.0	23.5	23.5	30.0	26.5	27.5	30.5	33.5
Chops.....R.	Lb.	21.7	23.0	21.7	23.9	24.8	31.9	32.6	39.9	34.8	36.7	40.6	42.3
Price differential.....		6.5	6.7	6.4	7.4	7.8	8.4	9.1	9.9	8.3	9.2	10.1	8.8
Bacon, Chicago:													
Short clear sides.....W.	Lb.	12.7	13.9	11.3	15.9	15.8	21.8	24.7	31.8	30.1	27.5	27.4	26.8
Sliced.....R.	Lb.	29.4	31.8	31.5	32.8	31.6	39.5	43.9	47.5	49.8	51.9	54.7	56.4
Price differential.....		16.7	17.9	20.2	16.9	15.8	17.7	19.2	15.7	19.7	24.4	27.3	29.6
Ham, Chicago:													
Smoked.....W.	Lb.	16.6	17.5	16.3	19.0	18.8	24.3	24.3	28.3	29.8	30.0	30.1	32.3
Smoked, sliced.....R.	Lb.	26.6	33.8	32.8	34.9	33.3	38.2	41.4	43.9	42.8	46.7	49.1	50.5
Price differential.....		10.0	16.3	16.5	15.9	14.5	13.9	17.1	15.6	13.0	16.7	19.0	18.2
Lard, New York:													
Prime, contract.....W.	Lb.	11.0	10.4	08.0	13.3	15.9	21.5	20.1	24.6	24.6	26.3	26.2	26.9
Pure, tub.....R.	Lb.	16.0	15.6	15.1	16.8	21.3	26.3	27.4	31.3	33.0	33.4	32.2	32.5
Price differential.....		5.0	5.2	7.1	3.5	5.4	4.8	7.3	6.7	8.4	7.1	6.0	5.6
Lamb, Chicago:													
Dressed round.....W.	Lb.	14.9	17.0	19.0	19.0	20.0	22.0	26.0	27.0	24.0	29.0	31.0	29.0
Leg of, yearling.....R.	Lb.	19.8	21.9	20.8	23.1	23.2	26.3	28.7	31.4	30.6	35.6	35.7	35.4
Price differential.....		4.9	4.9	1.8	4.1	3.2	4.3	2.7	4.4	6.6	6.6	4.7	6.4
Poultry, New York:													
Dressed fowls.....W.	Lb.	18.2	18.8	17.5	21.5	22.0	26.5	24.8	28.5	29.8	34.0	36.0	35.0
Dressed hens.....R.	Lb.	21.4	22.0	21.9	25.6	26.1	29.3	28.7	32.3	32.6	.....	41.0	40.7
Price differential.....		3.2	3.2	4.4	4.1	4.1	2.8	3.9	3.8	2.8	.....	5.0	5.7
Butter, Chicago:													
Creamery, extra.....W.	Lb.	31.0	26.5	26.5	27.5	37.0	44.0	37.5	43.5	49.0	40.0	42.5	43.5
Creamery, extra.....R.	Lb.	36.2	31.2	32.2	33.5	43.8	48.4	43.3	48.7	54.4	46.0	48.0	49.0
Price differential.....		5.2	4.7	5.7	6.0	6.8	4.4	5.7	5.2	5.4	6.0	5.5	5.5
Butter, New York:													
Creamery, extra.....W.	Lb.	32.3	28.0	27.0	28.5	39.5	45.0	39.5	44.3	51.0	41.5	44.4	45.8
Creamery, extra.....R.	Lb.	38.2	32.8	33.6	34.6	46.0	51.3	45.3	51.5	57.4	49.3	51.4	52.1
Price differential.....		5.9	4.8	6.6	6.1	6.5	6.3	5.8	7.2	6.4	7.8	7.0	6.3
Butter, San Francisco:													
Creamery, extra.....W.	Lb.	31.7	24.5	26.5	25.5	35.5	39.0	38.5	46.0	53.0	37.5	50.0	52.0
Creamery, extra.....R.	Lb.	38.8	32.9	33.8	33.3	42.5	45.2	45.5	54.5	60.2	45.2	56.6	58.6
Price differential.....		7.1	8.4	7.3	7.8	7.0	6.2	7.0	8.5	7.2	7.7	6.6	6.6
Cheese, Chicago:													
Whole milk.....W.	Lb.	14.2	13.3	14.5	14.5	21.8	22.3	21.6	24.6	23.3	21.5	22.7	24.3
Full cream.....R.	Lb.	.....	.....	22.9	24.2	32.1	32.7	33.9	36.8	37.5	35.3	34.5	35.7
Price differential.....		.....	.....	8.4	9.7	10.3	10.4	12.3	12.2	14.2	13.8	11.8	11.4
Cheese, New York:													
Whole milk, State.....W.	Lb.	15.4	14.4	14.6	15.1	22.0	24.5	23.8	25.5	23.0	22.5	23.9	25.3
Full cream.....R.	Lb.	.....	.....	22.9	22.8	30.1	33.5	32.8	34.0	34.4	33.8	33.2	33.5
Price differential.....		.....	.....	8.3	7.7	8.1	9.0	9.0	8.5	11.4	11.3	9.3	8.2

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

Article and city.	Unit.	1913: Av- erage for year.	July—			1917				1918			
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.
Cheese, San Francisco:		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Fancy.....W.	Lb.	15.9	12.5	11.5	13.5	18.0	21.5	20.0	22.0	25.5	26.0	26.0	27.5
Full cream.....R.	Lb.	20.0	22.9	24.2	29.7	29.7	31.6	33.5	33.5	32.3	33.8		
Price differential.....			8.5	9.4	6.2	8.2	9.7	9.6	8.0	7.5	6.3	6.3	
Milk, Chicago:													
Fresh.....W.	Qt.	3.8	3.6	3.7	3.6	4.5	5.4	4.7	7.4	7.0	5.8	5.3	6.6
Fresh, bottled.....R.	Qt.	8.0	8.0	8.0	8.1	10.0	10.0	10.0	12.9	11.9	11.9	12.0	12.4
Price differential.....		4.2	4.4	4.3	4.5	5.5	4.6	5.3	5.5	4.9	6.1	6.7	5.8
Milk, New York:													
Fresh.....W.	Qt.	3.5	3.0	3.0	3.1	5.1	4.9	5.0	7.2	8.1	5.9	5.4	6.3
Fresh, bottled.....R.	Qt.	9.0	9.0	9.0	9.0	10.0	10.9	11.4	13.8	15.0	14.0	12.7	14.0
Price differential.....		5.5	6.0	6.0	5.9	4.9	6.0	6.4	6.6	6.9	8.1	7.3	7.7
Milk, San Francisco:													
Fresh.....W.	Qt.	3.9	3.9	3.8	3.8	3.8	3.8	4.3	5.9	6.6	5.9	5.9	5.9
Fresh, bottled.....R.	Qt.	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.1	12.1	12.1	12.1	12.1
Price differential.....		6.1	6.1	6.2	6.2	6.2	6.2	5.7	6.2	5.5	6.2	6.2	6.2
Eggs, Chicago:													
Fresh, firsts.....W.	Doz.	22.6	18.8	16.8	21.8	48.5	30.5	31.0	37.0	56.5	31.5	36.5	38.3
Strictly fresh.....R.	Doz.	29.2	26.1	24.8	29.6	52.5	37.6	40.6	46.9	65.1	38.0	45.7	47.8
Price differential.....		6.6	7.3	8.0	7.8	4.0	7.1	9.6	9.9	8.6	6.5	9.2	9.5
Eggs, New York:													
Fresh, firsts.....W.	Doz.	24.9	21.5	20.0	24.1	50.5	33.0	35.0	40.0	64.5	33.3	40.0	41.5
Strictly fresh.....R.	Doz.	39.7	35.3	32.6	37.2	66.7	42.4	47.7	62.7	80.8	47.6	57.3	60.9
Price differential.....		14.8	13.8	12.6	13.1	16.2	9.4	12.7	22.7	16.3	14.3	17.3	19.4
Eggs, San Francisco:													
Fresh.....W.	Doz.	26.8	23.0	22.0	24.0	38.0	28.0	32.0	43.5	61.0	36.5	44.0	48.5
Strictly fresh.....R.	Doz.	37.3	33.8	31.0	33.3	48.0	37.4	39.2	60.8	71.0	41.9	51.4	57.3
Price differential.....		10.5	10.8	9.0	9.3	10.0	9.4	7.2	17.3	10.0	5.4	7.4	8.8
Meal, corn, Chicago:													
Fine.....W.	Lb.	1.4	1.6		1.9	2.4	3.6	4.5	5.2	5.1	6.0	5.4	5.3
Fine.....R.	Lb.	2.9	2.8	3.1	3.1	4.2	5.0	5.8	7.1	7.0	7.2	6.8	6.8
Price differential.....		1.5	1.2		1.2	1.8	1.4	1.3	1.9	1.9	1.2	1.4	1.5
Beans, New York:													
Medium, choice.....W.	Lb.	4.0	4.0	5.8	9.8	10.8	13.0	15.4	13.8	14.1	13.7	11.9	11.6
Navy, white.....R.	Lb.			8.1	11.3	14.9	16.2	18.8	18.5	18.5	18.2	17.5	17.4
Price differential.....				2.3	1.5	4.1	3.2	3.4	4.7	4.4	4.5	5.6	5.8
Potatoes, Chicago:													
White.....W.	Lb.	1.0	2.4	.7	1.6	2.9	4.7	4.4	1.9	2.0	1.1	1.5	2.9
White.....R.	Lb.	1.5	2.7	1.2	2.3	3.9	5.8	5.0	2.8	2.8	1.7	3.7	3.5
Price differential.....		.5	.3	.5	.7	1.0	1.0	.6	.9	.8	.6	1.2	.6
Rice, New Orleans:													
Head.....W.	Lb.	5.0	5.4	4.9	4.6	4.8	4.9	7.1	7.7	8.8	8.8	9.3	7.6
Head.....R.	Lb.			7.5	7.4	7.4	8.8	10.1	10.0	10.6	10.7	11.9	2.3
Price differential.....				2.6	2.8	2.6	3.9	3.0	2.3	1.8	1.9	2.6	4.7
Sugar, New York:													
Granulated.....W.	Lb.	4.3	4.2	5.9	7.5	6.6	8.1	7.4	8.2	7.3	7.3	7.4	7.4
Granulated.....R.	Lb.	4.9	4.6	6.3	7.9	7.4	8.7	8.4	9.7	9.7	8.8	8.8	8.8
Price differential.....		.6	.4	.4	.4	.8	.6	1.0	1.5	2.4	1.5	1.4	1.4

¹ Good to choice.

The subjoined table of wholesale and retail prices expressed as percentages of the average money prices for 1913 will enable the reader to follow more readily the trend of price fluctuations of food articles at wholesale and retail. A few articles included in the preceding table are omitted from this one, owing to lack of satisfactory data for 1913. The table shows that, as compared with base prices in 1913, the retail prices of all of the articles except sugar were relatively lower in August than were the wholesale prices. This is noticeable in the case of beef, pork, bacon, lard, lamb, milk, potatoes, and particularly corn meal, the retail price of which in August had increased 134 per cent over the average price for 1913, while the wholesale price had increased 286 per cent.

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

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

Article and city.	1913: Average for year.	July—			1917				1918			
		1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.
Beef, Chicago:												
Steer loin ends (hips).....W..	100	104	95	122	119	119	113	140	119	137	202	202
Sirloin steak.....R..	100	112	111	121	114	126	130	132	130	145	163	163
Beef, Chicago:												
Steer rounds, No. 2.....W..	100	111	109	111	92	118	130	145	126	141	191	198
Round steak.....R..	100	115	113	119	112	127	132	135	135	151	173	173
Beef, Chicago:												
Steer ribs, No. 2.....W..	100	105	92	111	102	134	127	146	127	140	178	191
Rib roast.....R..	100	109	109	117	114	124	126	127	130	148	163	161
Beef, New York:												
No. 2 loins, city.....W..	100	116	108	127	114	120	120	174	149	165	177	203
Sirloin steak.....R..	100	106	109	114	110	123	130	137	133	147	170	173
Beef, New York:												
No. 2 rounds, city.....W..	100	112	112	120	107	140	145	157	149	165	231	240
Round steak.....R..	100	108	109	116	110	127	135	145	141	154	186	188
Beef, New York:												
No. 2 ribs, city.....W..	100	109	106	119	106	132	126	182	156	166	185	202
Rib roast.....R..	100	103	104	111	109	124	128	137	135	149	172	172
Pork, Chicago:												
Loins.....W..	100	111	101	111	111	161	168	221	181	195	195	215
Chops.....R..	100	107	106	114	119	150	154	188	166	174	187	204
Pork, New York:												
Loins, western.....W..	100	107	101	109	112	155	155	197	174	181	201	220
Chops.....R..	100	106	100	110	114	147	150	184	160	169	187	195
Bacon, Chicago:												
Short clear sides.....W..	100	109	89	125	124	172	194	250	237	217	216	211
Sliced.....R..	100	108	107	112	107	134	149	162	169	177	186	192
Ham, Chicago:												
Smoked.....W..	100	105	98	114	113	146	146	170	180	181	181	195
Smoked, sliced.....R..	100	127	123	131	125	144	156	165	161	176	185	190
Lard, New York:												
Prime, contract.....W..	100	95	73	121	145	195	183	224	224	239	238	245
Pure, tub.....R..	100	98	94	105	133	164	171	196	206	209	201	203
Lamb, Chicago:												
Dressed, round.....W..	100	114	128	128	134	148	174	181	161	195	208	195
Leg of, yearling.....R..	100	111	105	117	117	133	145	159	155	180	180	179
Poultry, New York:												
Dressed fowls.....W..	100	103	96	118	121	146	136	157	164	187	198	192
Dressed hens.....R..	100	103	102	120	122	137	134	151	152	192	192	190
Butter, Chicago:												
Creamery, extra.....W..	100	85	85	89	119	142	121	140	158	129	137	140
Creamery, extra.....R..	100	86	89	93	121	134	119	135	150	127	133	135
Butter, New York:												
Creamery, extra.....W..	100	87	84	88	122	139	122	137	158	128	137	142
Creamery, extra.....R..	100	86	88	91	120	134	119	135	150	129	135	136
Butter, San Francisco:												
Creamery, extra.....W..	100	77	84	80	112	123	121	145	167	118	158	164
Creamery, extra.....R..	100	85	87	86	110	116	117	140	155	116	146	151
Milk, Chicago:												
Fresh.....W..	100	95	97	95	118	142	124	195	184	153	139	174
Fresh, bottled, delivered.....R..	100	100	100	101	125	125	125	161	149	149	150	155
Milk, New York:												
Fresh.....W..	100	86	86	89	146	140	143	206	231	169	154	180
Fresh, bottled, delivered.....R..	100	100	100	100	111	121	127	153	167	156	141	156
Milk, San Francisco:												
Fresh.....W..	100	100	97	97	97	110	151	169	151	151	151	151
Fresh, bottled.....R..	100	100	100	100	100	100	100	121	121	121	121	121
Eggs, Chicago:												
Fresh, firsts.....W..	100	83	74	96	215	135	137	164	250	139	162	169
Strictly fresh.....R..	100	89	85	101	180	129	139	161	223	130	137	164
Eggs, New York:												
Fresh, firsts.....W..	100	86	80	97	203	133	141	161	259	134	161	167
Strictly fresh.....R..	100	89	82	94	168	107	120	158	204	120	144	153
Eggs, San Francisco:												
Fresh.....W..	100	86	82	90	142	105	119	162	228	136	164	181
Strictly fresh.....R..	100	91	83	89	129	100	105	163	190	112	138	154
Meal, corn, Chicago:												
Fine.....W..	100	114	.....	136	171	257	321	371	364	429	386	379
Fine.....R..	100	97	107	107	145	172	200	245	241	248	234	234
Potatoes, Chicago:												
White, good to choice.....W..	100	237	66	160	286	458	429	185	194	106	147	279
White.....R..	100	182	78	151	263	384	331	185	187	111	245	232
Sugar, New York:												
Granulated.....W..	100	98	137	174	153	188	172	191	170	170	172	172
Granulated.....R..	100	94	129	161	151	178	171	198	198	180	180	180

[1946]

COMPARISON OF RETAIL PRICE CHANGES IN THE UNITED STATES AND FOREIGN COUNTRIES.

The index numbers of retail prices published by several foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced to a common base, viz, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers compiled by the bureau, because of the fact that in some instances satisfactory information for 1913 was not available. For Great Britain, Norway, and Sweden the index numbers are reproduced as published in the original sources, while those for Austria and Germany have been rounded off to the nearest whole number from figures published in the British Labor Gazette. All of these are shown on the July, 1914, base in the sources from which the information is taken. The index numbers here shown for the remaining countries have been obtained by dividing the index for July, 1914, as published, into the index for each month specified in the table. As indicated in the table, some of these index numbers are weighted and some are not, while the number of articles included differs widely. They should not, therefore, be considered as closely comparable one with another.

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

[Prices for July, 1914=100.]

Year and month.	United States: 22 foodstuffs; 45 cities. Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Austria: 18 foodstuffs; Vienna. Weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	France: 13 foodstuffs; cities over 10,000 population (except Paris). Weighted.	Germany: 19 foodstuffs; Berlin. Weighted.
1914						
July.....	100	100	100	100	¹ 100	100
October.....	103	99	104	108	.....	116
1915						
January.....	101	107	121	107	¹ 110	131
April.....	97	113	166	105	.....	157
July.....	98	131	179	105	¹ 123	170
October.....	101	133	217	105	.....	193
1916						
January.....	105	129	.....	112	¹ 133	189
April.....	107	131	222	112	¹ 137	220
July.....	109	130	.....	114	¹ 141	218
October.....	119	125	.....	125	¹ 146	209
1917						
January.....	125	125	272	138	¹ 154	.....
February.....	130	126	.....	141	.....	.....
March.....	130	126	.....	144	.....	.....
April.....	142	127	275	145	¹ 171	.....
May.....	148	127	288	159	.....	.....
June.....	149	127	312	160	.....	.....
July.....	143	126	337	157	¹ 184	.....
August.....	146	129	315	157	.....	.....
September.....	150	129	.....	157	.....	.....
October.....	154	129	.....	159	¹ 200	.....
November.....	152	129	.....	163	.....	.....
December.....	154	128	.....	165	.....	.....
1918						
January.....	157	129	.....	167	¹ 211	.....
February.....	158	130	.....	169	.....	.....
March.....	151	131	.....	170	.....	.....
April.....	151	169	¹ 232
May.....	155	171
June.....	159	172

¹ Quarter beginning that month.

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

Year and month.	Great Britain: 21 foodstuffs; 600 towns. Weighted.	Italy: 7 foodstuffs; 43 cities (variable). Not weighted.	Netherlands: 29 articles; 40 cities. Not weighted.	New Zealand: 59 foodstuffs; 25 towns. Weighted.	Norway: 24 (21 foods) articles; 20 towns (variable). Not weighted.	Sweden: 21 articles; 44 towns. Weighted.
1914						
July.....	100	100	¹ 100	100	100	100
October.....	112	104	² 107	102	³ 110	³ 107
1915						
January.....	118	108	114	111	³ 118	³ 113
April.....	124	113	123	113	³ 125	³ 121
July.....	132 ³	120	131	112	³ 129	³ 124
October.....	140	127	128	112	³ 134	³ 123
1916						
January.....	145	133	135	116	.....	³ 130
April.....	149	132	142	118	155	³ 134
July.....	161	132	150	119	176	³ 142
October.....	168	132	158	120	182	³ 152
1917						
January.....	187	144	165	127	.....	160
February.....	189	154	165	126	.....	166
March.....	192	161	169	126	204	170
April.....	194	164	170	127	212	175
May.....	198	167	180	128	227	175
June.....	202	171	184	128	.....	175
July.....	204	172	188	127	.....	177
August.....	202	178	.....	127	261	181
September.....	206	188	.....	129	.....	187
October.....	197	.....	.....	130	273	192
November.....	206	.....	.....	130	278	200
December.....	205	.....	.....	132	.....	212
1918						
January.....	206	190	.....	133	.....	221
February.....	208	221	.....	134	.....	227
March.....	207	.....	.....	134	293	235
April.....	206	.....	.....	137	.....	247
May.....	207	.....	.....	139	312	258
June.....	208	.....	.....	139	.....	.....

¹ January-July.² August-December.³ Quarter beginning that month.

COST OF LIVING IN SHIPBUILDING DISTRICTS.

FAMILY BUDGETS AND PRICE CHANGES IN THE GREAT LAKES DISTRICT.

In preceding issues of the MONTHLY LABOR REVIEW ¹ summary figures concerning the cost of living in various shipbuilding districts in the United States have been presented in connection with percentages showing changes in retail prices since 1914 of the articles entering into family consumption. Like figures are here given for the following districts: Chicago, Ill., Detroit, Mich., Cleveland, Ohio, Lorain, Ohio, Toledo, Ohio, Buffalo, N. Y., Superior, Wis., and Manitowoc, Wis. For Chicago, Superior, and Toledo the price figures have been brought down to August, 1918, for Lorain to May, 1918, but for the other places to March, 1918, only.

¹ MONTHLY REVIEW, March, April, June; MONTHLY LABOR REVIEW, August and September, 1918.

The study was made by the Bureau of Labor Statistics in cooperation with the Wage Adjustment Board of the Emergency Fleet Corporation. Reports showing in detail the family expenditures for the year ending March 31, 1918, were collected in each of these districts by special agents of the Bureau of Labor Statistics in personal visits to the homes of the families of workers in shipyards and of other wage earners in the same locality. The purpose of the study was to show the present cost of living and the changes in the cost of living in recent years. Retail prices for clothing, furniture and furnishings, rent, and fuel and light back to 1914 were obtained in each locality by the agents in addition to the information collected by them concerning the family cost of living for one year. Retail prices of food from 1914 to 1918 were available in the bureau's publications for Chicago, Detroit, Buffalo, and Cleveland. Food prices were not available for Superior and Manitowoc. The locality nearest to these places for which the bureau had food prices throughout the period was Milwaukee. While the prices of food might not be the same in Superior and Manitowoc as in Milwaukee, it was deemed satisfactory to use the per cent of change that took place in food prices in Milwaukee as fairly applicable to these two localities.

In like manner the per cent of changes in food prices in Cleveland were assumed for Toledo and Lorain.

The prices from 1914 to 1917 are mainly for December and for food entirely so. For a few summer articles June prices were taken, but the figures are so nearly all for December that the tables are made to speak as for that month.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN 1917 AND 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 AND AUGUST, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

CHICAGO, ILL.: 215 families.

Items of expenditure.	Expenditures per family.		Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March and August, 1918, above the prices in December, 1914.				
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	March, 1918.	August, 1918.
Clothing:							
Male.....	\$118.80	8.09	8.51	26.53	51.01	88.36	103.94
Female.....	91.90	6.26	6.15	21.22	50.03	88.70	112.26
Total.....	210.70	14.35	7.48	24.21	50.58	88.51	107.57
Furniture and furnishings.....	54.59	3.72	5.91	19.96	47.45	87.04	96.28
Food.....	615.93	41.96	2.66	25.23	53.42	48.83	69.81
Housing.....	187.65	12.78	1.08	*70	1.36	2.08	3.06
Fuel and light.....	78.16	5.33	1.93	6.64	19.34	30.82	37.41
Miscellaneous.....	320.96	21.86	3.01	19.51	41.78	49.06	64.88
All items.....	1,467.99	100.00	3.01	19.51	41.78	49.06	64.88

SUPERIOR, WIS.: 109 families.

Clothing:							
Male.....	\$110.67	8.23	0.15	7.84	32.17	50.70	61.04
Female.....	105.30	7.83	3.26	16.20	41.87	60.33	72.28
Total.....	215.97	16.06	1.67	11.92	36.90	55.39	66.52
Furniture and furnishings.....	67.47	5.01	4.57	23.65	52.83	73.26	83.85
Food.....	548.66	40.79	1.89	25.92	55.69	50.01	68.91
Housing.....	158.41	11.78	1.34	1.16	1.51	5.28	11.69
Fuel and light.....	84.05	6.25	.15	7.81	29.50	36.84	52.26
Miscellaneous.....	270.50	20.11	.13	17.70	41.70	44.92	59.63
All items.....	1,345.06	100.00	.13	17.70	41.70	44.92	59.63

TOLEDO, OHIO: 207 families.

Clothing:							
Male.....	\$105.05	7.42	1.92	12.71	33.08	54.83	70.39
Female.....	90.36	6.38	6.30	25.42	50.51	70.03	96.22
Total.....	195.41	13.80	3.94	18.59	41.14	61.86	82.33
Furniture and furnishings.....	65.71	4.64	7.84	24.59	46.44	65.60	82.48
Food.....	605.17	42.75	1.43	26.43	54.33	48.22	70.16
Housing.....	192.29	13.58	4.79	11.58	19.00	20.20	21.63
Fuel and light.....	69.56	4.02	1.74	11.03	29.80	38.43	37.97
Miscellaneous.....	287.52	20.31	2.68	21.48	44.05	46.21	62.73
All items.....	1,415.66	100.00	2.68	21.48	44.05	46.21	62.73

¹ Decrease.

² The per cent of changes in food prices in Milwaukee was used in connection with the family budget figures taken in this locality, Superior food prices not being available.

³ The per cent of increase in food prices in Cleveland has been used in this table, figures for Toledo not being available.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN 1917 AND 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.

BUFFALO, N. Y.: 204 families.

Items of expenditure.	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.....	\$101.72	7.60	9.11	31.01	59.27	89.43
Female.....	87.50	6.54	8.76	27.92	57.54	88.43
Total.....	189.22	14.14	8.95	29.58	58.47	89.02
Furniture and furnishings.....	51.21	3.83	7.05	24.13	50.15	84.58
Food.....	597.62	44.65	2.44	30.09	64.07	59.85
Housing.....	180.75	13.51	1.15	4.70	9.35	10.48
Fuel and light.....	54.79	4.09	1.30	9.30	23.46	30.61
Miscellaneous.....	264.78	19.78	3.53	24.38	51.13	56.37
All items.....	1,338.37	100.00	3.53	24.38	51.13	56.37

CLEVELAND, OHIO: 203 families.

Clothing:						
Male.....	\$113.69	7.84	1.60	17.43	42.85	67.65
Female.....	103.75	7.15	2.36	18.57	44.65	73.09
Total.....	217.44	14.99	1.96	17.97	43.71	70.24
Furniture and furnishings.....	62.89	4.34	4.72	19.67	47.84	76.83
Food.....	608.76	41.97	1.43	26.43	54.33	48.22
Housing.....	205.52	14.17	.12	.92	11.29	12.70
Fuel and light.....	56.55	3.90	.30	10.04	26.80	26.15
Miscellaneous.....	299.24	20.63	1.42	19.10	42.93	46.52
All items.....	1,450.40	100.00	1.42	19.10	42.93	46.52

DETROIT, MICH.: 256 families.

Clothing:						
Male.....	\$122.48	7.67	1.70	19.35	46.91	84.33
Female.....	106.79	6.69	3.00	18.30	46.46	85.74
Total.....	229.27	14.36	2.31	18.86	46.70	84.99
Furniture and furnishings.....	81.82	5.12	8.73	24.50	50.40	90.38
Food.....	650.25	40.73	4.05	26.51	59.69	56.42
Housing.....	232.85	14.59	2.08	17.52	32.64	37.86
Fuel and light.....	87.31	5.47	1.62	9.94	30.20	32.68
Miscellaneous.....	314.90	19.73	3.51	22.25	49.85	58.71
All items.....	1,596.40	100.00	3.51	22.25	49.85	58.71

MANITOWOC, WIS.: 111 families.

Clothing:						
Male.....	\$108.68	7.92	1.96	15.11	37.54	58.72
Female.....	94.38	6.88	.25	10.27	31.46	49.16
Total.....	203.06	14.80	1.16	12.86	34.71	54.28
Furniture and furnishings.....	46.97	3.42	3.95	14.69	40.35	64.89
Food.....	549.38	40.03	2.89	25.92	55.69	50.01
Housing.....	261.50	19.05	1.30	5.29	16.96	22.72
Fuel and light.....	78.71	5.74	.97	6.20	25.94	35.74
Miscellaneous.....	232.83	16.96	.31	17.03	40.38	44.14
All items.....	1,372.45	100.00	.31	17.03	40.38	44.14

¹ The per cent of changes in food prices in Milwaukee was used in connection with the family budget figures taken in this locality, Manitowoc food prices not being available.

² Decrease.

[1951]

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SPECIFIED SHIPBUILDING DISTRICTS IN 1917 AND 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 MAY, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

LORAIN, OHIO: 109 families.

Items of expenditure.	Expenditures per family.		Per cent of increase in retail prices in December, 1915, 1916, and 1917 and May, 1918, above the prices in December, 1914.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	May, 1918.
Clothing:						
Male.....	112.77	7.87	.49	2.76	33.17	53.86
Female.....	109.08	7.61	.14	1.78	26.90	51.91
Total.....	221.85	15.48	.32	2.28	30.09	52.90
Furniture and furnishings.....	62.12	4.33	4.89	14.00	37.71	58.40
Food ¹	600.42	41.90	1.43	26.43	54.33	53.73
Housing.....	211.74	14.78	1.06	4.49	11.90	25.84
Fuel and light.....	58.39	4.07	1.43	17.43	39.80	38.97
Miscellaneous.....	278.60	19.44	1.33	16.64	40.26	47.96
All items.....	1,433.12	100.00	1.33	16.64	40.26	47.96

¹ The per cent of increase in food prices in Cleveland, Ohio, was used in connection with the family budget figures taken in this locality, Lorain food prices not being available.

The term "Miscellaneous" in the tables includes items such as doctor bills, cleaning supplies, amusements, tobacco, etc., not included in the other expense groups specified. As the increase in the cost of many of these miscellaneous items could not well be traced through the period, it has been assumed that the percentage of increase in this group has been the same as the average increase for all other items combined. The average per cent of increase for the total of all items each year has been computed by multiplying the proportion of expenditures of each item by the per cent of increase in the retail price of the item as compared with 1914 and dividing the aggregate of the products thus obtained by 100.

PRICE CHANGES IN OTHER DISTRICTS.

In some of the localities covered earlier in the investigation and for which figures have been published in previous issues of the LABOR REVIEW inquiry has since been made as to price changes and the figures have been brought down to August, 1918. The figures for August are here presented and for convenience in comparison the figures for the earlier dates are republished.

In certain districts retail price figures were obtained earlier in the year for the month of March, but in the other districts named in the table which follows the price quotation interval is from December, 1917, to August, 1918.

Each locality shows a sharp increase in retail prices in August as compared with the preceding periods.

[1952]

PER CENT OF INCREASE IN RETAIL PRICES IN DECEMBER, 1915, 1916, AND 1917, AND MARCH AND AUGUST, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

NORFOLK, VA.: White families.

Items of expenditure.	Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March and August, 1918, above the prices in December, 1914.				
	December, 1915.	December, 1916.	December, 1917.	March, 1918.	August, 1918.
Clothing:					
Male.....	1.60	10.33	37.15	63.47	89.15
Female.....		1.68	26.02	55.36	109.12
Total.....	.80	5.98	31.55	59.39	99.19
Furniture and furnishings.....	.62	8.73	38.96	74.03	107.82
Food.....	.75	22.38	63.89	53.32	78.15
Housing.....	.07	11.72	11.72	8.32	22.00
Fuel and light.....		17.03	33.30	42.95	56.08
Miscellaneous.....	.61	14.73	45.15	48.99	74.99
All items.....	.61	14.73	45.15	48.99	74.99

BOSTON DISTRICT: White families.

Clothing:					
Male.....	6.06	20.95	45.31	74.92	108.16
Female.....	7.76	22.85	49.92	83.02	130.59
Total.....	6.63	21.86	47.53	78.82	118.96
Furniture and furnishings.....	8.40	26.31	58.37	89.97	134.17
Food.....	¹ 3.33	18.03	45.76	39.40	61.90
Housing.....	¹ .07	.06	¹ .06	.99	2.36
Fuel and light.....	1.12	10.51	29.21	39.74	45.65
Miscellaneous.....	1.57	15.72	38.13	42.95	65.24
All items.....	1.57	15.72	38.13	42.95	65.24

BALTIMORE DISTRICT: White families.

Clothing:					
Males.....	2.46	22.97	49.55	70.20	105.04
Females.....	3.03	25.09	54.75	85.15	118.29
Total.....	2.74	24.00	52.07	77.44	111.46
Furniture and furnishings.....	5.59	26.38	60.79	85.04	116.04
Food.....	¹ 4.08	20.87	64.35	60.34	83.69
Housing.....	¹ .18	.85	2.86	4.83	12.86
Fuel and light.....	.49	9.14	24.54	42.07	55.72
Miscellaneous.....	¹ 1.37	18.51	51.27	56.80	80.18
All items.....	¹ 1.37	18.51	51.27	56.80	80.18

¹ Decrease

PER CENT OF INCREASE IN RETAIL PRICES IN DECEMBER, 1915, 1916, AND 1917, AND MARCH AND AUGUST, 1918, ABOVE THE PRICES IN DECEMBER, 1914—Concluded.

BATH, ME., DISTRICT: White families.

Items of expenditure.	Per cent of increase in retail prices in December, 1915, 1916, and 1917, and March and August, 1918, above the prices in December, 1914.				
	December, 1915.	December, 1916.	December, 1917.	March, 1918.	August, 1918.
Clothing:					
Male.....	0.47	5.47	31.54	47.67	71.59
Female.....	2.76	8.50	27.11	61.98	101.95
Total.....	1.65	7.03	29.26	55.02	87.19
Furniture and furnishings.....	3.03	11.92	39.30	68.07	98.24
Food ¹	² 1.96	18.59	49.83	47.28	68.26
Housing.....	² 1.10	1.43	13.82	26.33	34.47
Fuel and light.....		14.43	34.92	42.30	47.98
Miscellaneous.....	² .59	13.55	39.68	47.09	68.02
All items.....	² .59	13.55	39.68	47.09	68.02

PORTLAND, ME., DISTRICT: White families.

Clothing:					
Male.....	1.09	8.98	31.45	51.30	80.04
Female.....	3.21	10.48	34.15	55.67	91.30
Total.....	2.13	9.72	32.78	53.45	85.59
Furniture and furnishings.....	6.24	20.94	43.49	75.17	105.02
Food ²	² 1.96	18.59	49.83	47.28	68.26
Housing.....	.24	.61	2.38	3.46	6.15
Fuel and light.....	.37	11.39	28.85	41.98	54.47
Miscellaneous.....	² .42	13.83	37.96	42.70	62.85
All items.....	² .42	13.83	37.96	42.70	62.85

PORTSMOUTH, N. H., DISTRICT: White families.

Clothing:					
Male.....	2.57	14.48	39.61	70.36	105.34
Female.....	.78	10.45	40.03	63.73	103.47
Total.....	1.67	12.45	39.82	67.02	104.40
Furniture and furnishings.....	2.88	13.72	42.57	83.74	114.88
Food ²	² 1.96	18.59	49.83	47.28	68.26
Housing.....	(⁶)	(⁶)	.43	3.28	4.04
Fuel and light.....	1.72	13.69	29.28	38.03	47.06
Miscellaneous.....	² .53	14.36	39.45	45.88	66.79
All items.....	² .53	14.36	39.45	45.88	66.79

¹ The per cent of change in food prices in Manchester, N. H., has been used, food prices for Bath not being available.

² Decrease.

³ The per cent of change in food prices in Manchester, N. H., has been used, food prices for Portland not being available.

⁴ The per cent of change in food prices in Manchester, N. H., has been used, food prices for Portsmouth not being available.

⁶ No change.

PER CENT OF INCREASE IN RETAIL PRICES IN DECEMBER, 1915; 1916, AND 1917, AND AUGUST, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

NEW YORK DISTRICT: White families.

Items of expenditure.	Per cent of increase in retail prices in December, 1915, 1916, and 1917, and in August, 1918, above the prices in December, 1914.			
	December, 1915.	December, 1916.	December, 1917.	August, 1918.
Clothing:				
Male.....	4.78	20.32	51.40	95.59
Female.....	4.87	24.73	57.63	112.86
Total.....	4.82	22.31	54.21	103.39
Furniture and furnishings.....	8.43	27.60	56.47	104.55
Food.....	1.34	16.26	55.28	65.40
Housing.....	1.10	1.05	2.63	5.52
Fuel and light.....	1.06	10.98	19.92	25.20
Miscellaneous.....	1.97	14.91	44.68	62.07
All items.....	1.97	14.91	44.68	62.07

PHILADELPHIA DISTRICT: White families.

Clothing:				
Male.....	3.30	16.15	54.11	109.36
Female.....	3.94	15.90	49.12	106.73
Total.....	3.60	16.03	51.33	108.12
Furniture and furnishings.....	6.94	19.87	49.84	105.76
Food.....	.34	18.92	54.41	68.09
Housing.....	1.29	1.72	2.60	9.69
Fuel and light.....	1.81	5.37	21.54	31.65
Miscellaneous.....	1.19	14.65	43.81	67.17
All items.....	1.19	14.65	43.81	67.17

† Decrease.

PER CENT OF INCREASE IN RETAIL PRICES IN DECEMBER, 1915, 1916, AND 1917, AND AUGUST, 1918, ABOVE THE PRICES IN DECEMBER, 1914—Concluded.

Items of expenditure.	SAVANNAH, GA.: White families.				SAVANNAH, GA.: Colored families.			
	Per cent of increase in retail prices in December, 1915, 1916, and 1917, and August, 1918, above the prices in December, 1914.				Per cent of increase in retail prices in December, 1915, 1916, and 1917, and August, 1918, above the prices in December, 1914.			
	December, 1915.	December, 1916.	December, 1917.	August, 1918.	December, 1915.	December, 1916.	December, 1917.	August, 1918.
Clothing:								
Male.....		25.62	60.03	87.17		25.62	60.03	87.17
Female.....	1.65	22.21	52.51	96.77	1.65	22.21	52.51	96.77
Total.....	.76	24.06	56.58	91.57	.83	23.90	56.23	92.02
Furniture and furnishings.....	1.84	12.75	50.67	104.34	1.84	12.75	50.67	104.34
Food ¹	² 2.26	17.57	50.83	59.76	² 2.26	17.57	50.83	59.76
Housing.....	² 1.44	² 3.04	² 4.32	.24	² 1.44	² 3.04	² 4.32	.24
Fuel and light.....	² 1.30	² 1.65	21.11	31.92	² 1.30	² 1.65	21.11	31.92
Miscellaneous.....	² .21	14.59	42.49	57.67	² .21	14.32	42.18	57.42
All items.....	² .21	14.59	42.49	57.67	² .21	14.32	42.18	57.42
	JACKSONVILLE, FLA.: White families.				JACKSONVILLE, FLA.: Colored families.			
Clothing:								
Male.....	10.35	35.06	74.76	133.55	10.35	35.06	74.76	133.55
Female.....	10.61	32.03	68.49	121.20	10.61	32.03	68.49	121.20
Total.....	10.47	33.69	71.92	127.96	10.46	33.80	72.15	128.41
Furniture and furnishings.....	15.13	43.42	73.73	131.48	15.13	43.42	73.73	131.48
Food.....	² 2.26	17.57	50.83	59.76	² 2.26	17.57	50.83	59.76
Housing.....	² 6.87	² 18.15	² 18.65	² 1.42	² 6.87	² 18.15	² 18.65	² 1.42
Fuel and light.....		2.30	15.07	27.53		2.30	15.07	27.53
Miscellaneous.....	1.27	14.66	41.63	62.73	.76	13.19	39.20	59.03
All items.....	1.27	14.66	41.63	62.73	.76	13.19	39.20	59.03
	MOBILE, ALA.: White families.				MOBILE, ALA.: Colored families.			
Clothing:								
Male.....	1.77	9.12	37.91	63.47	1.77	9.12	37.91	63.47
Female.....	2.35	8.82	39.72	79.53	2.35	8.82	39.72	79.53
Total.....	2.04	8.98	38.76	71.03	2.04	8.98	38.74	70.86
Furniture and furnishings.....	4.07	15.29	42.76	88.37	4.07	15.29	42.76	88.37
Food ³	² 1.04	19.92	57.32	64.02	² 1.04	19.92	57.32	64.02
Housing.....	² 1.86	² 4.33	² 3.60	1.40	² 1.86	² 4.33	² 3.60	1.40
Fuel and light.....	(⁴)	8.76	27.11	44.13	(⁴)	8.76	27.11	44.13
Miscellaneous.....	² .40	13.82	43.16	55.85	² .58	14.13	43.85	55.18
All items.....	² .40	13.82	43.16	55.85	² .58	14.13	43.85	55.18
	BEAUMONT, TEX.: White families.				HOUSTON, TEX.: White families.			
Clothing:								
Male.....	2.36	24.56	58.65	95.21	3.11	24.76	49.32	33.02
Female.....	6.29	30.09	60.41	134.49	2.13	25.34	53.85	90.04
Total.....	4.17	27.10	59.46	113.31	2.66	25.04	51.49	36.39
Furniture and furnishings.....	8.49	28.87	53.26	100.00	6.12	29.62	62.31	112.54
Food ³	² 1.04	19.92	57.32	64.02	² 1.04	19.92	57.32	64.02
Housing.....	² .01	.04	2.30	10.54	² 2.29	² 7.34	² 7.72	² 2.08
Fuel and light.....	(⁴)	5.96	10.95	25.24	² .85	8.28	22.70	34.97
Miscellaneous.....	.44	16.46	43.44	59.37	² .29	16.41	44.89	58.33
All items.....	.44	16.46	43.44	59.37	² .29	16.41	44.89	58.33

¹ The per cent of increase in food prices in Jacksonville is here used, such figures for Savannah not being available.

² Decrease.

³ New Orleans food prices were used.

⁴ No change.

[1956]

WAGES AND COST OF LIVING IN MINING DISTRICT OF SANTA ROSALIA,
LOWER CALIFORNIA, MEXICO.¹

The El Boleo Mining Co., a French company that has been operating mines in the Santa Rosalia mining district of Lower California since 1885, having petitioned the Mexican Government for permission to lower the wages paid its employees, a commission was appointed to investigate the situation both as regards the interests of the employer and employees. This commission left the capital on December 25, 1917, and proceeded to investigate the living conditions, wages, and cost of living in the district.

The number of inhabitants living in and about the mines is about 11,000. Of these 3,800 are persons able to work. The company employs 2,800 and as there is no other industry or enterprise in operation in the district there are about 1,000 able-bodied persons without employment.

The report says: "In order properly to consider the question of wages other conditions are worthy of notice." Schools are maintained by the company in which the course of study is equivalent to that adopted for the Federal district (Mexico City), and provision is made for both day and night schools. These are in charge of 5 directors, 22 assistants; a professor of music and a professor of military instruction and a general inspector employed by the company at its own expense. School books and accessories are all supplied at the expense of the company, subject to an insignificant charge to prevent abuse, "there being no relation between the cost of the school supplies and the amount charged for them." The schools were open during the entire year and the average enrollment was 1,275, with an average attendance of 778.

Efforts are being made to improve the sanitary and hygienic conditions. Experts in the employ of the company are trying to solve the problem of drainage, etc. Four physicians are employed by the company to attend to the needs of the miners and their families in case of sickness as well as in cases of injuries due to accidents while at work.

There are no natural resources other than mineral in the district. Even the drinking water is brought from a considerable distance. Cereals, fruit, and some domestic animals are brought from other Mexican States, and other articles are secured in the United States.

Dwelling houses forming groups which may be classed generally in three grades—miners', laborers', and employees' (clerks, etc.)—have been constructed by the company with a view to securing ventilation and cleanliness. The houses occupied by the Yaquis and Chinese,

¹ Boletín Minero. Mexico City, March and April, 1918.

whose customs and idiosyncrasies must be considered, are of a different type. The monthly rental for the 1,551 dwellings reported varied from \$1 to \$12.50, only 34 renting for \$7 or more. The rent for miners' quarters ranges from \$1 to \$4 per month.

Company stores are located in each of the four mining camps. Since the low price of prime necessities is considered conducive of waste the company prohibits the purchase of large quantities. The following prices per kilo (2.2 lbs.) are reported: Corn, 8 cents; beans, 16 cents; sugar, 32 cents; coffee, 85 cents; rice, 28 cents; flour, 23 cents, and butter, 90 cents.

Wages at the time of the investigation were reported at \$2.50 per day as a minimum, with an average of \$3.50 and a maximum of \$9. An 8-hour day was observed. Continuous operations were divided into 3 shifts of 8 hours each. Sunday rest was regularly observed. Work done on Sundays, holidays, and overtime work was paid for at double rate. Premiums of 12 cents per day are paid for regularity in working, and supplementary wages equal to 8 per cent of wages are paid those who have been in the employment of the company one year or more, and 15 per cent to those having worked two years or more. Wages paid during the past year amounted to \$3,065,000. The following statement gives some idea of the number to whom supplementary wages were paid last year: There were 2,687 persons employed on January 1, 1918. Of these 1,214 had worked for the company more than 10 years, 517 from 5 to 10 years, 379 from 2 to 5 years, 160 less than one year, and 76 were newly employed.

A census showed that there were 1,682 married men, 1,929 unmarried men, 3,318 women, and 2,785 children in the district. Generally speaking, a family consisted of a husband, wife, and one child. A calculation based on the amount and value of food sold by the stores seems to indicate that the daily expense per family can not be less than \$2.50. Fixing the number of working days per month at 26 and the minimum wages at \$2.50 per day, there is a deficit of \$10 per month, but the number of persons working at that rate is small.

The company was refused the authority to reduce wages.

INCREASED COST OF LIVING IN SOUTH AFRICA.

According to the report of the Johannesburg Chamber of Commerce made available through the United States Department of Commerce, the percentage of increase in the retail prices of foodstuffs, etc., above prewar prices in Capetown, Port Elizabeth, Johannesburg, and Durban, South Africa, has been 36, 32, 25, and 39, respectively. The following table taken from the report gives the prewar and present prices in the four centers:

PREWAR AND PRESENT RETAIL PRICES OF FOODSTUFFS, ETC., IN CAPETOWN, PORT ELIZABETH, JOHANNESBURG, AND DURBAN, SOUTH AFRICA.

Article.	Unit.	Capetown.		Port Elizabeth.		Johannesburg.		Durban.	
		Pre-war.	Present.	Pre-war.	Present.	Pre-war.	Present.	Pre-war.	Present.
Bread.....	2-lb....	\$0.12	\$0.13-\$0.16	\$0.10	\$0.16	\$0.12	\$0.16	\$0.08	\$0.14
Butter.....	Lb.....	.36	.42-.54	.42	\$0.28-.48	.42	\$0.42-.54	.40	.46
Coffee, ground or mixed.....	Lb.....	.34	.26-.42	.35	.28-.48	.36	.36-.48	.34	\$0.36-.44
Eggs.....	Doz.....	.51	.60-.78	.60	.60-.72	.66	.48-.96	.49	.96-1.08
Fish, fresh.....	Lb.....	.10	.10	.07	.08	.12	.14	.12	.12
Flour, wheaten.....	25 lbs.	1.25	1.62-2.04	1.25	1.62-2.10	1.66	1.80-2.40	1.20	2.10-2.28
Jam.....	28-oz. tin.	.22	.24-.32	.20	.22-.28	.23	.28-.36	.19	.24-.31
Meats:									
Bacon.....	Lb.....	.36	.36-.52	.32	.44-.48	.39	.46-.54	.35	.44-.48
Ham.....	Lb.....		.51-.54		.44-.48		.48-.54		.46-.48
Beef.....	Lb.....	.15	.14-.20	.16	.16-.24	.16	.14-.20	.16	.18-.24
Mutton.....	Lb.....	.15	.14-.22	.15	.16-.20	.16	.16-.20	.17	.20-.28
Pork.....	Lb.....		.20-.24		.16-.22		.24		.22
Milk:									
Fresh.....	Pt.....	.06	.07	.06	.06	.06	.07-.08	.06	.07
Condensed.....	14-oz. tin.	.13	.22-.26	.12	.25-.30	.14	.26-.28	.14	.24-.26
Oatmeal:									
South African.....	Lb.....	.07	.08-.14	.07	.11-.16	.09	.11-.15	.07	.12-.16
Imported.....	Lb.....	.07	.10-.18	.07	.18-.20	.09	.14-.20	.07	.18
Rolled oats:									
South African.....	Lb.....	.07	.09-.13	.07	.10-.13	.09	.09-.15	.07	.10-.13
Imported.....	Lb.....	.07	.11-.15	.07	.15-.16	.09	.12-.15	.07	.12-.16
Potatoes.....	12 lbs.	.26	.42-.48	.19	.24-.48	.20	.28-.42	.24	.36-.44
Rice.....	Lb.....	.05	.06-.09	.05	.08-.10	.07	.08-.16	.05	.06-.12
Sugar.....	Lb.....	.05	.07-.09	.05	.09	.06	.09	.05	.08
Sirup, golden.....	Lb.....	.08	.13-.16	.08	.14-.18	.09	.12-.15	.07	.14-.16
Tea:									
South African.....	Lb.....				.36-.48		.24-.42		.36-.38
Imported.....	Lb.....	.50	.38-.48	.50	.48-.66	.54	.48-.84	.46	.46-.54
Candles.....	Lb.....	.11	.19-.26	.12	.24-.32	.12	.26-.30	.13	.20-.26
Coal.....	200-lb. bag.	.96	.76-1.04	.72	.66-.84	.48	.48-.54	.72	.72
Paraffin.....	1-gal. case.	2.22	3.84-4.26	2.28	4.20-4.56	3.22	4.28-5.16	2.16	3.84-4.08
Soap, household.....	Lb.....		.13-.20		.12-.16		.13-.18		.12-.15
Household sundries.....	Per mo.	7.32	10.08	7.32	10.08	7.32	10.08	7.32	10.08
Clothing, including boots and shoes.....		19.47	34.06	19.47	34.06	19.47	34.06	19.47	34.06
Estimated expenditure of a family of five on above articles.....		66.02	94.17	65.58	93.40	67.09	93.74	64.58	97.55
Rent.....		19.47	21.72	20.68	21.66	31.63	30.25	23.12	24.43

FOOD CONTROL.

FOOD CONTROL IN THE UNITED STATES.

WHEAT FLOUR.

In conformity with the international policy recently adopted for the conservation of wheat flour in all countries of the allies during the coming year, regulations effective September 1 were formulated by the Food Administration which provided for the preparation and marketing in the United States of mixed flours containing 20 per cent of grains other than wheat. All such mixed flours must be milled in accordance with the standards of the Food Administration and are to be labeled with the ingredients in order of their proportion. The regulations provide that:

Mixed wheat and barley flour shall be in the proportion of 4 pounds of wheat flour to 1 pound of barley flour.

Mixed wheat and corn flour shall contain the proportion of 4 pounds of wheat flour to 1 pound of corn flour.

Mixed wheat, barley, and corn flour shall contain the proportions of 8 pounds of wheat flour to 1 pound of barley and 1 pound of corn flour.

Mixed wheat and rye flour shall contain the proportion of 3 pounds of wheat flour to not less than 2 pounds of rye flour.

Whole wheat, entire wheat, or graham flour or meal shall contain at least 95 per cent of the wheat berry.

All the above "Victory flours" may be sold without substitutes, but at no greater price from the miller, wholesaler, or retail dealer than in the case of standard wheat flour. It is desired that millers and dealers encourage the use of this flour, so that the country may be on a mixed flour basis without the necessity of retailers making combination sales of wheat flour and substitutes. At the same time it is not intended that the mixed flour shall displace the present large use of corn bread by the American people.

In cases where straight wheat flour is sold by retailers, the regulations provide that 20 per cent of other cereal flours must be sold coincidentally. It is also required that all baker's bread shall contain 20 per cent of other cereals and the Food Administration relies upon the householders of the country to mix at least 20 per cent of the substitute cereals into the wheat flour at home for all uses.

In localities where such substitutes are available it is permissible for retailers to sell, if the consumer so demands, the following flours at the ratio of one pound to each four pounds of wheat flour: Feterita flour and meal, rice flour, oat flour, kafir flour, milo flour, peanut flour,

bean flour, potato flour, sweet potato flour, and buckwheat flour. Pure rye flour or meal may be sold as a substitute in the ratio of at least 2 pounds of rye to 3 pounds of wheat flour.

Other alterations of previous rules are announced by the Food Administration as follows:

The consumption of wheat flour in bakery products not to exceed 70 per cent of the 1917 consumption is hereby rescinded.

Wheat flour substitutes for bakers remain as heretofore with the exception of rye, which will be a substitute when used upon a basis of not less than 40 per cent, which is 2 pounds of rye flour to every 3 pounds of standard wheat flour. When rye is used in this proportion or a greater proportion, no other substitutes are required. If less than this proportion of rye flour is used the difference between such amount used and 40 per cent must be made up of other substitutes.

Bakers will be required to use 1 pound of substitutes to each 4 pounds of wheat flour in all bakery products, including bread, except class 3a—crackers—in which only 10 per cent of substitutes other than rye are required.

The use of the name "Victory" will be allowed in all products containing the above proportions of substitutes.

The previous rules limiting licensees, millers, wholesalers, retailers, and bakers to 30 days' supply of flour will be changed to permit a 60 days' supply.

The rules limiting sales by retailers of wheat flour to an eighth of a barrel in cities and a quarter of a barrel in sparsely settled districts are rescinded.

The rule limiting the sale of flour by millers to wholesalers, or wholesalers to retailers, in combination with substitutes or certificates therefore and the rule restricting the sale to 70 per cent of previous sales are rescinded.

Manufacturers of alimentary pastes and wheat breakfast foods are limited to their normal consumption of wheat or wheat flour with the understanding that they are not to unduly expand their ordinary consumption of wheat.

Rules prohibiting the starting of new plants ready for operation prior to July 1, 1918, are rescinded.

Where millers sell directly to consumers they shall obey the same regulations as retail store dealers.

Wheatless days and wheatless meals are discontinued.

Nothing in these regulations is to be construed to mean that there has been any setting aside or changing of the pure food laws as promulgated by the Bureau of Chemistry, Department of Agriculture or the internal revenue law as administered by the internal revenue commissioner, which requirements must be conformed to by manufacturers and dealers in all cases.

RICE.

After conferences with representatives of the trade, the Food Administration has arranged for an equitable distribution of the rice crop among millers. Under the plan adopted each mill will have allotted to it the maximum amount it may purchase of the 1918 crop, based on its present capacity and its average receipts during the past three seasons. Millers are required to furnish a sworn statement covering these facts.

Valuation committees have been appointed in various southern cities in which sales offices have been established and all rice is to be

bought at the valuation and on the grades fixed by these committees. To save man power and expense, all rice is to be weighed at points of shipment to mills, where grading will be done by officials designated by the committees. No purchases will be made except at regular sales offices, unless with the prior approval of one of the offices, and after a valuation has been set on the rice to be sold. By agreement, millers have pledged themselves to the Food Administration not to sell clean rice at more than $7\frac{3}{8}$ cents a pound for choice Japan to $9\frac{1}{2}$ cents for fancy Honduras.

CORN GOODS.

To further standardize corn milling products, changes in grades affecting grits, cream meal, corn flour, pearl meal, and common corn meals were announced by the Food Administration on August 25. The new grades will permit grits, cream meal and corn flour to have a moisture content of from $12\frac{1}{2}$ to $13\frac{1}{2}$ per cent, while the fat content may range from $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent instead of being limited rigidly to $1\frac{1}{2}$ per cent as heretofore. In any case, the sum of the two must not exceed 15 per cent.

When shipped in interstate traffic, common corn meal must not contain more than 12 per cent of moisture. If for local distribution no restriction as to moisture or fat content is imposed. Standards for pearl meal are now fixed at 12 per cent for moisture and 3 per cent for fat, whether for domestic use or for export, instead of 11 per cent and 3 per cent, respectively. Rye and barley flour and oat products have been standardized in the same manner.

SUGAR.

Effective September 9, the price of cane sugar for next year basis was fixed by the sugar equalization board at 9 cents per pound for granulated, less 2 per cent, f. o. b. seaboard refining points. Wholesalers and retailers will continue to sell upon the old basis until their stocks of the lower priced sugars are exhausted. No averaging of prices will be allowed. In order that manufacturers may not benefit by the increased price, all increase in price of sugar in the hands of refiners or of raw sugar under contract must be accounted for to the sugar equalization board.

To compensate for the increased costs of materials, labor, and the increase in the value of raw sugar lost in refining, the Food Administration has authorized an increase in the differential over that allowed last year. Working back from the established basis of 9 cents, granulated, seaboard points, the price of raw sugar has been fixed at \$7.28 per 100 pounds, duty paid, effective September 9. For old crop sugars the difference between this basis and the old basis will be accounted for to the sugar equalization board by the refiners.

A contract for the purchase of the new Cuban sugar crop at a price of about \$5.50 per hundred pounds, f. o. b. Cuban ports, has been closed with the Cuban Government by the sugar equalization board on behalf of the American, English, French, and Italian Governments. This arrangement put an end to all speculation in sugar and assures an equitable distribution of sugar among the allied countries.

POULTRY AND EGGS.

In transactions involving the sale of fresh poultry and fresh eggs the following classes of dealers are recognized by the Food Administration: (1) Original packers and shippers, (2) commission merchants and wholesalers, (3) jobbers and suppliers of hotels and institutions, and (4) retailers. With few exceptions, sales between dealers in any one of these classes are prohibited. For the present, sales between wholesalers in different cities will be permitted when necessary to supply the reasonable requirements of the buyer's business. In such cases, however, there must be an actual shipment of the goods and the movement between cities must be in the direction of normal trade movement from producer to consumer.

In addition to sales between cities, only two sales between dealers in class 2 may be made without obtaining the consent of the local Federal Food Administrator, and then only if such sales are necessary to supply the reasonable requirements of the buyer's business. Further sales in this class can not be made without the written consent of the local administrator. In the other classes only one sale between dealers in the same class can be made without the consent of the local Federal Food Administrator, and such sale must be for the purpose of supplying the reasonable requirements of the buyer's business. No backward movements of poultry and eggs will be allowed, the purpose being to keep these products moving in as direct a line as possible from the producer to the consumer.

FOOD REGULATION IN THE DISTRICT OF COLUMBIA.

In the August issue of the MONTHLY LABOR REVIEW (pp. 141-144) an account was given of the method pursued by the District of Columbia Food Administration in controlling prices by the publication each week of a "fair price list" giving maximum and minimum prices that consumers should pay for the leading food commodities. Many complaints are daily received by the Food Administration from housewives who feel that they are being imposed upon in the matter of prices. They are encouraged to report unfair charges, but it is insisted that the complaints must be definite and well founded and accompanied by sales slips showing the prices paid.

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A uniform method of procedure is followed in investigating complaints of unfair charges. The inspection clerk enters them in a docket the day they are received and then apportions them among members of the force. In case the letter is signed, a letter of acknowledgment is written. The inspector then goes to the store and prices the commodity or commodities in question, as if he were a customer, in order to get as much information as possible before explaining his real business. In flagrant cases of violation, or where the grocer shows a willful disregard of the rules and regulations of the Food Administration and a satisfactory understanding can not be reached between the grocer and the inspector, the former is summoned to the office and given a hearing before the local food administrator. At these hearings every effort is made to weigh both sides of the question and to do justice to the grocer as well as to the consumer. The United States Food Administration has at no time attempted to fix prices or to say what prices are fair or unfair. It has, however, suggested a fair margin of profit on a list of commodities. If it can be established without a doubt that a grocer is making an unfair margin of profit, he is a profiteer and liable to such punishment as the law allows. However, upon investigation it often appears that what at first seemed an unfair margin of profit is not unreasonable in reality, for if a grocer pays more for a commodity he may charge more for it and still not make an unfair profit. Many Washington grocers claim that their trade demands goods of extra quality. In such instances in which the dealer insists that it would be detrimental to his business not to cater to this trade, the administrator requires him to carry goods of good standard quality also and offer them for sale along with the more fancy grades.

It does not appear to be the desire of the Food Administration to require a merchant to sell at a price so low as to force him out of business and the problem of reducing prices in Washington is further complicated by the unanimous testimony of the grocers that the cost of doing business in Washington is higher than in the other cities so often compared to Washington.

On the other hand, there are clear cases of profiteering which can be handled quite easily and a number of such have been brought to light by inspectors working for the sugar department. As was explained in the last number, all persons handling sugar in large quantities must file a statement in the sugar department of the amount on hand and the amount used during a previous given period. All manufacturers of goods containing sugar, hotel, restaurant, or boarding-house keepers, druggists who use sugar at the fountain, grocers and bakers must file statements. Certificates entitling them

to purchase their allotment of sugar are mailed to them on the first of each month. There was no further reduction in the allotments for September, as, with a few exceptions, they were figured on the same basis as for August.

During the month of August the inspection force did some systematic investigating to ascertain whether or not any false statements had been sworn to, with the result that several cases of hoarding were uncovered. One lunch-room proprietor whose allotment entitled him to 230 pounds per month (figured on the basis of 2 pounds for every 90 meals served) was found upon investigation to have 1,000 pounds stored away, of which amount he had reported 15 pounds only. As punishment not only were the 1,000 pounds taken away from him but also an order was issued against him, prohibiting all dealers from furnishing him any sugar until further notice.

A grocer who swore to a false statement met with similar treatment, only in addition to having his supply cut off and his stock on hand taken away, he was forced to post a large sign as follows: "Mr. Blank made a false statement to the Food Administration on the 10th of July that he had only 1,200 pounds of sugar, whereas he actually had on hand 2,640 pounds. On account of this misstatement of facts, Mr. Blank's sugar supply has been taken away and he will not be allowed to deal in sugar until further notice." Grocers prefer almost any kind of punishment to this undesirable form of advertising and this particular grocer thought to protect himself by hanging the sign in a window and then lowering the awning so as almost completely to hide the sign. However, the Food Administration was soon advised of this attempted camouflage and the sign was moved to a more conspicuous place inside the store.

Another grocer, who was said not to be restricting his trade to 2 pounds per person per month, was discovered with 3,360 pounds in his possession which he had failed to report and was forced to surrender it. But because of the somewhat isolated situation of this store it was not considered advisable to issue an "unfair order" since this would put the neighborhood to considerable inconvenience. Instead, his monthly allotment was reduced from 4,000 pounds to 1,800 pounds.

WAGES AND HOURS OF LABOR.

NEW WAGE ORDERS ISSUED BY THE DIRECTOR GENERAL OF RAILROADS.

Late in August, 1918, the Director General of Railroads issued Supplements No. 7 and 8 to General Order No. 27,¹ fixing wages of certain railroad employees, the purpose of these supplements being to stabilize wages and remove certain inequalities occurring in General Order No. 27, which the supplements supersede in so far as it is applicable to the classes of employees to which they refer. Supplement No. 7 affects all clerks, station employees, stationary engineers, boiler washers, power transfer and turntable operators, and common laborers in shops, roundhouses, stations, storehouses, and warehouses. Supplement No. 8 affects all maintenance-of-way department employees working on tracks, bridges, and buildings, and includes painters, masons, and concrete workers, water-supply employees, plumbers, etc. Both supplements contain general rules for promotion and adjustment of grievances.

Generally speaking, the wage increases contained in the supplements amount, as compared with the wages paid on January 1, 1918, to \$25 per month for employees paid on a monthly basis and 12 cents per hour for employees paid on an hourly basis. These increases include any increase granted to these employees put into effect under General Order No. 27. The new rates became effective September 1, 1918, and back pay from January 1, 1918, not already paid out, will be based on the rate established in General Order No. 27. Under these supplements the eight-hour day is established throughout for these employees with overtime up to 10 hours on a pro rata basis and time and one-half thereafter. Nearly one million employees are affected by these orders.

TEXT OF SUPPLEMENT No. 7.

The following is the text of Supplement No. 7:

Effective September 1, 1918, superseding General Order No. 27, and in lieu thereof, as to the employees herein named, the following rates of pay and rules for overtime and working conditions for all clerical forces in all departments and for certain employees in stations, storage or terminal warehouses, docks, storehouses, shops, and yards, upon railroads under Federal control, are hereby ordered:

¹ General Order No. 27 was published in full in the MONTHLY REVIEW for June, 1918 (pp. 1-21), and Supplement No. 4, providing increases of wages in mechanical departments of railroads, was published in the MONTHLY LABOR REVIEW for September, 1918 (pp. 131 to 134).

ARTICLE I.

RATES OF PAY.

(a) For all employees who devote a majority of their time to clerical work of any description, including train announcers, gatemen, checkers, baggage and parcel room employees, train and engine crew callers, and the operators of all office or station equipment devices (excepting such as come within the scope of existing agreements or those hereafter negotiated with the railroad telegraphers), establish a basic minimum rate of \$62.50 per month; and to this basic minimum rate and all rates of \$62.50 and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$87.50 per month.

(b) This order shall apply to chief clerks, foremen, subforemen, and other similar supervisory forces of employees herein provided for.

(c) For office boys, messengers, chore boys, and other employees under 18 years of age filling similar positions and station attendants establish a basic minimum rate of \$20 per month, and to this basic minimum rate and all rates of \$20 per month and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$45 per month.

(d) For all other employees not otherwise classified, such as janitors, elevator and telephone switchboard operators, office, station, and warehouse watchmen, establish a basic minimum rate of \$45 per month, and to this basic minimum rate and all rates of \$45 per month and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$70 per month.

(e) The same increases provided for in sections (a), (b), (c), and (d) of this article shall apply to employees named therein paid on any other basis.

(f) The wages for new positions shall be in conformity with the wage for positions of similar kind or class where created.

ARTICLE II.

STATIONARY ENGINEERS (STEAM), FIREMEN, AND POWER-HOUSE OILERS.

(a) For all stationary engineers (steam), establish a basic minimum rate of \$85 per month, and to this basic minimum rate and all rates of \$85 and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$110 per month.

(b) This order shall apply to chief stationary engineers.

(c) For all stationary firemen and power-house oilers, establish a basic minimum rate of \$65 per month, and to this basic minimum rate and all rates of \$65 and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$90 per month.

ARTICLE III.

LOCOMOTIVE BOILER WASHERS.

For all locomotive boiler washers who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 26 cents per hour, establish a basic minimum rate of 26 cents per hour, and to this basic minimum rate and all hourly rates of 26 cents and above add 12 cents per hour, establishing a minimum rate of 38 cents per hour, provided that the maximum shall not exceed 50 cents per hour.

ARTICLE IV.

POWER TRANSFER AND TURNTABLE OPERATORS.

For all operators of power-driven transfer and turntables who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 21 cents per hour, establish a basic minimum rate of 21 cents per hour, and to this basic minimum rate and all hourly rates of 21 cents and above add 12 cents per hour, establishing a minimum rate of 33 cents per hour, provided that the maximum shall not exceed 45 cents per hour.

ARTICLE V.

SHOP, ROUNDHOUSE, STATION, STOREHOUSE, AND WAREHOUSE EMPLOYEES (EXCEPT EMPLOYEES PROVIDED FOR IN HARBOR AWARDS).

(a) For all laborers employed in and around shops, roundhouses, stations, storehouses, and warehouses (except employees provided for in harbor awards), such as engine watchmen and wipers, fire builders, ash-pit men, boiler washer helpers, flue borers, truckers, stowers, shippers, coal passers, coal-chute men, etc., who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 19 cents per hour, establish a basic minimum rate of 19 cents per hour, and to this basic minimum rate, and all hourly rates of 19 cents and above, add 12 cents per hour, establishing a minimum rate of 31 cents per hour, provided that the maximum shall not exceed 43 cents per hour.

(b) For all common labor in the departments herein referred to and not otherwise provided for, who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 16 cents per hour, establish a basic minimum rate of 16 cents per hour, and to this basic minimum rate and all hourly rates of 16 cents and above, add 12 cents per hour, establishing a minimum rate of 28 cents per hour, provided that the maximum shall not exceed 40 cents per hour.

ARTICLE VI.

MONTHLY, WEEKLY, OR DAILY RATES.

For all monthly, weekly, or daily rated employees in the departments herein referred to and not otherwise provided for, increase the rates in effect as of January 1, 1918, prior to the application of General Order No. 27, on the basis of \$25 per month.

ARTICLE VII.

MAXIMUM MONTHLY WAGE.

No part of the increases provided for in this order shall apply to establish a salary in excess of \$250 per month.

ARTICLE VIII.

PRESERVATION OF RATES.

(a) The minimum rates, and all rates in excess thereof, as herein established, and higher rates which have been authorized since January 1, 1918, except by General Order No. 27, shall be preserved.

(b) Employees temporarily or permanently assigned to higher-rated positions shall receive the higher rates while occupying such positions; employees temporarily assigned to lower-rated positions shall not have their rates reduced.

ARTICLE IX.

EXCEPTION.

The provisions of this order will not apply in cases where amounts less than \$30 per month are paid to individuals for special service which only takes a portion of their time from outside employment or business.

ARTICLE X.

HOURS OF SERVICE.

Eight (8) consecutive hours, exclusive of the meal period, shall constitute a day's work.

ARTICLE XI.

OVERTIME AND CALLS.

(a) Where there is no existing agreement or practice more favorable to the employees, overtime shall be computed for the ninth and tenth hour of continuous service, pro-rata on the actual minute basis, and thereafter at the rate of time and one-half time. Even hours will be paid for at the end of each pay period; fractions thereof will be carried forward.

(b) When notified or called to work, outside of established hours, employees will be paid a minimum allowance of three hours.

(c) Employees will not be required to suspend work during regular hours to absorb overtime.

ARTICLE XII.

PROMOTION AND SENIORITY.

(a) Promotions shall be based on ability, merit, and seniority; ability and merit being sufficient, seniority shall prevail, except, however, that this provision shall not apply to the personal office forces of such officers as superintendent, train master, division engineer, master mechanic, general freight or passenger agent, or their superiors in rank and executive officers. The management shall be the judge, subject to an appeal, as provided in Article XIII.

(b) Seniority will be restricted to each classified department of the general and other offices and of each superintendent's or master mechanic's division.

(c) Seniority rights of employees referred to herein, to:

(1) New positions,

(2) Vacancies will be governed by paragraphs (a) and (b) of this article.

(d) Employees declining promotion shall not lose their seniority.

(e) Employees accepting promotion will be allowed 30 days in which to qualify, and failing, will be returned to former position without loss of seniority.

(f) New positions or vacancies will be promptly bulletined for a period of 5 days in the departments where they occur. Employees desiring such positions will file their applications with the designated official within that time, and an appointment will be made within 10 days thereafter. Such position or vacancy may be filled temporarily pending an assignment. The name of the appointee will immediately thereafter be posted where the position or vacancy was bulletined.

(g) In reducing forces, seniority shall govern. When forces are increased, employees will be returned to the service and positions formerly occupied, in the order of their seniority. Employees desiring to avail themselves of this rule must file their names and addresses with the proper official. Employees failing to report for duty or give satisfactory reason for not doing so within seven days from date of notification will be considered out of the service.

(h) A seniority roster of all employees in each classified department, who have been in the service 6 months or more, showing name, date of entering the service, and the date of each promotion or change, will be posted in a place accessible to those affected.

(i) The roster will be revised and posted in January of each year, and shall be open to correction for a period of 60 days from date of posting, on presentation of proof of error by an employee or his representative. The duly accredited representative of the employee shall be furnished with a copy of roster upon written request.

ARTICLE XIII.

DISCIPLINE AND GRIEVANCES.

(a) An employee disciplined, or who considers himself unjustly treated, shall have a fair and impartial hearing, provided written request is presented to his immediate superior within 5 days of the date of the advice of discipline, and the hearing shall be granted within 5 days thereafter.

(b) A decision will be rendered within 7 days after the completion of hearing. If an appeal is taken, it must be filed with the next higher official and a copy furnished the official whose decision is appealed within 5 days after date of decision. The hearing and decision on the appeal shall be governed by the time limits of the preceding section.

(c) At the hearing or on the appeal, the employee may be assisted by a committee of employees, or by one or more duly accredited representatives.

(d) The right of appeal by employees or representatives, in regular order of succession and in the manner prescribed up to and inclusive of the highest official designated by the railroad, to whom appeals may be made, is hereby established.

(e) An employee on request will be given a letter, stating the cause of discipline. A transcript of evidence taken at the investigation or on the appeal will be furnished on request to the employee or representative.

(f) If the final decision decrees that charges against the employee were not sustained, the record shall be cleared of the charge; if suspended or dismissed, the employee shall be returned to former position and paid for all time lost.

(g) Committees of employees shall be granted leave of absence and free transportation for the adjustment of differences between the railroad and the employees.

ARTICLE XIV.

RULES FOR APPLICATION OF THIS ORDER.

(a) It is not the intention of this order to change the number of days per month for monthly paid employees. The increases per month provided for herein shall apply to the same number of days per month which were worked as of January 1, 1918.

(b) The pay of female employees, for the same class of work, shall be the same as that of men, and their working conditions must be healthful and fitted to their needs. The laws enacted for the government of their employment must be observed.

ARTICLE XV.

INTERPRETATION OF THIS ORDER.

The rates of pay and rules herein established shall be incorporated into existing agreements and into agreements which may be reached in the future, on the several railroads; and should differences arise between the management and the employees of any of the railroads as to such incorporation, intent, or application of this order prior to the creation of additional railway boards of adjustment, such questions of

difference shall be referred to the Director of the Division of Labor for decision, when properly presented, subject always to review by the Director General.

Agreements or practices, except as changed by this order, remain in effect.

PROVISIONS OF SUPPLEMENT NO. 8.

In presenting the text of Supplement No. 8 the provisions which are identical with those of Supplement No. 7 are omitted, reference to them only being made; the other portions are given in full.

Effective September 1, 1918, superseding General Order 27, and in lieu thereof, as to the employees herein named, the following rates of pay and rules for overtime and working conditions for all employees in the maintenance-of-way department (except mechanics and helpers where provided for in Supplement No. 4, General Order No. 27, and clerical forces), upon railroads under Federal control are hereby ordered:

ARTICLE I.

RATES OF PAY.

(a) For all building, bridge, painter, signal, and construction, mason and concrete water supply, maintainer, and plumber foremen, establish a basic minimum rate of \$90 per month, and to this basic minimum rate and all rates of \$90 per month and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$115 per month.

(b) For all assistant building, bridge, painter, signal and construction, mason and concrete, water supply, maintainer, and plumber foremen, and for coal wharf, coal chute, and fence gang foremen; pile driver, ditching and hoisting engineers, and bridge inspectors, establish a basic minimum rate of \$80 per month, and to this basic minimum rate and all rates of \$80 per month and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$105 per month.

(c) For all track foremen, establish a basic minimum rate of \$75 per month, and to this basic minimum rate and all rates of \$75 per month and above, in effect as of January 1, 1918, prior to the application of General Order No. 27, add \$25 per month, establishing a minimum rate of \$100 per month.

(d) Rates of pay for all assistant track foremen will be 5 cents an hour in excess of the rate paid laborers whom they supervise.

(e) For all mechanics in the maintenance-of-way and bridge and building departments, where not provided for in Supplement No. 4 to General Order No. 27, who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 40 cents per hour, establish a basic minimum rate of 40 cents per hour, and to this basic minimum rate and all rates of 40 cents per hour and above add 13 cents per hour, establishing a minimum rate of 53 cents per hour.

(f) For helpers to all mechanics in the maintenance-of-way and bridge and building departments, where not provided for in Supplement No. 4 to General Order No. 27, who were on January 1, 1918, prior to the application of General Order No. 27, receiving less than 30 cents per hour, establish a basic minimum rate of 30 cents per hour, and to this basic minimum rate and all hourly rates of 30 cents per hour and above add 13 cents per hour, establishing a minimum rate of 43 cents per hour.

(g) For track laborers and all other classes of maintenance-of-way labor not herein named, who on January 1, 1918, prior to the application of General Order No. 27, were receiving less than 16 cents per hour, establish a basic minimum rate of 16 cents per hour, and to this basic minimum rate and all hourly rates of 16 cents per hour and

above add 12 cents per hour, establishing a minimum rate of 28 cents per hour, provided that the maximum shall not exceed 40 cents per hour.

(h) For drawbridge tenders, and assistants, pile driver, ditching and hoisting firemen, pumper engineers and pumpers, crossing watchmen or flagmen, lamp lighters and tenders, add to the rate in effect as of January 1, 1918, prior to the application of General Order No. 27, \$25 per month.

(i) The wages for new positions shall be in conformity with the wages for positions of similar kind or class in department where created.

Articles II, III, IV, V, VI, and VII are identical with Articles VI, VII, VIII, IX, X, and XI, respectively, of Supplement No. 7.

ARTICLE VIII.

PROMOTION AND SENIORITY RIGHTS.

(a) Promotions shall be based on ability, merit, and seniority. Ability and merit being sufficient, seniority shall prevail. The management shall be the judge, subject to an appeal as provided for in Article IX.

(b) The seniority rights of laborers, as such, will be restricted to their gangs, except where gang is abolished they may displace laborers in other gangs who are junior in service.

(c) Except as provided for in section (b) of this article, the seniority rights of employees referred to herein, to:

(1) New positions.

(2) Vacancies: Will be governed by section (a) of this article, and will be restricted to the maintenance division upon which employed.

Sections (d), (e), and (f) are identical with similarly designated sections of Article XII, Supplement No. 7.

(g) In reducing forces, seniority shall govern; foremen will displace other foremen who are their junior in service before displacing laborers. When forces are increased, employees will be returned to the service and positions formerly occupied in the order of their seniority. Employees desiring to avail themselves of this rule must file their names and addresses with the proper official. Employees failing to report for duty or to give satisfactory reason for not doing so within seven days from date of notification will be considered out of the service.

(h) Employees furloughed for six months or less will retain their seniority.

(i) A seniority roster of all employees in each classified department, showing name, date of entering the service, and date of promotion, will be posted in a conspicuous accessible place in each roadmaster's or supervisor's office. The names of laborers who have been in the service at least six months prior to date roster is posted or revised will be shown, with their relative standing and the date they entered the service.

(j) The roster will be revised and posted in January of each year, and shall be open to correction for a period of 60 days after date posted on presentation of proof of error by an employee or representative. A copy will be furnished to each foreman or duly accredited representative upon request.

Article IX is identical with Article XIII, Supplement No. 7.

ARTICLE X.

GENERAL RULES.

(a) For main line, branch line, and yard-section men, the day's work will start and end at point designated to report for duty at their respective sections or yards.

(b) Employees taken from their regular assignment or outfit, to work temporarily elsewhere, will be furnished with board and lodging at the railroad's expense.

(c) Unless they so desire, except in emergency, employees shall not be transferred from one division to another.

Articles XI and XII are identical with Articles XIV and XV, Supplement No. 7.

Supplement No. 6 to General Order No. 27 was issued on August 30, 1918. It gives to the Board of Railroad Wages and Working Conditions authority to make investigations and submit recommendations to the Director General respecting interpretations of all wage orders, and indicates the procedure to be followed. The text of the order is as follows:

In General Order No. 27 and supplements thereto, and in certain memoranda of understanding creating railway boards of adjustment put in effect by General Orders No. 13 and No. 29, methods have been provided for interpretation of wage orders issued by the Director General upon recommendations of such boards and the division of labor, "subject always to review by the Director General." For the purpose of affording prompt interpretations of all wage orders issued by the Director General, the duties and authority of the board of railroad wages and working conditions are hereby extended to include investigations and recommendations to the Director General of interpretations of all such wage orders, when requested to do so by the director of the division of labor.

It should be understood by railroad employees that it is impracticable to give interpretation on ex parte statement to the thousands who request information as to the manner in which wage orders should be applied in individual cases. Operating officials of the railroads are required to place wage orders in effect fairly and equitably, and should differences of opinion arise necessitating a formal interpretation, the matter will be disposed of in the following manner:

When a wage order is placed in effect in a manner with which an employee, or the employee's committee disagrees, a joint statement quoting the language of the wage order, and including the contentions of employees and the contentions of officials signed by the representatives of the employees and the officials, will be transmitted to the director of labor, who will record and transmit same to the board of railroad wages and working conditions, which will promptly investigate and make recommendation to the Director General. Upon the receipt of interpretation from the Director General, the director of labor will transmit such interpretation to the railway boards of adjustment for their information and guidance in the application of such interpretation to existing conditions, or to questions arising from the incorporation of the order as so interpreted into existing agreements on all railroads under Federal control. As occasion demands, all interpretations will be printed and given general publicity, for the purpose of communicating the information to all concerned, and thus avoiding the necessity of duplication of interpretations.

On and after September 1, 1918, any disagreement between the employees and the officials, over the application of any wage order, will be submitted to the director of labor, as outlined above, but in order promptly to dispose of all requests for inter-

pretations previously presented to the division of labor, or to the boards of adjustment, such requests will be immediately recorded and transmitted to the board of railroad wages and working conditions by the director of labor.

Nothing herein contained revokes authority granted to the division of labor or railway boards of adjustment in determining disputes arising in connection with the application of interpretations of wage orders to existing conditions, or in connection with the incorporation of such interpretations into existing agreements.

INCREASE IN WAGES OF COACH CLEANERS.

An addendum to Supplement No. 4 to General Order No. 27, affecting wages and hours of coach cleaners, was issued by the Director General too late for inclusion in the September number of the MONTHLY LABOR REVIEW which contained the text of Supplement No. 4, and that portion pertaining to wages is here given in full.

Effective September 1, 1918, superseding General Order No. 27, and in lieu thereof, as to the employees herein named, the following rates of pay and rules for coach cleaners are hereby ordered:

ARTICLE I.

RATES OF PAY.

(a) For coach cleaners who were on January 1, 1918, prior to the application of General Order No. 27 receiving less than 16 cents per hour, establish a basic minimum rate of 16 cents per hour, and to this basic minimum rate and all hourly rates of 16 cents and above add 12 cents per hour, establishing a minimum rate of 28 cents per hour, provided that the maximum shall not exceed 40 cents per hour.

(b) All coach cleaners shall be paid on the hourly basis.

ARTICLE II.

PRESERVATION OF RATES.

(a) The minimum rates and all rates in excess thereof, as herein established, and higher rates which have been authorized since January 1, 1918, except by General Order No. 27, shall be preserved.

(b) Coach cleaners temporarily or permanently assigned to higher rated positions shall receive the higher rates while occupying such positions; coach cleaners temporarily assigned to lower rated positions shall not have their rates reduced.

Articles III and IV contain the same provisions as to hours and payment for overtime as Article X and sections (a) and (c) of Article XI, respectively, of Supplement No. 7 noted on page 133 of this issue.

RAILROAD EMPLOYEES' WAGES EXEMPT FROM GARNISHMENT.

An order of September 5 issued by the Director General of Railroads takes additional steps in the direction of fixing the status of railroad employees by declaring their wages exempt from garnishment, because paid from public funds. This places them on the same footing as other employees paid from such funds, and secures them in the enjoyment of their earnings without interference by "garnishment, attachment, or like process" while such wages are in the hands of the carriers or of any employee or officer of the Railroad Administration. It is announced that if found necessary,

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regulations will be issued to require employees to provide for their just debts, but garnishment and attachment are declared to be inconsistent with the act of Congress taking over the operation of the roads, and their economical and efficient administration.

UNION SCALES IN THE BUILDING, METAL, AND GRANITE AND STONE TRADES AND IN FREIGHT HANDLING.

In the September, 1918, MONTHLY LABOR REVIEW there was published the union scale of wages and hours of labor as of May 15, 1918, for the principal occupations in the building, freight handling, granite and stone, and metal trades in the principal cities of the North Atlantic division of the United States. In continuation of that subject there is here published the union scale for the same date and the same industries and occupations in selected cities of the North Central division of the country. Known changes since May 15, 1918, are indicated in footnotes. The scale as of May 15, 1917, is printed in parallel columns so that comparison may be made between the two years.

The information was collected by special agents of the United States Bureau of Labor Statistics in personal calls on the local union officials.

Included in the table are the following occupations in shops of railroads under control of the United States Director General of Railroads: Blacksmiths, boiler makers, machinists, sheet-metal workers and their helpers.

On July 25, 1918, Supplement No. 4¹ to General Order No. 27² awarded to journeymen of the above trades a minimum rate of 68 cents per hour, and to helpers 45 cents per hour, and made provisions for overtime.

The award was made retroactive to January 1, 1918, therefore the awarded scale is included in this table, which, as stated, reports as of May 15, 1918. Single time rate is applied to the eight basic hours, and noted for any additional time, which constituted the basic working day before the award was made. Overtime rates and rates for work on Sundays and holidays, which were in effect on May 15, 1918, prior to the award, are shown in the table. For all overtime after the basic eight-hour day and for work on Sundays and holidays the award fixed a rate of time and one-half to be effective as of August 1, 1918.

¹ See pp. 131-134 of the September, 1918, MONTHLY LABOR REVIEW.

² See pp. 1-45 of the June, 1918, MONTHLY REVIEW.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1913, AND MAY 15, 1917.

BUILDING TRADES.

Occupation and city.	May 15, 1918.					Mos. with Sat-ur-day half holi-day.	May 15, 1917.		Hours— Full days; Saturdays; Full week
	Rate of wages—				Rate of wages—				
	Per hour.	Per week, full time.	For over-time.	For Sun-days and holi-days.	Per hour.		Per week, full time.		
ASBESTOS WORKERS.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Chicago, Ill.	170.0	30.80	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44
Cincinnati, Ohio.	60.0	26.40	1½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44
Cleveland, Ohio.	57.5	25.30	1½	2	8 - 4 - 44	12	53.8	23.65	8 - 4 - 44
Detroit, Mich.	62.5	27.50	2	3½	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48
Grand Rapids, Mich.	62.5	27.50	4½	3½	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44
Kansas City, Mo.	62.5	27.50	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44
Milwaukee, Wis.	57.5	25.30	4½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44
Minneapolis, Minn.	57.5	25.30	4½	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44
Omaha, Nebr.	60.0	26.40	1½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44
St. Louis, Mo.	71.3	31.35	4½	2	8 - 4 - 44	12	67.5	29.70	8 - 4 - 44
St. Paul, Minn.	57.5	25.30	4½	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44
BRICKLAYERS.									
Chicago, Ill.	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Fireproofing.	77.5	34.10	1½	2	8 - 4 - 44	12	77.5	34.10	8 - 4 - 44
Cincinnati, Ohio.	90.0	40.50	2	2	8 - 5 - 45	12	75.0	33.75	8 - 5 - 45
Cleveland, Ohio.	90.0	39.60	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Columbus, Ohio.	87.5	38.50	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Davenport, Iowa, and Rock Island, Ill.	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Des Moines, Iowa.	81.3	35.75	2	2	8 - 4 - 44	12	77.5	34.10	8 - 4 - 44
Detroit, Mich.	80.0	35.20	1½	2	8 - 4 - 44	9	75.0	33.00	8 - 4 - 44
Grand Rapids, Mich.	75.0	33.00	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44
Indianapolis, Ind.	85.0	37.40	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Kansas City, Mo.	87.5	38.50	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Milwaukee, Wis.	72.5	31.90	2	2	11 8 - 4 - 44	12	72.5	31.90	8 - 4 - 44
Minneapolis, Minn.	75.0	33.00	1½	2	12 8 - 4 - 44	5	75.0	33.00	12 8 - 4 - 44
Omaha, Nebr.	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Peoria, Ill.	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
St. Louis, Mo.	85.0	37.40	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
St. Paul, Minn.	75.0	33.00	1½	2	13 8 - 4 - 44	5	75.0	33.00	12 8 - 4 - 44
Wichita, Kans.	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
BRICKLAYERS, SEWER, TUNNEL, AND CAISSON WORK.									
Chicago, Ill.	125.0	55.00	2	2	8 - 4 - 44	12	125.0	55.00	8 - 4 - 44
Cleveland, Ohio:									
Tunnel work.	125.0	55.00	1½	2	8 - 4 - 44	12	125.0	55.00	8 - 4 - 44
Sewer work.	110.0	48.40	1½	2	8 - 4 - 44	12	100.0	44.00	8 - 4 - 44
Detroit, Mich.	125.0	55.00	1½	2	8 - 4 - 44	9	100.0	44.00	8 - 4 - 44
Milwaukee, Wis.	100.0	44.00	2	2	11 8 - 4 - 44	12	100.0	44.00	8 - 4 - 44
Omaha, Nebr.	125.0	55.00	2	2	8 - 4 - 44	12	100.0	44.00	8 - 4 - 44
St. Louis, Mo.	100.0	44.00	2	2	8 - 4 - 44	12	100.0	44.00	8 - 4 - 44

¹ Scale became 76.3 cents on June 1, 1918.

² Scale became 70 cents on June 1, 1918.

³ For Labor Day triple time.

⁴ Double time after midnight.

⁵ Scale became 62.5 cents on October 1, 1918.

⁶ Scale became 81.3 cents on June 1, 1918, and 87.5 cents on August 1, 1918.

⁷ Scale became 80 cents on June 1, 1918, and 82.5 cents on August 1, 1918.

⁸ 48 hours per week, December to February, inclusive.

⁹ Double time after 1 hour of overtime.

¹⁰ Scale became 75 cents on June 1, 1918.

¹¹ Work on Saturday afternoon prohibited.

¹² 48 hours per week, October to April, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
BUILDING LABORERS.												
Chicago, Ill.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Building work.....	50.0	22.00	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44			
Caisson digging.....	70.0	30.80	1½	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44			
Shoring and moving build- ings.....	56.3	24.75	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44			
Windlass, niggerhead, signal and trench, scaffold men.....	62.5	27.50	1½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44			
Cincinnati, Ohio.....	35.0	17.50	1½	2	9 - 5 - 50	12	30.0	15.00	9 - 5 - 50			
Cleveland, Ohio.....	55.0	24.20	1½	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44			
Des Moines, Iowa.....	40.0	20.00	1½	2	9 - 5 - 50	12	37.5	18.75	9 - 5 - 50			
Kansas City, Mo.:												
Building work.....	37.5	18.00	1½	2	8 - 8 - 48	.....	37.5	18.00	8 - 8 - 48		
Plumbers, laborers.....	45.0	21.60	1½	2	8 - 8 - 48	.....	40.0	19.20	8 - 8 - 48		
Omaha, Nebr.....	45.0	24.30	1½	1½	9 - 9 - 54	.....	30.0	16.20	9 - 9 - 54		
Peoria, Ill.....	47.5	20.90	2	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44			
St. Louis, Mo.:												
Union A.....	46.9	20.63	2	2	8 - 4 - 44	12	40.6	17.88	8 - 4 - 44			
Union B.....	40.0	17.60	1½	2	8 - 4 - 44	12	30.0	13.20	8 - 4 - 44			
Excavating.....	40.0	21.60	1½	2	9 - 9 - 54	.....	27.5	14.85	9 - 9 - 54		
Wrecking.....	33.3	17.98	1½	2	9 - 9 - 54	.....	22.5	12.15	9 - 9 - 54		
Wichita, Kans.....	43.8	21.00	1½	2	8 - 8 - 48	3	(11)	(11)	(11)			
CARPENTERS.												
Chicago, Ill.....	70.0	30.80	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
Cincinnati, Ohio.....	65.0	28.93	1½	2	8 - 4½ - 44½	12	62.5	27.80	8 - 4½ - 44½			
Cleveland, Ohio.....	80.0	35.20	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
Columbus, Ohio.....	65.0	28.60	1½	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44			
Davenport, Iowa, and Mo- line and Rock Island, Ill.....	67.5	29.70	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
Des Moines, Iowa.....	65.0	28.60	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
Detroit, Mich.....	60.0	26.40	2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44			
Grand Rapids, Mich.....	60.0	26.40	1½	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44			
Indianapolis, Ind.....	60.0	26.70	1½	2	8 - 4½ - 44½	12	57.5	25.59	8 - 4½ - 44½			
Kansas City, Mo.....	65.0	28.60	1½	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44			
Milwaukee, Wis.....	56.3	24.75	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44			
Minneapolis, Minn.....	60.0	26.40	1½	2	8 - 4 - 44	12	55.0	26.40	17 8 - 8 - 48			
Omaha, Nebr.....	60.0	26.40	1½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44			
Peoria, Ill.....	70.0	30.80	1½	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44			
St. Louis, Mo.....	70.0	30.80	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44			
St. Paul, Minn.....	60.0	26.40	1½	2	8 - 4 - 44	12	55.0	26.40	17 8 - 8 - 48			
Wichita, Kans.....	68.8	30.25	1½	2	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48			

¹ For Sundays, July 4, and Christmas; other holidays regular rate.

² Scale became 47.5 cents on June 15, 1918.

³ Scale became 50 cents on June 15, 1918.

⁴ Double time after midnight.

⁵ Scale became 50 cents on July 11, 1918.

⁶ Scale became 50 cents on July 1, 1918.

⁷ Time and one-half on Saturday afternoon from 12 to 5.

⁸ Scale became 45 cents on June 1, 1918.

⁹ Double time after 6 p. m.

¹⁰ 44 hours per week, June to August, inclusive.

¹¹ Not organized on May 15, 1917.

¹² Scale became 80 cents on June 1, 1918.

¹³ Scale became 70 cents on June 1, 1918.

¹⁴ Double time after first 2 hours.

¹⁵ Scale became 75 cents on June 1, 1918.

¹⁶ Scale became 62.5 cents on June 14, 1918.

¹⁷ 44 hours per week during July and August.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holid- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- days.			Per hour.	Per week, full time.		
CARPENTERS: MILLWRIGHTS.										
	<i>Cents</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.....	170.0	30.80	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Cleveland, Ohio.....	80.0	35.20	³ 1 ¹ / ₂	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Detroit, Mich.....	86.0	28.60	⁴ 1 ¹ / ₂	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.....	70.0	30.80	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	60.0	28.80	8 - 8 - 48	
St. Louis, Mo.....	70.0	30.80	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
St. Paul, Minn.....	70.0	30.80	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	60.0	28.80	8 - 8 - 48	
CARPENTERS: PARQUETRY- FLOOR LAYERS.										
Cleveland, Ohio.....	90.0	39.60	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Minneapolis, Minn.....	65.0	28.60	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	60.0	28.80	8 - 8 - 48	
St. Paul, Minn.....	65.0	28.60	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	60.0	28.80	8 - 8 - 48	
CARPENTERS: WHARF AND BRIDGE.										
Detroit, Mich.....	60.0	28.80	¹ 1 ¹ / ₂	2	8 - 8 - 48	.....	60.0	28.80	8 - 8 - 48	
CEMENT FINISHERS.										
Chicago, Ill.....	75.0	33.00	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	67.5	29.70	8 - 4 - 44	
Cincinnati, Ohio.....	57.5	28.75	¹ 1 ¹ / ₂	2	9 - 5 - 50	12	55.0	27.50	9 - 5 - 50	
Cleveland, Ohio.....	77.5	34.10	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Columbus, Ohio.....	50.0	27.00	¹ 1 ¹ / ₂	2	9 - 9 - 54	.....	50.0	27.00	9 - 9 - 54	
Dayenport, Iowa, and Mo- line and Rock Island, Ill...	⁸ 55.0	26.40	³ 1 ¹ / ₂	¹⁰ 2	8 - 8 - 48	.....	55.0	26.40	8 - 8 - 48	
Des Moines, Iowa.....	75.0	33.00	¹ 1 ¹ / ₂	¹ 1 ¹ / ₂	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Detroit, Mich.....	¹¹ 60.0	26.40	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	55.0	26.40	8 - 8 - 48	
Indianapolis, Ind.....	62.5	31.25	¹ 1 ¹ / ₂	¹⁰ 2	9 - 5 - 50	12	60.0	30.00	9 - 5 - 50	
Kansas City, Mo.....	75.0	33.00	¹³ 1 ¹ / ₂	¹⁰ 2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Milwaukee, Wis.....	¹⁸ 60.0	26.40	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48	
Minneapolis, Minn.....	¹⁴ 55.0	26.40	¹ 1 ¹ / ₂	2	8 - 8 - 48	.....	55.0	26.40	8 - 8 - 48	
Omaha, Nebr.....	¹⁶ 62.5	27.50	¹ 1 ¹ / ₂	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
St. Louis, Mo.....	75.0	33.00	⁹ 1 ¹ / ₂	¹⁰ 2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Composition work.....	75.0	33.00	⁹ 1 ¹ / ₂	¹⁰ 2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
St. Paul, Minn.....	¹⁴ 60.0	28.80	¹ 1 ¹ / ₂	2	8 - 8 - 48	.....	60.0	28.80	8 - 8 - 48	
Wichita, Kans.....	¹⁶ 62.5	30.00	¹ 1 ¹ / ₂	2	¹⁷ 8 - 8 - 48	⁴	62.5	30.00	¹⁷ 8 - 8 - 48	

¹ Scale became 80 cents on June 1, 1918.

² Double time after midnight.

³ Scale became 70 cents on June 1, 1918.

⁴ Double time after 8 p. m.

⁵ 44 hours per week during July and August.

⁶ Scale became 75 cents on June 1, 1918.

⁷ Scale became 80 cents on Sept. 1, 1918.

⁸ Scale became 70 cents on July 1, 1918.

⁹ Double time on Saturday after 5 p. m.

¹⁰ Time and one-half on Saturday afternoon.

¹¹ Scale became 70 cents on June 15, 1918.

¹² Double time on Saturday after 4:30 p. m.

¹³ Scale became 65 cents on June 1, 1918.

¹⁴ Scale became 65 cents on May 21, 1918.

¹⁵ Scale became 75 cents on July 1, 1918.

¹⁶ Scale became 75 cents on Sept. 1, 1918.

¹⁷ 44 hours per week, June to September, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
CEMENT FINISHERS' LABORERS.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Chicago, Ill.	50.0	22.00	1½	2	8-4-44	12	45.0	19.80	8-4-44			
Milwaukee, Wis.	50.0	24.00	1½	12	8-8-48	4	40.0	19.20	8-8-48			
St. Louis, Mo.	50.0	22.00	1½	2	8-4-44	12	40.0	17.60	8-4-44			
COMPOSITION ROOFERS.												
Chicago, Ill.	67.5	32.40	1½	2	8-8-48	3	67.5	32.40	8-8-48			
Foremen	77.5	37.20	1½	2	8-8-48	3	77.5	37.20	8-8-48			
Cincinnati, Ohio.	45.0	21.60	1½	2	8-8-48	-----	40.0	19.20	8-8-48			
Foremen	55.0	26.40	1½	2	8-8-48	-----	50.0	24.00	8-8-48			
Cleveland, Ohio.	50.0	22.00	1½	2	8-4-44	12	50.0	22.00	8-4-44			
Foremen	57.5	25.30	1½	2	8-4-44	12	57.5	25.30	8-4-44			
Davenport, Iowa, and Moline and Rock Island, Ill.	55.0	26.40	1½	2	8-8-48	-----	45.0	24.30	9-9-54			
Kansas City, Mo.	60.0	26.40	1½	2	8-4-44	12	45.0	21.60	8-8-48			
Foremen	70.0	30.80	1½	2	8-4-44	12	50.0	24.00	8-8-48			
Milwaukee, Wis.	55.0	24.20	1½	2	8-4-44	12	55.0	24.20	8-4-44			
St. Louis, Mo.	70.0	30.80	1½	2	8-4-44	12	60.0	28.40	8-4-44			
COMPOSITION ROOFERS' HELPERS.												
Chicago, Ill.	45.0	21.60	1½	2	8-8-48	3	45.0	21.60	8-8-48			
Milwaukee, Wis.	35.0	15.40	1½	2	8-4-44	12	35.0	15.40	8-4-44			
ELEVATOR CONSTRUCTORS.												
Chicago, Ill.	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44			
Cincinnati, Ohio.	65.0	28.60	2	2	8-4-44	12	62.5	27.50	8-4-44			
Cleveland, Ohio.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44			
Columbus, Ohio.	56.3	27.00	1½	1½	8-8-48	3	56.3	27.00	8-8-48			
Detroit, Mich.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44			
Grand Rapids, Mich.	62.5	30.00	1½	1½	8-8-48	-----	55.0	26.40	8-8-48			
Indianapolis, Ind.	60.0	26.40	2	2	8-4-44	12	60.0	26.40	8-4-44			
Kansas City, Mo.	70.0	30.80	2	2	8-4-44	12	70.0	30.80	8-4-44			
Milwaukee, Wis.	58.5	25.74	1½	1½	8-4-44	12	52.5	23.10	8-4-44			
Minneapolis, Minn.	66.0	29.04	2	2	8-4-44	12	57.5	25.30	8-4-44			
Omaha, Nebr.	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44			
St. Louis, Mo.	70.0	30.80	2	2	8-4-44	12	70.0	30.80	8-4-44			
St. Paul, Minn.	66.0	29.04	2	2	8-4-44	12	57.5	25.30	8-4-44			

¹ Time and one-half on Saturday afternoon, June to September, inclusive.

² 44 hours per week, June to September, inclusive.

³ Scale became 55 cents on July 15, 1918.

⁴ Scale became 77.5 cents on June 1, 1918.

⁵ 44 hours per week, June to August, inclusive.

⁶ Scale became 87.5 cents on June 1, 1918.

⁷ Scale became 60 cents on May 25, 1918.

⁸ Time and one-half on Saturday afternoon.

⁹ Scale became 65 cents on May 25, 1918.

¹⁰ Scale became 70 cents on July 10, 1918.

¹¹ Scale became 60 cents on June 1, 1918.

¹² Scale became 50 cents on June 1, 1918.

¹³ Scale became 45 cents on June 1, 1918.

¹⁴ On new work; on repair work, double time.

¹⁵ Scale became 65 cents on June 1, 1918.

¹⁶ Double time after midnight.

¹⁷ Scale became 75 cents on June 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE
 NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—					Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.	Hours— Full days; Saturdays; Full week.		Per hour.	Per week, full time.		
ELEVATOR CONSTRUCTORS' HELPERS.	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.	50.0	22.00	2	2	8-4-44	12	45.0	19.80	8-4-44	
Cincinnati, Ohio.	40.0	17.60	2	2	8-4-44	12	40.0	17.60	8-4-44	
Cleveland, Ohio.	50.0	22.00	2	2	8-4-44	12	42.5	18.70	8-4-44	
Columbus, Ohio.	40.0	19.20	1½	1½	8-8-48	3	40.0	19.20	8-8-48	1
Detroit, Mich.	50.0	22.00	2	2	8-4-44	12	42.5	18.70	8-4-44	
Grand Rapids, Mich.	35.0	16.80	1½	1½	8-8-48	.....	35.0	16.80	8-8-48	
Indianapolis, Ind.	40.0	17.60	2	2	8-4-44	12	40.0	17.60	8-4-44	
Kansas City, Mo.	45.0	19.80	2	2	8-4-44	12	45.0	19.80	8-4-44	
Milwaukee, Wis.	40.0	17.60	1½	1½	8-4-44	12	36.3	15.95	8-4-44	
Minneapolis, Minn.	43.5	19.14	2	2	8-4-44	12	39.0	17.16	8-4-44	
Omaha, Nebr.	42.5	18.70	2	2	8-4-44	12	38.0	16.72	8-4-44	
St. Louis, Mo.	45.0	19.80	2	2	8-4-44	12	45.0	19.80	8-4-44	
St. Paul, Minn.	43.5	19.14	2	2	8-4-44	12	39.0	17.16	8-4-44	
ENGINEERS, PORTABLE AND HOISTING.										
Chicago, Ill.	75.0	33.00	1½	2	8-4-44	8	75.0	33.00	8-4-44	
Cincinnati, Ohio.	60.0	27.00	1½	2	8-5-45	12	57.8	26.00	8-5-45	
Cleveland, Ohio:										
Boom derrick.	90.0	39.60	1½	2	8-4-44	12	75.0	33.00	8-4-44	
Hoist.	85.0	37.40	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Columbus, Ohio.	75.0	36.00	1½	2	8-8-48	.....	65.0	31.20	8-8-48	
Davenport, Iowa, and Moline and Rock Island, Ill.	65.0	28.60	1½	2	8-4-44	12	60.0	28.80	8-8-48	
Des Moines, Iowa.	70.0	37.80	1½	2	9-9-54	.....	70.0	37.80	9-9-54	
Detroit, Mich.:										
Boom derrick.	100.0	44.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
Hoist.	75.0	33.00	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Grand Rapids, Mich.:										
Boom derrick.	55.0	29.70	1½	2	9-9-54	.....	50.0	25.00	9-5-50	
Hoist.	45.0	24.30	1½	2	9-9-54	.....	40.0	21.60	9-9-54	
Indianapolis, Ind.	72.5	31.90	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Kansas City, Mo.	75.0	33.00	1½	2	8-4-44	12	75.0	33.00	8-4-44	
Milwaukee, Wis.:										
Boom derrick.	80.0	35.20	1½	2	8-4-44	6	67.5	29.70	8-4-44	10
Hoist.	75.0	33.00	1½	2	8-4-44	6	62.5	27.50	8-4-44	10
Minneapolis, Minn.	60.0	32.40	1½	2	9-9-54	.....	60.0	32.40	9-9-54	
Omaha, Nebr.	62.5	27.50	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Peoria, Ill.	75.0	33.00	1½	2	8-4-44	12	62.5	27.50	8-4-44	
St. Louis, Mo.:										
1 engine.	87.5	38.50	2	2	8-4-44	12	75.0	33.00	8-4-44	
2 engines.	100.0	44.00	2	2	8-4-44	12	87.5	38.50	8-4-44	
St. Paul, Minn.	67.5	32.40	1½	2	8-8-48	2	62.5	33.75	9-9-54	13
GLAZIERS.										
Wichita, Kans.	48.0	21.12	1½	2	8-4-44	12	(14)	(14)	(14)	

1 44 hours per week, June to August, inclusive.

2 On new work; on repair work, double time.

3 Scale became 45 cents on June 1, 1918.

4 Scale became 50 cents on June 1, 1918.

5 Double time after midnight.

6 Scale became 87.5 cents on June 1, 1918.

7 Time and one-half on Saturday afternoon.

8 48 hours per week, December to March, inclusive.

9 Scale became 81.3 cents on June 1, 1918.

10 48 hours per week, November to April, inclusive.

11 Scale became 65 cents on July 1, 1918.

12 Scale became 75 cents on June 15, 1918.

13 44 hours per week during July and August.

14 No scale in effect on May 15, 1917.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
HOD CARRIERS.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.....	50.0	22.00	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Cincinnati, Ohio:										
Brick men.....	50.0	22.50	1½	2	8 - 5 - 45	12	42.5	19.13	8 - 5 - 45	
Mortar men.....	50.0	22.50	1½	2	8 - 5 - 45	12	45.0	20.25	8 - 5 - 45	
Cleveland, Ohio:										
Brick men.....	55.0	24.20	1½	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44	
Mortar men.....	55.0	24.20	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Columbus, Ohio.....	50.0	22.00	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Des Moines, Iowa.....	50.0	22.00	1½	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44	
Detroit, Mich.:										
Brick men.....	50.0	22.00	1½	2	8 - 4 - 44	9	40.0	17.60	8 - 4 - 44	
Mortar men.....	50.0	22.00	1½	2	8 - 4 - 44	9	43.8	19.27	8 - 4 - 44	
Indianapolis, Ind.:										
Brick men.....	47.5	20.90	3 1½	2	8 - 4 - 44	12	42.5	18.70	8 - 4 - 44	
Mortar men.....	50.0	22.00	3 1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Kansas City, Mo.....	45.0	22.00	1½	2	8 - 4 - 44	12	47.5	20.90	8 - 4 - 44	
Milwaukee, Wis.:										
Brick men.....	50.0	24.00	1½	2	8 - 8 - 48	4	40.0	19.20	8 - 8 - 48	
Mortar men.....	50.0	24.00	1½	2	8 - 8 - 48	4	42.5	20.40	8 - 8 - 48	
Omaha, Nebr.....	75.0	22.00	1½	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44	
Peoria, Ill.....	47.5	20.90	2	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44	
St. Louis, Mo.:										
Brick men.....	85.0	24.20	2	2	8 - 4 - 44	12	47.5	20.90	8 - 4 - 44	
Mortar men.....	85.0	24.20	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
St. Paul, Minn.....	84.0	17.88	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44	
Wichita, Kans.....	50.0	24.00	1½	2	8 - 8 - 48	3	(11)	(11)	(11)	
INSIDE WIREMEN.										
Chicago, Ill.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio.....	68.8	30.59	2	2	8 - 4½ - 44½	12	62.5	27.81	8 - 4½ - 44½	
Cleveland, Ohio.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Davenport, Iowa, and Mo- line and Rock Island, Ill.	67.5	29.70	12 1½	18 2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Des Moines, Iowa.....	65.0	28.60	12 1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Detroit, Mich.....	75.0	33.00	14 1½	2	8 - 4 - 44	12	66.9	29.43	8 - 4 - 44	
Grand Rapids, Mich.....	60.0	26.40	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Indianapolis, Ind.....	67.5	29.70	15 1½	2	8 - 4 - 44	12	57.0	25.08	8 - 4 - 44	
Kansas City, Mo.....	75.0	33.00	15 1½	12 2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Milwaukee, Wis.....	86.8	24.75	12 1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Minneapolis, Minn.....	68.8	30.25	12 1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Omaha, Nebr.....	70.0	30.80	1½	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44	
Peoria, Ill.....	65.0	28.60	15 1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
St. Louis, Mo.....	175.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Paul, Minn.....	68.8	30.25	12 1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Wichita, Kans.....	186.8	33.00	15 1½	2	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48	

¹ Scale became 56.3 cents on June 1, 1918.

² 48 hours per week, December to February, inclusive.

³ Double time after 7 p. m.

⁴ Scale became 55 cents on June 1, 1918.

⁵ Time and one-half on Saturday afternoon, June to September, inclusive.

⁶ 44 hours per week, June to September, inclusive.

⁷ Scale became 55 cents on July 11, 1918.

⁸ Scale became 65 cents on July 18, 1918.

⁹ Scale became 50 cents on June 1, 1918.

¹⁰ 44 hours per week, June to August, inclusive.

¹¹ Not organized on May 15, 1917.

¹² Double time after 10 p. m.

¹³ Time and one-half on Saturday afternoon.

¹⁴ Double time after 8 p. m.

¹⁵ Double time after midnight.

¹⁶ Scale became 75 cents on July 1, 1918.

¹⁷ Scale became 86.3 cents on July 15, 1918.

¹⁸ Scale became 87.5 cents on Aug. 16, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.					May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holl- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holl- days.			Per hour.	Per week, full time.	
INSIDE WIREMEN, FIXTURE HANGERS.	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Chicago, Ill.	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Cleveland, Ohio.	70.0	30.80	2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44
Detroit, Mich.	68.8	30.25	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44
Grand Rapids, Mich.	60.0	26.40	1 1/2	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44
Indianapolis, Ind.	60.0	26.40	1 1/2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44
Kansas City, Mo.	62.5	27.50	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44
Minneapolis, Minn.	68.8	30.25	1 1/2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44
Omaha, Nebr.	50.0	22.00	1 1/2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44
Peoria, Ill.	65.0	28.60	1 1/2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44
St. Louis, Mo.	65.0	28.60	1 1/2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44
St. Paul, Minn.	65.0	24.00	1 1/2	2	8 - 8 - 48	50.0	.....	24.00	8 - 8 - 48
LATHERS.									
Chicago, Ill.	78.0	35.20	2	2	8 - 4 - 44	12	71.9	31.63	8 - 4 - 44
Cincinnati, Ohio:									
Metal.	68.8	30.59	1 1/2	2	8 - 4 1/2 - 44 1/2	12	62.5	27.81	8 - 4 1/2 - 44 1/2
Wood.	(*)		1 1/2	2	8 - 4 1/2 - 44 1/2	12	(*)	.....	8 - 4 1/2 - 44 1/2
Cleveland, Ohio:									
Metal or wood, first class.	85.0	37.40	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Metal or wood, second class.	75.0	33.00	2	2	8 - 4 - 44	12	65.6	28.88	8 - 4 - 44
Des Moines, Iowa.	68.8	30.25	2	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44
Detroit, Mich.:									
Metal or wood, first class.	75.0	33.00	2	2	10 8 - 4 - 44	12	68.8	30.25	8 - 4 - 44
Metal or wood, second class.	66.3	29.15	2	2	10 8 - 4 - 44	12	60.0	26.40	8 - 4 - 44
Grand Rapids, Mich.:									
Metal, first class.	55.0	26.40	1 1/2	2	8 - 8 - 48	.....	55.0	26.40	8 - 8 - 48
Metal, second class.	45.0	21.60	1 1/2	2	8 - 8 - 48	.....	45.0	21.60	8 - 8 - 48
Wood.	50.0	24.00	1 1/2	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48
Indianapolis, Ind.:									
Metal.	62.5	27.81	2	2	8 - 4 1/2 - 44 1/2	12	62.5	27.81	8 - 4 1/2 - 44 1/2
Wood.	50.0	22.25	2	2	8 - 4 1/2 - 44 1/2	12	50.0	22.25	8 - 4 1/2 - 44 1/2
Kansas City, Mo.:									
Metal.	68.8	30.25	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44
Wood.	68.8	30.25	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44
Milwaukee, Wis.:									
Metal, first class.	1256.3	24.75	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44
Wood, second class.	1253.1	23.38	2	2	8 - 4 - 44	12	53.1	23.38	8 - 4 - 44
Wood, third class.	1246.9	20.63	2	2	8 - 4 - 44	12	46.9	20.63	8 - 4 - 44
Minneapolis, Minn.:									
Metal.	62.5	27.50	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44
Wood, first class.	1950.0	22.00	1 1/2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44
Wood, second class.	1243.8	19.25	1 1/2	2	8 - 4 - 44	12	43.8	19.25	8 - 4 - 44
Omaha, Nebr.	70.0	30.80	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44
Peoria, Ill.	71.9	31.63	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44
St. Louis, Mo.:									
Metal.	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Wood.	(*)		2	2	8 - 4 - 44	12	(*)	.....	8 - 4 - 44

1 Double time after 8 p. m.

2 Double time after midnight.

3 Time and one-half on Saturday afternoon.

4 Double time after 10 p. m.

5 Scale became 77.5 cents on July 15, 1918.

6 Scale became 52.5 cents on May 22, 1918.

7 Scale to become 81.3 cents on November 15, 1918.

8 \$3.75 per 1,000 laths. Scale became 6 cents per yard for 3-foot laths, and 7 cents per yard for 4-foot laths on June 1, 1918.

9 \$3.50 per 1,000 laths.

10 Work on Saturday afternoon prohibited.

11 Scale became 75 cents on June 1, 1918.

12 Scale became 62.5 cents on July 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holl- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holl- days.			Per hour.	Per week, full time.				
LATHERS—concluded.												
St. Paul, Minn.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>					<i>Cents.</i>	<i>Dolls.</i>			
Metal.....	62.5	30.00	2	2	8-8-48			62.5	30.00	8-8-48		
Wood, first class.....	56.3	27.00	2	2	8-8-48			56.3	27.00	8-8-48		
Wood, second class.....	50.0	24.00	2	2	8-8-48			50.0	24.00	8-8-48		
Wichita, Kans.....	75.0	33.00	1½	2	8-4-44	12		62.5	27.50	8-4-44		
MARBLE SETTERS.												
Chicago, Ill.....	75.0	33.00	4 1/3	2	8-4-44	12	71.9	31.63		8-4-44		
Cincinnati, Ohio.....	75.0	33.00	1½	2	8-4-44	12	68.8	30.25		8-4-44		
Cleveland, Ohio.....	75.0	33.00	1½	2	8-4-44	12	68.8	30.25		8-4-44		
Davenport, Iowa, and Moline and Rock Island, Ill.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25		8-4-44		
Des Moines, Iowa.....	81.3	35.75	2	2	8-4-44	12	77.5	34.10		8-4-44		
Detroit, Mich.....	75.0	33.00	1½	2	8-4-44	9	68.8	30.25		8-4-44		
Grand Rapids, Mich.....	75.0	33.00	1½	2	8-4-44	12	68.8	30.25		8-4-44		
Indianapolis, Ind.....	75.0	33.00	6 1/3	2	8-4-44	12	68.8	30.25		8-4-44		
Kansas City, Mo.....	75.0	33.00	1½	2	8-4-44	12	68.8	30.25		8-4-44		
Milwaukee, Wis.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25		8-4-44		
Minneapolis, Minn.....	71.9	31.63	1½	2	8-4-44	5	68.8	30.25		8-4-44		
Omaha, Neb.....	68.8	30.25	1½	2	8-4-44	12	68.8	30.25		8-4-44		
St. Louis, Mo.....	75.0	33.00	1½	2	8-4-44	12	68.8	30.25		8-4-44		
St. Paul, Minn.....	75.0	33.00	1½	2	8-4-44	12	68.8	33.00		8-8-48		
MARBLE SETTERS' HELPERS.												
Chicago, Ill.....	50.0	22.00	4 1/3	2	8-4-44	12	45.0	19.80		8-4-44		
Cincinnati, Ohio.....	35.0	15.75	1½	2	8-5-45	12	31.3	14.06		8-5-45		
St. Louis, Mo.....	40.0	17.60	1½	2	8-4-44	12	35.0	15.40		8-4-44		
MOSAIC AND TERRAZZO WORKERS.												
Chicago, Ill.....	68.8	30.25	1½	2	8-4-44	12	68.8	30.25		8-4-44		
Cincinnati, Ohio.....	50.0	22.00	1½	1½	8-4-44	12	50.0	25.00		9-5-50		
Detroit, Mich.....	67.0	29.48	1½	1½	8-4-44	12	59.5	28.56		8-8-48		
Kansas City, Mo.....	65.0	28.60	10 1/2	2	8-4-44	12	60.0	26.40		8-4-44		
PAINTERS.												
Chicago, Ill.....	75.0	33.00	1½	2	8-4-44	12	72.5	31.90		8-4-44		
Cincinnati, Ohio.....	60.0	26.40	1½	11 2	8-4-44	12	55.0	24.20		8-4-44		
Cleveland, Ohio.....	67.5	29.70	1½	12 2	8-4-44	12	55.0	24.20		8-4-44		
Columbus, Ohio.....	60.0	26.40	1½	2	8-4-44	12	50.0	22.00		8-4-44		
Davenport, Iowa, and Mo- line and Rock Island, Ill.....	65.0	28.60	2	2	8-4-44	12	55.0	24.20		8-4-44		
Des Moines, Iowa.....	65.0	28.60	1½	2	8-4-44	12	50.0	22.00		8-4-44		
Detroit, Mich.....	70.0	30.80	1½	2	8-4-44	12	60.0	26.40		8-4-44		

¹ Scale became 75 cents on June 1, 1918.

² 5½ cents per square yard for 4-foot laths; 7 cents per square yard for 32-inch laths; time rate for all other lathing.

³ 4½ cents per square yard for 4-foot laths; 5 cents per square yard for 32-inch laths and 5-nail work; 6 cents per square yard for metal lath, nailed on; time rate for all other lathing.

⁴ Double time after 10 p. m.

⁵ 48 hours per week, December to February, inclusive.

⁶ Double time after 7 p. m.

⁷ 48 hours per week, October to April, inclusive.

⁸ Scale became 37.5 cents on October 1, 1918.

⁹ Scale became 75 cents on June 15, 1918.

¹⁰ Double time after midnight.

¹¹ For Sundays and Saturday afternoons; work on other holidays prohibited.

¹² Work on Labor Day prohibited.

¹³ Work on Saturday afternoon prohibited.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
PAINTERS—concluded.	Cents.	Dolls.	Regular rate multiplied by—				Cents.	Dolls.		
Grand Rapids, Mich.....	55.0	26.40	1 1/2	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48	
Indianapolis, Ind.....	55.0	24.20	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Kansas City, Mo.....	70.0	30.80	1 1/2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Milwaukee, Wis.....	60.0	26.40	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Minneapolis, Minn.....	62.5	27.50	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Omaha, Nebr.....	62.5	27.50	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Peoria, Ill.....	65.0	28.60	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
St. Louis, Mo.....	75.0	33.00	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
St. Paul, Minn.....	62.5	27.50	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Wichita, Kans.....	65.0	28.60	1 1/2	2	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48	
PAINTERS, FRESCO.										
Cincinnati, Ohio.....	65.0	28.60	1 1/2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Indianapolis, Ind.....	55.0	24.20	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
St. Paul, Minn.....	62.5	27.50	1 1/2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
PAINTERS, SIGN.										
Chicago, Ill.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio.....	65.6	28.88	1 1/2	2	8 - 4 - 44	12	65.6	28.88	8 - 4 - 44	
Cleveland, Ohio.....	75.0	33.00	1 1/2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Detroit, Mich.....	75.0	33.00	1 1/2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Grand Rapids, Mich.....	56.3	24.75	1 1/2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Indianapolis, Ind.....	62.5	27.50	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Kansas City, Mo.....	81.3	35.75	1 1/2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Milwaukee, Wis.....	68.8	30.25	1 1/2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.....	65.0	28.60	1 1/2	6 1/2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Omaha, Nebr.....	75.0	33.00	1 1/2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Peoria, Ill.....	65.0	28.60	1 1/2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
St. Louis, Mo.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Paul, Minn.....	65.0	28.60	1 1/2	6 1/2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Wichita, Kans.....	70.0	33.60	1 1/2	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48	
PLASTERERS.										
Chicago, Ill.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio.....	75.0	33.38	1 1/2	2	8 - 4 1/2 - 44 1/2	12	75.0	33.38	8 - 4 1/2 - 44 1/2	
Columbus, Ohio.....	75.0	33.00	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Cleveland, Ohio.....	85.0	37.40	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Davenport, Iowa, and Mo- line and Rock Island, Ill.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Des Moines, Iowa.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Detroit, Mich.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Grand Rapids, Mich.....	70.0	30.80	1 1/2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Indianapolis, Ind.....	75.0	33.38	2	2	8 - 4 1/2 - 44 1/2	12	72.0	32.04	8 - 4 1/2 - 44 1/2	
Kansas City, Mo.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Milwaukee, Wis.....	107.0	30.80	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Minneapolis, Minn.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Omaha, Nebr.....	118.0	35.20	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Peoria, Ill.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Louis, Mo.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Paul, Minn.....	75.0	33.00	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Wichita, Kans.....	87.5	36.00	1 1/2	2	12 8 - 8 - 48	4	62.5	27.50	12 8 - 8 - 48	

¹ Double time after midnight.

² Scale became 75 cents on Sept. 1, 1918.

³ Work on holidays prohibited.

⁴ Work on Labor Day prohibited.

⁵ Work on Saturday afternoon prohibited.

⁶ For Sundays; for holidays double time.

⁷ Scale became 87.5 cents on July 1, 1918.

⁸ Scale became 87.5 cents on September 1, 1918.

⁹ Double time after 7.30 p. m.

¹⁰ Scale became 75 cents on July 1, 1918.

¹¹ Scale became 87.5 cents on July 12, 1918.

¹² 44 hours per week, June to September, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
PLASTERERS' LABORERS.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.	53.3	24.75	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Cincinnati, Ohio.	50.0	22.50	1½	2	8 - 5 - 45	12	45.0	20.25	8 - 5 - 45	
Cleveland, Ohio.	55.0	24.20	1½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Detroit, Mich.	50.0	22.00	1½	2	8 - 4 - 44	9	50.0	22.00	8 - 4 - 44	
Indianapolis, Ind.	50.0	22.00	3½	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Kansas City, Mo.	55.0	24.20	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Milwaukee, Wis.	50.0	24.00	1½	2	8 - 8 - 48	4	42.9	20.20	8 - 8 - 48	
Minneapolis, Minn.	55.0	24.20	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Peoria, Ill.	50.6	22.28	2	2	8 - 4 - 44	12	43.1	18.98	8 - 4 - 44	
St. Louis, Mo.	62.5	27.50	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Wichita, Kans.	50.0	24.00	1½	5 2	8 - 8 - 48	3	(7)	(7)	(7)	
PLUMBERS AND GAS FITTERS.										
Chicago, Ill.	87.5	33.00	2	9 2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio.	65.6	28.87	10 1½	2	8 - 4 - 44	12	65.6	28.87	8 - 4 - 44	
Cleveland, Ohio.	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Columbus, Ohio.	81.3	35.75	1½	2	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
Davenport, Iowa.	75.0	33.00	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Des Moines, Iowa.	75.0	33.00	10 1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Detroit, Mich.	75.0	33.00	13 1	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Grand Rapids, Mich.	62.5	27.50	10 1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Indianapolis, Ind.	75.0	33.00	2	2	8 - 4 - 44	12	67.5	23.70	8 - 4 - 44	
Kansas City, Mo.	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Milwaukee, Wis.	68.8	30.25	10 1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.	68.8	30.25	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Moline, Ill.	75.0	33.00	1½	15 1½	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Omaha, Nebr.	75.0	33.00	10 1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Peoria, Ill.	70.0	30.80	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Rock Island, Ill.	75.0	33.00	1½	15 1½	8 - 4 - 44	12	68.2	30.00	8 - 4 - 44	
St. Louis, Mo.:										
Plumbers.	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Gas fitters.	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Paul, Minn.	68.8	30.25	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Wichita, Kans.:										
Plumbers.	77.5	36.00	1½	1½	18 8 - 8 - 48	3	62.5	30.00	18 8 - 8 - 48	
Gas fitters.	62.5	30.00	1½	1½	18 8 - 8 - 48	3	50.0	24.00	18 8 - 8 - 48	

¹ Time and one-half on Saturday afternoon, March to November, inclusive.

² 48 hours per week, December to February, inclusive.

³ Double time after 7 p. m.

⁴ 44 hours per week, June to September, inclusive.

⁵ Time and one-half on Saturday afternoon, June to August, inclusive.

⁶ 44 hours per week, June to August, inclusive.

⁷ Not organized on May 15, 1917.

⁸ Scale became 81.3 cents on June 1, 1918.

⁹ Time and one-half for plumbers, on repair work, on Saturday afternoon.

¹⁰ Double time after midnight.

¹¹ Scale became 90 cents on June 1, 1918.

¹² Scale became 78.1 cents on July 1, 1918; to become 80 cents on October 1, 1918.

¹³ For one hour or less; for more than one hour, double time for whole period of overtime.

¹⁴ Scale became 75 cents on July 1, 1918.

¹⁵ For Sundays; for holidays, double time.

¹⁶ Scale became 87.5 cents on July 1, 1918.

¹⁷ Scale became 87.5 cents on June 1, 1918.

¹⁸ 44 hours per week, June 15 to Sept. 15, inclusive.

¹⁹ Scale became 75 cents on June 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holid- ay.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- ays.			Per hour.	Per week, full time.		
SHEET-METAL WORKERS. ¹										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.:										
Building work.....	70.0	30.80	2	2	8-4-44	12	70.0	30.80	8-4-44	
Auto shops.....	55.5	27.47	1½	2	9-4½-49½	12	52.8	26.11	9-4½-49½	
Manufacturing shops.....	65.0	28.60	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Cincinnati, Ohio.....	52.5	25.20	1½	2	8-8-48		50.0	24.00	8-8-48	
Cleveland, Ohio.....	80.0	35.20	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Columbus, Ohio.....	37.5	18.00	1½	1½	8-8-48		37.5	18.00	8-8-48	
Davenport, Iowa, and Mo- line and Rock Island, Ill.:	65.0	28.60	1½	2	8-4-44	12	40.0	19.20	8-8-48	
Des Moines, Iowa.....	65.0	28.60	1½	2	8-4-48	12	57.5	25.30	8-4-44	
Detroit, Mich.:	70.0	30.80	1½	2	8-4-48	12	60.0	26.40	8-4-44	
Indianapolis, Ind.:										
Building work.....	60.0	26.40	1½	2	8-8-48	12	57.5	25.30	8-4-44	
Railroad shops, road B.....	68.0	32.64	1	1½	8-8-48		35.0	18.90	9-9-54	
Railroad shops, road C.....	68.0	32.64	1	1½	8-8-48		37.5	23.63	9-9-63	
Kansas City, Mo.:										
Building work.....	67.5	29.70	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Railroad shops, road B.....	68.0	32.64	1½	1½	8-8-48		42.5	20.40	8-8-48	
Railroad shops, road D.....	68.0	32.64	1	1½	8-8-48		39.5	21.33	9-9-54	
Railroad shops, road E.....	68.0	32.64	1	1½	8-8-48		40.0	21.55	9-8-53	
Railroad shops, road E.....	68.0	32.64	10½	1½	8-8-48		40.0	22.80	11½-8-57	
Railroad shops, road F.....	68.0	32.64	1½	1½	8-8-48		38.0	20.48	9-8-53	
Railroad shops, road H.....	68.0	32.64	1	1½	8-8-48		40.0	21.60	9-9-54	
Railroad shops, road I.....	68.0	32.64	1½	1½	8-8-48		40.0	21.60	9-9-54	
Milwaukee, Wis.:										
Building work.....	60.0	28.80	1½	2	12-8-8-48	3	52.5	25.20	12-8-8-48	
Railroad shops (cardept.).....	68.0	32.64	1	1½	8-8-48		30.5	16.47	14-8-8-53	
Railroad shops (locomotive dept.).....	68.0	32.64	1½	1½	8-8-48		33.5	16.75	16-9-5-50	
Minneapolis, Minn.:	56.3	24.75	1½	18	8-4-44	12	50.0	24.00	8-8-48	
Omaha, Nebr.:	65.0	28.60	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Peoria, Ill.:	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
St. Louis, Mo.:										
Building work.....	765.0	28.60	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Railroad shops, road A.....	68.0	32.64	1	1½	8-8-48		39.0	21.06	9-9-54	
Railroad shops, road B.....	68.0	32.64	1	1½	8-8-48		40.0	21.55	9-8-53	
Railroad shops, road C.....	68.0	32.64	10½	1½	8-8-48		42.0	22.68	9-9-54	
Railroad shops, road G.....	68.0	32.64	2	2	8-8-48		52.5	25.20	8-8-48	
Railroad shops, road H.....	68.0	36.64	1	1½	8-8-48		38.0	20.48	9-8-53	
Railroad shops, road I.....	68.0	32.64	1	1½	8-8-48		42.0	22.68	9-9-54	
St. Paul, Minn.:	1956.3	24.75	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Wichita, Kans.:										
Building work.....	68.8	33.00	1½	2	8-8-48		56.3	27.00	8-8-48	
Railroad shops, road B.....	68.0	32.64	1½	20½	8-8-48		37.5	17.92	21-8-7-47	
Railroad shops, road C.....	68.0	32.64	1	20½	8-8-48		38.5	20.75	9-8-53	

¹ For explanation of changes in rates in railroad shops, see p. 139.

² Scale became 75 cents on June 1, 1918.

³ Double time after 10 p. m.

⁴ Double time after midnight.

⁵ 44 hours per week, July to September, inclusive.

⁶ Double time after 9 p. m.

⁷ Time and one-half after 1 hour.

⁸ Time and one-half after 1 hour; on Saturday for all overtime.

⁹ Work 53 hours, paid for 53 hours and 53 minutes.

¹⁰ Time and one-half after 1 hour and 40 minutes; on Saturday after 40 minutes.

¹¹ Work 57 hours, paid for 57 hours and 57 minutes.

¹² 44 hours per week, June to August, inclusive.

¹³ 44 hours per week, June 15 to Sept. 15, inclusive.

¹⁴ Work 53 hours, paid for 54.

¹⁵ Work 47 hours, paid for 48, October to April, inclusive.

¹⁶ Four times single rate after 5 p. m.

¹⁷ Scale became 75 cents on July 1, 1918.

¹⁸ Double time after 8 hours of overtime.

¹⁹ Scale became 65 cents on June 1, 1918.

²⁰ With a minimum of 5 hours' pay for 3½ hours' or less work.

²¹ Work 47 hours, paid for 47 hours and 47 minutes.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.					May 15, 1917.				
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- ay.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- ays.			Per hour.	Per week, full time.		
SHIP CARPENTERS.										
St. Louis, Mo.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Inside shipyards.....	150.0	22.00	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Outside shipyards.....	256.3	24.75	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
SLATE AND TILE ROOFERS.										
Chicago, Ill.	72.5	31.90	2	2	8 - 4 - 44	12	72.5	31.90	8 - 4 - 44	
Cincinnati, Ohio.....	60.0	26.40	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Cleveland, Ohio.....	85.0	37.40	1½	2	8 - 4 - 44	12	80.0	35.20	8 - 4 - 44	
Detroit, Mich.....	62.5	30.00	1½	2	8 - 8 - 48	4	62.5	30.00	8 - 8 - 48	
Kansas City, Mo.....	67.5	29.70	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Milwaukee, Wis.....	60.0	28.80	1½	2	8 - 8 - 48	3	52.5	25.20	8 - 8 - 48	
St. Louis, Mo.....	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
STEAM FITTERS AND SPRINKLER FITTERS.										
Chicago, Ill.:										
Steam fitters.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Sprinkler fitters.....	80.0	35.20	2	2	8 - 4 - 44	12	80.0	35.20	8 - 4 - 44	
Cincinnati, Ohio.....	65.5	28.82	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Cleveland, Ohio.....	81.3	35.75	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Columbus, Ohio.....	70.0	30.80	1½	10	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
Davenport, Iowa.....	75.0	33.00	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Des Moines, Iowa.....	75.0	33.00	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Detroit, Mich.....	75.0	33.00	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Grand Rapids, Mich.....	62.5	27.50	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Indianapolis, Ind.:										
Steam fitters.....	75.0	33.00	2	2	8 - 4 - 44	12	67.5	29.70	8 - 4 - 44	
Sprinkler fitters.....	68.8	30.25	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Kansas City, Mo.:										
Steam fitters.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Sprinkler fitters.....	80.0	35.20	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Milwaukee, Wis.:										
Steam fitters.....	62.5	27.50	1½	2	8 - 4 - 44	12	59.4	26.14	8 - 4 - 44	
Sprinkler fitters.....	68.8	30.25	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.....	1068.8	30.25	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Moline, Ill.....	75.0	33.00	1½	14	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Omaha, Nebr.....	1075.0	33.00	1½	16	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Peoria, Ill.:										
Steam fitters.....	70.0	30.80	2	2	8 - 4 - 44	12	66.3	29.15	8 - 4 - 44	
Sprinkler fitters.....	56.3	24.75	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Rock Island, Ill.....	75.0	33.00	1½	14	8 - 4 - 44	12	68.2	30.00	8 - 4 - 44	
St. Louis, Mo.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
St. Paul, Minn.....	1068.8	30.25	2	2	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
Wichita, Kans.....	75.0	36.00	1½	1½	8 - 8 - 48	3	62.5	30.00	8 - 8 - 48	

¹ Scale became 56.3 cents on June 17, 1918.

² Scale became 62.5 cents on June 17, 1918.

³ Scale became 90 cents on Aug. 1, 1918.

⁴ Double time after 6 p. m.

⁵ 44 hours per week, May to August, inclusive.

⁶ Double time after midnight.

⁷ 44 hours per week, June to August, inclusive.

⁸ 44 hours per week, June 15 to Sept. 15, inclusive.

⁹ Scale became 81.3 cents on June 1, 1918; to become 85 cents on Dec. 1, 1918.

¹⁰ Time and one-half on Saturday afternoon.

¹¹ Scale became 78.1 cents on July 1, 1918; to become 80 cents on Oct. 1, 1918.

¹² For one hour or less; for more than one hour, double time for whole period of overtime.

¹³ Scale became 75 cents on July 1, 1918.

¹⁴ For Sundays; for holidays, double time.

¹⁵ Scale became 87.5 cents on July 1, 1918.

¹⁶ Time and one-half on Saturday afternoon until 5 p. m.; double time thereafter

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
STEAM FITTERS' AND SPRINKLER FITTERS' HELPERS.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Chicago, Ill.: Steam fitters' helpers.....	40.0	17.60	2	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44			
Sprinkler fitters' helpers...	45.0	19.80	2	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44			
Cincinnati, Ohio.....	33.5	14.74	² 1½	2	8 - 4 - 44	12	31.5	13.86	8 - 4 - 44			
Cleveland, Ohio.....	43.8	19.25	2	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Detroit, Mich.....	45.0	19.80	¹ 1	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Indianapolis, Ind.....	37.5	16.50	2	2	8 - 4 - 44	12	33.8	14.85	8 - 4 - 44			
Kansas City, Mo.: Steam fitters' helpers.....	⁴ 37.5	16.50	2	⁵ 2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
Sprinkler fitters' helpers....	40.0	17.60	2	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Milwaukee, Wis.: Steam fitters' helpers.....	31.3	13.75	² 1½	2	8 - 4 - 44	12	31.3	13.75	8 - 4 - 44			
Sprinkler fitters' helpers....	37.5	16.50	2	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Minneapolis, Minn.....	⁵ 35.0	15.40	2	2	8 - 4 - 44	12	31.3	13.75	8 - 4 - 44			
Omaha, Nebr.....	⁴ 31.3	13.75	1½	2	8 - 4 - 44	12	31.3	13.75	8 - 4 - 44			
Peoria, Ill.....	37.5	16.50	2	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
St. Louis, Mo.....	43.8	19.25	2	2	8 - 4 - 44	12	43.8	19.25	8 - 4 - 44			
St. Paul, Minn.....	⁶ 35.0	15.40	2	2	8 - 4 - 44	12	35.0	16.80	8 - 8 - 48			
STONEMASONS.												
Chicago, Ill.....	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Cincinnati, Ohio.....	70.0	31.50	1½	2	8 - 5 - 45	12	65.0	29.25	8 - 5 - 45			
Cleveland, Ohio.....	90.0	39.60	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Concrete block work.....	90.0	39.60	1½	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44			
Columbus, Ohio.....	70.0	30.80	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
Davenport, Iowa, and Mo- line and Rock Island, Ill.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Detroit, Mich.....	80.0	35.20	1½	2	⁸ 8 - 4 - 44	9	75.0	33.00	⁸ 8 - 4 - 44			
Grand Rapids, Mich.....	75.0	33.00	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
Indianapolis, Ind.....	85.0	37.40	⁹ 1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
Kansas City, Mo.....	75.0	33.00	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
Milwaukee, Wis.....	¹⁰ 72.5	31.90	2	2	¹¹ 8 - 4 - 44	12	72.5	31.90	8 - 4 - 44			
Minneapolis, Minn.....	70.0	30.80	1½	2	¹² 8 - 4 - 44	5	70.0	30.80	¹² 8 - 4 - 44			
Omaha, Nebr.....	75.0	33.00	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Peoria, Ill.....	81.3	35.75	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
St. Louis, Mo.....	70.0	30.80	2	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44			
St. Paul, Minn.....	75.0	36.00	1½	2	¹³ 8 - 8 - 48	.....	65.0	31.20	8 - 8 - 48		
Wichita, Kans.....	75.0	33.00	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
STRUCTURAL-IRON WORKERS.												
Chicago, Ill.....	¹⁴ 70.0	30.80	1½	2	¹⁵ 8 - 4 - 44	8	69.0	30.36	¹⁶ 8 - 4 - 44			
Cincinnati, Ohio.....	75.0	33.00	1½	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44			
Cleveland, Ohio.....	90.0	39.60	2	2	8 - 4 - 44	12	80.0	35.20	8 - 4 - 44			
Columbus, Ohio.....	80.0	35.20	2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44			

¹ Scale became 45 cents on June 1, 1918.

² Double time after midnight.

³ For one hour or less; for more than one hour, double time for whole period of overtime.

⁴ Scale became 43.8 cents on July 1, 1918.

⁵ For Labor Day triple time.

⁶ Scale became 49 cents on July 1, 1918.

⁷ Scale became 81.3 cents on August 1, 1918.

⁸ 48 hours, December to February, inclusive.

⁹ Double time after first hour.

¹⁰ Scale became 75 cents on June 1, 1918.

¹¹ Work on Saturday afternoon prohibited.

¹² 48 hours per week, October to April, inclusive.

¹³ Scale became 44 hours per week, on July 1, 1918.

¹⁴ Scale became 87.5 cents on June 1, 1918.

¹⁵ 48 hours per week, December to March, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- ay.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- ays.			Per hour.	Per week, full time.		
STRUCTURAL-IRON WORK- ERS—concluded.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Davenport, Iowa, and Mo- line and Rock Island, Ill.	73.5	32.34	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Des Moines, Iowa.	70.0	30.80	1½	2	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
Detroit, Mich.	80.0	35.20	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Indianapolis, Ind.	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Kansas City, Mo.	75.0	33.00	1½	2	8 - 4 - 44	12	68.8	31.25	8 - 4 - 44	
Milwaukee, Wis.	70.0	30.80	1½	2	8 - 4 - 44	8	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.	68.8	30.25	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Omaha, Nebr.	75.0	33.00	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Peoria, Ill.	76.5	33.66	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
St. Louis, Mo.	80.0	35.20	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
St. Paul, Minn.	68.8	30.25	2	2	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
STRUCTURAL-IRON WORKERS, FINISHERS.										
Chicago, Ill.	70.0	30.80	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Cincinnati, Ohio.	75.0	33.00	1½	2	8 - 4 - 44	12	59.0	25.96	8 - 4 - 44	
Cleveland, Ohio.	90.0	39.60	2	2	8 - 4 - 44	12	80.0	35.20	8 - 4 - 44	
Detroit, Mich.	80.0	35.20	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Indianapolis, Ind.	75.0	33.00	1½	10 2	11 8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Kansas City, Mo.	75.0	33.00	2½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Milwaukee, Wis.	70.0	30.80	1½	2	8 - 4 - 44	8	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.	68.8	30.25	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Omaha, Nebr.	75.0	33.00	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Peoria, Ill.	76.5	33.66	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
St. Louis, Mo.	80.0	35.20	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
St. Paul, Minn.	68.4	30.03	2	2	8 - 4 - 44	12	62.5	30.00	8 - 8 - 48	
STRUCTURAL-IRON WORKERS, FINISHERS' HELPERS.										
Cincinnati, Ohio.	45.0	19.80	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44	
Cleveland, Ohio.	50.0	22.00	2	2	8 - 4 - 44	12	45.0	19.80	8 - 4 - 44	
Detroit, Mich.	50.0	22.00	2	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44	
TILE LAYERS.										
Chicago, Ill.	127.50	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio.	136.8	30.25	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Cleveland, Ohio.	75.0	33.00	1½	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	

¹ 44 hours per week, June to August, inclusive.

² Double time after 6 p. m.

³ Double time after 7 p. m.

⁴ 48 hours per week, December to March, inclusive.

⁵ 48 hours per week, November to April, inclusive.

⁶ Scale became 75 cents on June 1, 1918.

⁷ 48 hours per week, September to April, inclusive.

⁸ 44 hours per week, June to September, inclusive.

⁹ Scale became 80 cents on June 1, 1918.

¹⁰ Work on Labor Day prohibited.

¹¹ Work on Saturday afternoon prohibited.

¹² Scale became 81.3 cents on June 1, 1918.

¹³ Scale became 71.9 cents on June 1, 1918.

¹⁴ Double time after midnight.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

BUILDING TRADES—Concluded.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holl- days.			Per hour.	Per week, full time.				
TILE LAYERS—concluded.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Des Moines, Iowa.....	71.9	31.63	1½	2	8 - 4 - 44	12	71.9	31.63	8 - 4 - 44			
Detroit, Mich.....	68.8	30.25	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44			
Grand Rapids, Mich.....	62.5	30.00	1½	2	8 - 8 - 48		62.5	27.50	8 - 4 - 44			
Indianapolis, Ind.....	68.8	30.25	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44			
Kansas City, Mo.....	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Milwaukee, Wis.....	71.9	31.63	1½	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44			
Minneapolis, Minn.....	68.8	30.25	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44			
Omaha, Nebr.....	71.9	31.63	1½	2	8 - 4 - 44	12	71.9	31.63	8 - 4 - 44			
St. Louis, Mo.....	75.0	33.00	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44			
St. Paul, Minn.....	68.8	30.25	1½	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44			
TILE LAYERS' HELPERS.												
Chicago, Ill.....	43.8	19.25	1½	2	8 - 4 - 44	12	43.8	19.25	8 - 4 - 44			
Cincinnati, Ohio.....	37.5	16.50	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
Cleveland, Ohio.....	37.5	16.50	1½	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Des Moines, Iowa.....	40.6	17.88	1½	2	8 - 4 - 44	12	40.6	17.88	8 - 4 - 44			
Grand Rapids, Mich.....	37.5	18.00	1½	2	8 - 8 - 48		31.3	13.75	8 - 4 - 44			
Kansas City, Mo.....	43.8	19.25	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
Milwaukee, Wis.....	43.8	19.25	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
Minneapolis, Minn.....	37.5	16.50	1½	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			
Omaha, Nebr.....	40.0	17.60	1½	2	8 - 4 - 44	12	40.0	17.60	8 - 4 - 44			
St. Louis, Mo.....	43.8	19.25	1½	2	8 - 4 - 44	12	37.5	16.50	8 - 4 - 44			
St. Paul, Minn.....	37.5	16.50	1½	2	8 - 4 - 44	12	34.4	15.13	8 - 4 - 44			

FREIGHT HANDLERS.

Chicago, Ill.:												
Laborers, grain elevator, inside men.....	41.3	19.80	1½	2	8 - 8 - 48		41.3	19.80	8 - 8 - 48			
Stowers.....	32.5	19.50	1	2	10 - 10 - 60		25.0	15.00	10 - 10 - 60			
Truckers.....	32.5	19.50	1	2	10 - 10 - 60		24.0	14.40	10 - 10 - 60			
Cleveland, Ohio.....	55.0	33.00	1½	2	10 - 10 - 60		45.0	27.00	10 - 10 - 60			
Milwaukee, Wis.:												
Coopers.....	50.0	34.50	1	1	10 - 10 - 60		31.4	22.00	10 - 10 - 70			
Package freight handlers ..	50.0	30.00	1	1	10 - 10 - 60		45.0	27.00	10 - 10 - 60			
Warehouse men.....	50.0	30.00	1	1	10 - 10 - 60		33.3	20.00	10 - 10 - 60			

GRANITE AND STONE TRADES.

GRANITE CUTTERS.												
Chicago, Ill.:												
Outside.....	75.0	33.00	1½	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44			
Inside and machine.....	66.3	29.15	1½	2	8 - 4 - 44		56.3	24.75	8 - 4 - 44			
Cincinnati, Ohio:												
Outside.....	75.0	33.00	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
Inside.....	62.5	27.50	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44			
Milwaukee, Wis.....	69.5	30.58	1½	2	8 - 4 - 44	12	57.0	25.08	8 - 4 - 44			
Cleveland, Ohio:												
Outside.....	75.0	33.00	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44			
Inside.....	62.5	27.50	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44			
Surfacing machine.....	68.8	30.25	1½	2	8 - 4 - 44	12	53.8	23.65	8 - 4 - 44			
Des Moines, Iowa.....	60.0	26.40	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44			

1 Scale became 71.9 cents on June 1, 1918.

2 48 hours per week, November to March, inclusive.

3 Scale became 68.8 cents on June 1, 1918.

4 Double time after midnight.

5 Scale became 50 cents on June 1, 1918.

6 Scale became 46.3 cents on June 1, 1918.

7 Rate in cents per hour.

8 Double time after 8 p. m.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

GRANITE AND STONE TRADES—Concluded.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holl- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holl- days.			Per hour.	Per week, full time.		
GRANITE CUTTERS—CON.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Detroit, Mich.:										
Outside.....	73.8	32.45	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Inside.....	62.5	27.50	1½	2	8 - 4 - 44	12	51.3	22.55	8 - 4 - 44	
Machine.....	67.5	29.70	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Minneapolis, Minn.:										
Outside.....	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Monumental work.....	60.0	26.40	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
St. Louis, Mo.:										
Outside.....	70.0	35.20	1½	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Inside.....	60.0	26.40	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Machine.....	66.3	29.15	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
St. Paul, Minn.:										
Outside.....	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Machine.....	60.0	26.40	1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
STONECUTTERS.										
Chicago, Ill.:	170.0	30.80	(2)	(2)	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Cincinnati, Ohio.....	70.0	30.80	1½	2	8 - 4 - 44	12	65.0	27.50	8 - 4 - 44	
Cleveland, Ohio.....	77.5	34.10	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Columbus, Ohio.....	70.0	30.80	(2)	(2)	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Detroit, Mich.:										
Outside.....	70.0	30.80	1½	2	8 - 4 - 44	12	70.0	30.80	8 - 4 - 44	
Planing machine.....	60.0	26.40	1½	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Grand Rapids, Mich.:	75.0	33.00	(2)	(2)	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Indianapolis, Ind.:	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Kansas City, Mo.:	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Minneapolis, Minn.:	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Omaha, Nebr.:	67.5	29.70	(2)	(2)	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Peoria, Ill.:	62.5	27.50	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
St. Louis, Mo.:	70.0	30.80	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
St. Paul, Minn.:	62.5	27.50	1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Wichita, Kans.:	62.5	27.50	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	

METAL TRADES.

BLACKSMITHS.¹									
Chicago, Ill.:									
Outside.....	87.5	38.50	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44
Manufacturing shops.....	75.0	36.00	2	2	8 - 8 - 48	4	56.0	26.88	8 - 8 - 48
Manufacturing and jobbing shops.....	75.0	36.00	2	2	8 - 8 - 48	4	56.0	26.88	8 - 8 - 48
Hammermen, manufactur- ing shops.....	87.5	42.00	2	2	8 - 8 - 48	4	70.0	33.60	8 - 8 - 48
Railroad shops, road A.....	68.0	32.64	1½	2	8 - 8 - 48	.....	42.0	22.68	9 - 9 - 54
Railroad shops, road B.....	68.0	32.64	1½	2	8 - 8 - 48	.....	43.5	23.49	9 - 9 - 54

¹ Scale became 81.3 cents on June 1, 1918.² Work prohibited.³ Scale became 80 cents on Aug. 1, 1918.⁴ Double time after first two hours.⁵ Scale became 67.5 cents on June 1, 1918.⁶ Scale became 75 cents on June 15, 1918.⁷ Scale became 75 cents on July 22, 1918.⁸ For explanation of changes in rates in railroad shops see p. 139.⁹ 44 hours per week, June to September, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- days.			Per hour.	Per week, full time.				
BLACKSMITHS—continued.												
Chicago, Ill.—Concluded.												
Railroad shops, road C—	<i>Cents.</i>	<i>Dolls.</i>		<i>Regular rate multiplied by—</i>			<i>Cents.</i>	<i>Dolls.</i>				
First fire.....	68.5	32.88	1½	2	8-8-48		47.0	25.33	19	8-53		
Second fire.....	69.5	33.36	1½	2	8-8-48		45.0	24.25	19	8-53		
Chain fire.....	68.0	32.64	1½	2	8-8-48		39.5	21.28	19	8-53		
General fire.....	68.0	32.64	1½	2	8-8-48		43.5	23.44	19	8-53		
Railroad shops, road D.....	68.0	32.64	2 1	2	8-8-48		41.0	22.14	9	9-54		
Railroad shops, road E.....												
Hammermen.....	71.0	34.08	1½	2	8-8-48		55.5	29.97	9	9-54		
Railroad shops.....	68.0	32.64	1½	2	8-8-48		43.5	23.49	9	9-54		
Railroad shops, road F.....	68.0	32.64	2 1½	2	8-8-48		50.0	27.00	9	9-54		
Cincinnati, Ohio, railroad shops.....	68.0	32.64	2 1½	1½	8-8-48		37.5	20.25	9	9-54		
Davenport, Iowa, and Mo- line and Rock Island, Ill., railroad shops.....	68.0	32.64	1½	1½	8-8-48		43.5	23.44	19	8-53		
Indianapolis, Ind.:—												
Railroad shops, road A—												
Heavy fire.....	68.0	32.64	3 1	1½	8-8-48	12	40.5	21.87	9	9-54		
General fire.....	68.0	32.64	3 1	1½	8-8-48	12	38.5	20.79	9	9-54		
Railroad shops, road B—												
Heavy fire.....	68.0	32.64	2 1	1½	8-8-48		41.5	22.41	9	9-54		
General fire.....	68.0	32.64	2 1	1½	8-8-48		38.5	20.79	9	9-54		
Kansas City, Mo.:—												
Railroad shops, road A.....	68.0	32.64	2 1	1½	8-8-48		40.0	21.60	9	9-54		
Railroad shops, road B.....	68.0	32.64	1½	1½	8-8-48		40.0	19.20	8	8-48		
Railroad shops, road C.....	68.0	32.64	1½	1½	8-8-48		43.5	23.49	9	9-54		
Railroad shops, road D.....	68.0	32.64	2 1	1½	8-8-48		43.5	23.49	9	9-54		
Railroad shops, road E.....												
First fire.....	68.0	32.64	3 1½	1½	8-8-48		47.5	25.59	19	8-53		
Second fire.....	68.0	32.64	3 1½	1½	8-8-48		45.5	24.52	19	8-53		
Light fire.....	68.0	32.64	3 1½	1½	8-8-48		38.5	20.74	19	8-53		
Miscellaneous fire, railroad shops, road F.....	68.0	32.64	1½	1½	8-8-48		43.5	23.44	19	8-53		
Railroad shops, road H—												
Heavy fire.....	68.0	32.64	1½	1½	8-8-48		44.0	23.76	9	9-54		
Car fire.....	68.0	32.64	1½	1½	8-8-48		37.0	19.98	9	9-54		
Frame fire.....	68.0	32.64	1½	1½	8-8-48		46.5	25.11	9	9-54		
Railroad shops, road J.....	68.0	32.64	2 1½	1½	8-8-48		43.5	23.49	9	9-54		
Railroad shops, road K.....	68.0	32.64	4 1½	1½	8-8-48		41.0	22.14	9	9-54		
Milwaukee, Wis.:—												
Railroad shops.....	68.0	32.64	4 1½	1½	8-8-48		32.5	16.58	9	9-5-50		
Hammermen.....	68.0	32.64	4 1½	1½	8-8-48		45.5	23.21	9	9-5-50		
Trip-hammermen.....	68.0	32.64	4 1½	1½	8-8-48		35.0	17.85	9	9-5-50		
Minneapolis, Minn.:—												
Railroad shops, road A—												
Heavy fire.....	68.0	32.64	4 1½	1½	8-8-48		47.5	24.23	9	9-5-50		
Second fire.....	68.0	32.64	4 1½	1½	8-8-48		45.5	23.21	9	9-5-50		
General locomotive and spring fires.....	68.0	32.64	4 1½	1½	8-8-48		42.0	21.42	9	9-5-50		
General car fire.....	68.0	32.64	4 1½	1½	8-8-48		39.5	20.15	9	9-5-50		

¹ Work 53 hours, paid for 53 hours and 53 minutes.

² Time and one-half after 1 hour.

³ Time and one-half after 1 hour; on Saturday for all overtime.

⁴ Double time after midnight.

⁵ Work 53 hours, paid for 54.

⁶ Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
BLACKSMITHS—continued.												
Minneapolis, Minn.—Concl'd.												
Railroad shops, road B—	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>					<i>Cents.</i>	<i>Dolls.</i>			
Big fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			47.0	23.97	29	5 - 50	
General fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.5	22.19	29	5 - 50	
General engine fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			47.5	24.23	29	5 - 50	
Spring fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			44.5	22.70	29	5 - 50	
Tool fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			44.0	22.44	29	5 - 50	
Mixed fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			41.0	20.91	29	5 - 50	
Light fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			38.5	19.64	29	5 - 50	
Railroad shops, road C—												
Big fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			48.5	24.74	29	5 - 50	
Spring fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			46.5	23.72	29	5 - 50	
Tool fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			46.0	23.46	29	5 - 50	
General fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			45.5	23.21	29	5 - 50	
General fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.5	22.19	29	5 - 50	
Mixed fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			42.5	21.68	29	5 - 50	
Car fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			38.0	19.38	29	5 - 55	
Omaha, Nebr.: Railroad shops	68.0	32.64	3 1	1 1/2	8 - 8 - 48			(4)	(4)	(4)		
St. Louis, Mo.:												
Manufacturing shops.....	50.0	27.00	1 1/2	1 1/2	9 - 9 - 54			40.0	21.60	9	9 - 54	
Outside.....	80.0	35.20	2	2	8 - 4 - 44	12		65.0	28.60	8	4 - 44	
Railroad shops—												
Road A—												
Car fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			32.5	17.23	69	8 - 53	
Engine fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			44.0	23.76	69	8 - 53	
Road B—												
First fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			47.5	25.59	69	8 - 53	
Second fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			45.5	24.52	69	8 - 53	
Miscellaneous fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			42.5	22.90	69	8 - 53	
Light fire.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			38.5	20.74	69	8 - 53	
Bolt makers.....	68.0	32.64	6 1	1 1/2	8 - 8 - 48			32.5	17.23	69	8 - 53	
Road C—												
Big fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			49.0	26.46	9	9 - 54	
Second fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			45.5	24.57	9	9 - 54	
Miscellaneous fires.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.5	23.49	9	9 - 54	
Light fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			39.5	21.33	9	9 - 54	
Miscellaneous fires.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.0	23.22	9	9 - 54	
Car fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			39.5	21.33	9	9 - 54	
Road E.....	68.0	32.64	2	2	8 - 8 - 48			52.5	25.20	8	8 - 48	
Road F.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			42.0	22.68	9	9 - 54	
Road G.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.5	23.44	69	8 - 53	
Road H.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			53.0	28.56	69	8 - 53	
Road I.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			40.0	21.60	9	9 - 54	
St. Paul, Minn.:												
Railroad shops—												
Road A—												
First heavy fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			48.5	24.74	29	5 - 50	
Second heavy fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			46.5	23.72	29	5 - 50	
General fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			45.5	23.21	29	5 - 50	
Road B—												
First heavy fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			48.5	24.74	29	5 - 50	
Second heavy fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			46.5	23.72	29	5 - 50	
General engine fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			45.5	23.21	29	5 - 50	
General car fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			43.5	22.19	29	5 - 50	
Light car fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48			40.5	20.66	29	5 - 50	

¹ Double time after midnight.

² Work 50 hours, paid for 51; 53 hours, paid for 54, October to April inclusive.

³ Time and one-half after 1 hour.

⁴ Not organized on May 15, 1917.

⁵ Time and one-half after 1 hour: on Saturday for all overtime.

⁶ Work 53 hours, paid for 53 hours and 53 minutes.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- day.	Rate of wages—		Hours— Full days; Saturdays; Full weeks.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- days.			Per hour.	Per week, full time.		
BLACKSMITHS—concluded.										
St. Paul, Minn.—Concluded.										
Railroad shops—Concl.										
Road C—	Cents.	Dolls.		Regular rate multiplied by—			Cents.	Dolls.		
Heavy fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.5	23.21	29 - 5 - 50	
Tool fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		43.5	22.19	29 - 5 - 50	
Mixed fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		41.0	20.91	29 - 5 - 50	
General fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		42.5	21.68	29 - 5 - 50	
General car fire.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		41.5	21.17	29 - 5 - 50	
Wichita, Kans.:										
Railroad shops—										
Road A.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		35.0	18.90	9 - 9 - 54	
Road B—										
Big fire.....	68.0	32.64	1 1/2	3 1/2	8 - 8 - 48		46.5	22.22	48 - 7 - 47	
General fire.....	68.0	32.64	1 1/2	3 1/2	8 - 8 - 48		44.0	21.03	48 - 7 - 47	
Road C.....	68.0	32.64	6 1	3 1/2	8 - 8 - 48		44.0	23.71	69 - 8 - 53	
BLACKSMITHS' HELPERS. ¹										
Chicago, Ill.:										
Outside.....	75.0	33.00	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Manufacturing shops.....	62.5	30.00	2	2	8 - 8 - 48	4	48.0	23.04	8 - 8 - 48	
Manufacturing and jobbing shops.....	62.5	30.00	2	2	8 - 8 - 48	4	45.0	21.60	8 - 8 - 48	
Railroad shops—										
Road A.....	45.0	21.60	9 1	2	8 - 8 - 48		28.0	15.12	9 - 9 - 54	
Road B.....	45.0	21.60	1 1/2	2	8 - 8 - 48		30.0	16.20	9 - 9 - 54	
Road C—										
First fire.....	45.1	21.65	1 1/2	2	8 - 8 - 48		32.0	17.24	69 - 8 - 53	
First fire.....	45.0	21.60	1 1/2	2	8 - 8 - 48		31.5	16.97	69 - 8 - 53	
Second fire.....	45.0	21.60	1 1/2	2	8 - 8 - 48		31.5	16.97	69 - 8 - 53	
Second fire.....	45.1	21.65	1 1/2	2	8 - 8 - 48		32.0	17.24	69 - 8 - 53	
Miscellaneous fires.....	45.0	21.60	1 1/2	2	8 - 8 - 48		31.5	16.97	69 - 8 - 53	
Miscellaneous fires.....	45.3	21.72	1 1/2	2	8 - 8 - 48		32.0	17.24	69 - 8 - 53	
Miscellaneous fires.....	45.0	21.60	1 1/2	2	8 - 8 - 48		30.0	16.17	69 - 8 - 53	
Miscellaneous fires.....	45.0	21.60	1 1/2	2	8 - 8 - 48		31.0	16.70	69 - 8 - 53	
Road C.....	45.0	21.60	1 1/2	2	8 - 8 - 48		36.0	19.40	69 - 8 - 53	
Road D.....	45.0	24.30	9 1	2	8 - 8 - 48		28.0	15.12	9 - 9 - 54	
Road E.....	45.0	21.60	1 1/2	2	8 - 8 - 48		28.0	15.12	9 - 9 - 54	
Road F.....	45.0	21.60	9 1	1	8 - 8 - 48		29.0	15.66	9 - 9 - 54	
Davenport, Iowa, and Moline and Rock Island, Ill.: Rail- road shops.....	45.0	21.60	10 1	1 1/2	8 - 8 - 48		28.0	15.04	11 9 1/2 - 8 1/2 - 56	
Indianapolis, Ind.:										
Railroad shops—										
Road A—										
Heavy fire.....	45.0	21.60	6 1	1 1/2	8 - 8 - 48	12	23.5	12.69	9 - 9 - 54	
General fire.....	45.0	21.60	6 1	1 1/2	8 - 8 - 48	12	21.8	11.75	9 - 9 - 54	
Road B.....	45.0	21.60	9 1	1 1/2	8 - 8 - 48		23.5	12.69	9 - 9 - 54	

¹ Double time after midnight.

² Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

³ With a minimum of 5 hours' pay for 3 1/2 hours' or less work.

⁴ Work 47 hours, paid for 47 hours and 47 minutes.

⁵ Time and one-half after 1 hour; on Saturday for all overtime.

⁶ Work 53 hours, paid for 53 hours and 53 minutes.

⁷ For explanation of changes in rates in railroad shops see p. 139.

⁸ 44 hours per week, June to September, inclusive.

⁹ Time and one-half after 1 hour.

¹⁰ Time and one-half after 30 minutes; on Saturday for all overtime.

¹¹ Work 56 hours, paid for 56 hours and 56 minutes.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- days.			Per hour.	Per week, full time.				
BLACKSMITHS' HELPERS—CON.												
Kansas City, Kans.:												
Railroad shops—	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>					<i>Cents.</i>	<i>Dolls.</i>			
Road A.....	45.0	21.60	1 1	1 1/2	8 - 8 - 48			24.0	12.96	9 - 9 - 54		
Road B.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			23.5	11.28	8 - 8 - 48		
Road C.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			25.5	13.77	9 - 9 - 54		
Road D.....	45.0	21.60	1 1	1 1/2	8 - 8 - 48			28.5	15.39	9 - 9 - 54		
Road E—												
Miscellaneous fire.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			28.0	15.09	9 - 8 - 53		
Light fire.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			26.5	14.28	9 - 8 - 53		
Road F.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			27.5	14.82	9 - 8 - 53		
Road H—												
Heavy fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			27.0	14.58	9 - 9 - 54		
General fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			26.0	14.04	9 - 9 - 54		
Road J.....	45.0	21.60	1 1	1 1/2	8 - 8 - 48			27.0	14.58	9 - 9 - 54		
Road K.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			22.5	12.15	9 - 8 - 53		
Milwaukee, Wis.:												
Railroad shops.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			23.5	11.99	9 - 5 - 50		
Hammermen's helpers, railroad shops.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			24.5	12.50	9 - 5 - 50		
Minneapolis, Minn.:												
Railroad shops—												
Road A—												
Heavy fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			26.2	13.52	9 - 5 - 50		
Engine fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			25.0	12.75	9 - 5 - 50		
Car fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			25.0	12.75	9 - 5 - 50		
Road B—												
Big fire, outside.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			27.5	14.03	9 - 5 - 50		
Big fire, heaters.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			28.0	14.28	9 - 5 - 50		
General fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			26.5	13.52	9 - 5 - 50		
Road C—												
Big fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			29.5	14.75	9 - 5 - 50		
Spring fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			27.5	14.03	9 - 5 - 50		
General fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			26.5	13.52	9 - 5 - 50		
Omaha, Nebr.: Railroad shops	45.0	21.60	1 1	1 1/2	8 - 8 - 48			(7)	(7)	(7)		
St. Louis, Mo.:												
Manufacturing shops.....	35.0	16.80	1 1/2	1 1/2	8 - 8 - 48			30.0	16.20	9 - 9 - 54		
Outside.....	56.3	24.75	2	2	8 - 4 - 44	12		42.5	18.70	8 - 4 - 44		
Railroad shops—												
Road A.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			23.0	12.39	9 - 8 - 53		
Road B—												
Heaters.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			30.5	16.43	9 - 8 - 53		
First fire.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			28.0	15.09	9 - 8 - 53		
Second fire.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			28.0	15.09	9 - 8 - 53		
Miscellaneous fires.....	45.0	21.60	2 1	1 1/2	8 - 8 - 48			27.0	14.55	9 - 8 - 53		
Road C—												
Big fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			32.5	17.55	9 - 9 - 54		
Second fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			30.0	16.20	9 - 9 - 54		
Miscellaneous fires.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			29.0	15.66	9 - 9 - 54		
Miscellaneous fires.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			28.5	15.39	9 - 9 - 54		
Car fire.....	45.0	21.60	1 1/2	1 1/2	8 - 8 - 48			28.5	15.39	9 - 9 - 54		

¹ Time and one-half after 1 hour.

² Time and one-half after 1 hour; on Saturday for all overtime.

³ Work 53 hours, paid for 53 hours and 53 minutes.

⁴ Double time after midnight.

⁵ Work 53 hours, paid for 54.

⁶ Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

⁷ Not organized on May 15, 1917.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holidays.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holidays.			Per hour.	Per week, full time.				
BLACKSMITHS' HELPERS—CON.												
St. Louis, Mo.—Concluded.												
Railroad shops—Concoid.	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Road E.....	45.0	21.60	2	2	8 - 8 - 48		35.0	16.80		8 - 8 - 48		
Road F.....	45.0	21.60	1½	1½	8 - 8 - 48		25.0	13.50		9 - 9 - 54		
Road G.....	45.0	21.60	1½	1½	8 - 8 - 48		27.5	14.85		9 - 9 - 54		
Road H.....	45.0	21.60	1½	1½	8 - 8 - 48		30.0	16.20		9 - 9 - 54		
Road I.....	45.0	21.60	1½	1½	8 - 8 - 48		24.0	12.96		9 - 9 - 54		
St. Paul, Minn.:												
Railroad shops—												
Road A—												
First heavy fire.....	45.0	21.60	1½	1½	8 - 8 - 48		30.0	15.30		29 - 5 - 50		
Second heavy fire.....	45.0	21.60	1½	1½	8 - 8 - 48		30.0	15.30		29 - 5 - 50		
General fire.....	45.0	21.60	1½	1½	8 - 8 - 48		28.0	14.28		29 - 5 - 50		
Road B—												
First heavy fire.....	45.0	21.60	1½	1½	8 - 8 - 48		29.5	15.05		29 - 5 - 50		
Second heavy fire.....	45.0	21.60	1½	1½	8 - 8 - 48		27.5	14.03		29 - 5 - 50		
General fire.....	45.0	21.60	1½	1½	8 - 8 - 48		26.5	13.52		29 - 5 - 50		
Road C—												
Heavy fire.....	45.0	21.60	1½	1½	8 - 8 - 48		27.5	14.03		29 - 5 - 50		
General fire.....	45.0	21.60	1½	1½	8 - 8 - 48		26.0	13.26		29 - 5 - 50		
Wichita, Kans.:												
Railroad shops—												
Road A.....	45.0	21.60	1½	1½	8 - 8 - 48		26.0	14.04		9 - 9 - 54		
Road B—												
Big fire.....	45.0	21.60	1½	1½	8 - 8 - 48		28.0	13.38		48 - 7 - 47		
General fire.....	45.0	21.60	1½	1½	8 - 8 - 48		26.0	12.42		48 - 7 - 47		
Road C.....	45.0	21.60	1	1	8 - 8 - 48		27.0	14.55		69 - 8 - 53		
BOILER MAKERS. ⁷												
Chicago, Ill.:												
Manufacturing and job- bing shops.....	52.0	28.08	2	2	9 - 9 - 54		42.0	22.68		9 - 9 - 54		
Outside.....	80.0	35.20	2	2	8 - 4 - 44	12	70.0	30.80		8 - 4 - 44		
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		44.0	23.76		9 - 9 - 54		
Railroad shops, road C.....	68.0	32.64	1½	1½	8 - 8 - 48		44.0	23.71		69 - 8 - 53		
Railroad shops, road E.....	68.0	32.64	1½	1½	8 - 8 - 48		44.0	21.12		8 - 8 - 48		
Railroad shops, road G and H.....	68.0	32.64	1	1	8 - 8 - 48		47.5	25.65		9 - 9 - 54		
Railroad shops, road I.....	68.0	32.64	1	1	8 - 8 - 48		47.5	25.65		109 - 8 - 53		
Railroad shops, road J.....	68.0	32.64	1½	1½	8 - 8 - 48		47.0	25.38		9 - 9 - 54		
Cincinnati, Ohio:												
Manufacturing shops.....	1140.0	19.80	12 1½	12 1½	9 - 4½ - 49½	12	38.0	18.81		9 - 4½ - 49½		
Outside.....	62.5	30.00	2	2	8 - 8 - 48		50.0	24.00		8 - 8 - 48		
Outside, high tanks, and smoke stacks.....	62.5	30.00	2	2	8 - 8 - 48		62.5	30.00		8 - 8 - 48		
Railroad shops, road B.....	68.0	32.64	1	1	8 - 8 - 48		36.5	18.37		9 - 5½ - 50½		
Railroad shops, road D.....	68.0	32.64	1	1	8 - 8 - 48		42.0	22.68		9 - 9 - 54		
Railroad shops, road F.....	68.0	32.64	1	1	8 - 8 - 48		(13)	(13)		(13)		

¹ Double time after midnight.

² Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

³ With a minimum of 5 hours' pay for 3½ hours' or less work.

⁴ Work 47 hours, paid for 47 hours and 47 minutes.

⁵ Time and one-half after 1 hour; on Saturday for all overtime.

⁶ Work 53 hours; paid for 53 hours and 53 minutes.

⁷ For explanation of changes in rates in railroad shops see p. 139.

⁸ Time and one-half after 1 hour.

⁹ Time and one-half after 2 hours.

¹⁰ Work 53 hours, paid for 54.

¹¹ Scale became 55 cents on June 1, 1918.

¹² On new work; on repair work, double time.

¹³ Not organized on May 15, 1917.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
BOILER MAKERS—continued.										
Cleveland, Ohio:	<i>Cents.</i>	<i>Dolls.</i>		<i>Regular rate multiplied by—</i>			<i>Cents.</i>	<i>Dolls.</i>		
Manufacturing shops.....	60.0	29.70	1½	2	9 - 4½-49½	12	50.0	24.75	9 - 4½-49½	
Outside.....	75.0	33.00	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Railroad shops, road A.....	68.0	32.64	1½	1½	8 - 8 - 48		41.5	20.75	9 - 5 - 50	
Railroad shops, road B.....	68.0	32.64	1	1	8 - 8 - 48		40.0	20.00	9 - 5 - 50	
Railroad shops, road C.....	68.0	32.64	1½	1½	8 - 8 - 48		41.5	20.75	9 - 5 - 50	
Columbus, Ohio: Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		42.0	21.00	9 - 5 - 50	
Davenport, Iowa, Moline and Rock Island, Ill.:										
Contract shops.....	50.0	27.00	2	2	9 - 9 - 54		43.0	23.22	9 - 9 - 54	
Railroad shops.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	23.44	9 - 8 - 53	
Des Moines, Iowa:										
Manufacturing shops.....	55.0	29.70	2	2	9 - 9 - 54		45.0	24.30	9 - 9 - 54	
Railroad shops.....	68.0	32.64	1	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Detroit, Mich.:										
Manufacturing shops.....	62.5	33.75	1½	2	9 - 9 - 54		40.0	22.00	10 - 5 - 55	
Outside.....	75.0	36.00	2	2	8 - 8 - 48		62.5	30.00	8 - 8 - 48	
Railroad shops, road A.....	68.0	32.64	1½	1½	8 - 8 - 48		37.5	22.50	10 - 10 - 60	
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		34.0	20.40	10 - 10 - 60	
Railroad shops, road C.....	68.0	32.64	1½	1½	8 - 8 - 48		36.5	21.90	10 - 10 - 60	
Railroad shops, road E.....	68.0	32.64	1½	1½	8 - 8 - 48		(10)	(10)	(10)	
Railroad shops, road F.....	68.0	32.64	1½	1½	8 - 8 - 48		(10)	(10)	(10)	
Grand Rapids, Mich.:										
Railroad shops, road A.....	68.0	40.12	1½	1	8 - 8 - 48		38.0	20.90	10 - 5 - 55	
Railroad shops, road B.....	68.0	40.80	1½	1½	8 - 8 - 48		39.5	23.70	10 - 10 - 60	
Indianapolis, Ind.:										
Manufacturing shops.....	50.0	24.00	1½	2	8 - 8 - 48		42.0	21.00	9 - 5 - 50	
Outside.....	75.0	36.00	1½	2	8 - 8 - 48		65.0	31.20	8 - 8 - 48	
Railroad shops, road A.....	68.0	32.64	1½	1½	8 - 8 - 48		40.5	21.87	9 - 9 - 54	
Railroad shops, road A, layers-out and flangers.....	68.0	32.64	1½	1½	8 - 8 - 48		42.5	22.95	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		40.0	21.60	9 - 9 - 54	
Railroad shops, road B, layers-out and flangers.....	68.0	32.64	1½	1½	8 - 8 - 48		42.0	22.68	9 - 9 - 54	
Railroad shops, road C.....	68.0	34.64	1½	1½	8 - 8 - 48		42.0	22.68	9 - 9 - 54	
Railroad shops, road D.....	68.0	32.64	1½	1½	8 - 8 - 48		(10)	(10)	(10)	
Kansas City, Mo.:										
Manufacturing shops.....	45.0	24.30	1½	2	9 - 9 - 54		45.0	24.30	9 - 9 - 54	
Outside.....	46.5	30.00	2	2	8 - 8 - 48		62.5	30.00	8 - 8 - 48	
Railroad shops, road A.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	20.88	8 - 8 - 48	
Railroad shops, road C.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	20.88	8 - 8 - 48	
Railroad shops, road D.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	

¹ Time and one-half after 1 hour; on Saturday for all overtime.

² 54 hours per week, October to April, inclusive.

³ Scale became 55 cents on July 1, 1918.

⁴ Work 53 hours, paid for 54.

⁵ Scale became 60 cents on July 6, 1918.

⁶ Time and one-half after 1 hour.

⁷ On new work; on repair work, double time.

⁸ 44 hours per week June to September, inclusive.

⁹ Time and one-half after 2 hours.

¹⁰ No scale in effect on May 15, 1917.

¹¹ Time and one-half after 3 hours.

¹² Time and one-half after 2 hours; on Saturday after 1 hour.

¹³ Scale became 65.6 cents on June 1, 1918.

¹⁴ Scale became 75 cents on June 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES ON MAY, 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- days.			Per hour.	Per week, full time.		
BOILER MAKERS—continued.										
Kansas City, Mo.—Concld.	Cents.	Dolls.	Regular rate multiplied by—				Cents.	Dolls.		
Railroad shops, road E.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	44.0	23.71	29 - 8 - 53	
Railroad shops, road F.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.44	29 - 8 - 53	
Railroad shops, road H.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.49	9 - 9 - 54	
Railroad shops, road J.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.49	9 - 9 - 54	
Railroad shops, road K.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.49	29 - 8 - 53	
Milwaukee, Wis.:										
Manufacturing shops.....	48.0	25.92	6 1	2	9 - 9 - 54	.....	37.0	20.35	10 - 5 - 55	
Outside.....	62.5	27.50	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Railroad shops.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	44.0	22.44	29 - 8 - 50	
Railroad shops, round- house.....	68.0	38.76	1 1	1 1	8 - 8 - 56	.....	44.0	25.08	8 - 8 - 56	
Railroad shops, round- house.....	68.0	38.08	1 1	1 1	8 - 8 - 56	.....	43.5	24.36	8 - 8 - 56	
Minneapolis, Minn.:										
Railroad shops, road A.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	45.5	23.31	29 - 8 - 50	
Railroad shops, road B.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	47.0	23.97	29 - 8 - 50	
Omaha, Neb: Railroad shops	68.0	36.64	1 1	1 1	8 - 8 - 48	.....	44.0	23.71	29 - 8 - 53	
Peoria, Ill.:										
Jobbing shops.....	65.0	32.50	2	2	9 - 5 - 50	12	40.0	21.60	9 - 9 - 54	
Railroad shops, road A.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.49	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	42.0	22.68	9 - 9 - 54	
Railroad shops, road C.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	39.0	21.06	9 - 9 - 54	
Railroad shops, road D.....	68.0	32.64	1 1	1 1	8 - 8 - 48	12	39.0	19.50	9 - 5 - 50	
St. Louis, Mo.:										
Manufacturing shops.....	1050.0	24.00	6 1	6 1	8 - 8 - 48	.....	40.0	19.80	119 - 4 - 49	
Outside.....	50.0	22.00	6 1	6 1	8 - 4 - 44	12	45.0	22.28	128 - 4 - 44	
Railroad shops, road A.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	44.0	23.76	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	44.0	23.71	29 - 8 - 53	
Railroad shops, road B, flue welders.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	36.5	19.67	29 - 8 - 53	
Railroad shops, road B, inspectors.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	46.5	25.06	29 - 8 - 53	
Railroad shops, road C.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	45.0	24.30	9 - 9 - 54	
Railroad shops, road C.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	45.0	24.30	9 - 9 - 54	
Railroad shops, road F.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	42.0	22.68	9 - 9 - 54	
Railroad shops, road G.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.44	29 - 8 - 53	
Railroad shops, road I.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	43.5	23.49	9 - 9 - 54	
St. Paul, Minn.:										
Railroad shops, road A.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	47.0	23.97	29 - 8 - 50	
Railroad shops, road C.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	47.0	23.97	29 - 8 - 50	
Railroad shops, road D.....	68.0	32.64	1 1	1 1	8 - 8 - 48	.....	45.5	27.30	10 - 10 - 60	

¹ Time and one-half after 1 hour; on Saturday for all overtime.

² Work 53 hours, paid for 53 hours and 53 minutes.

³ Time and one-half after 1 hour.

⁴ Double time after midnight.

⁵ Work 53 hours, paid for 54.

⁶ On new work; on repair work, double time.

⁷ For Labor Day, triple time.

⁸ Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

⁹ Work 56 hours, paid for 57.

¹⁰ Scale became 55 cents on June 14, 1918.

¹¹ 54 hours per week, September to April, inclusive.

¹² Work 44 hours, paid for 49½ hours, May to August, inclusive; 48 hours, paid for 54, September to April, inclusive.

¹³ Time and one-half after 1 hour; double time after midnight.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
BOILER MAKERS—continued.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Wichita, Kans.:												
Outside, calkers.....	68.8	33.00	2	2	8 - 8 - 48	.....	62.5	30.00	8 - 8 - 48		
Outside, riveters.....	65.6	31.50	2	2	8 - 8 - 48	.....	62.5	30.00	8 - 8 - 48		
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48	.....	44.0	21.02	8 - 7 - 47		
Railroad shops, road B, night.....	68.0	32.64	1	1½	8 - 8 - 48	.....	44.0	26.39	8½ - 8½ - 57		
Railroad shops, road B, layers-out and flangers.....	68.0	32.64	1½	1½	8 - 8 - 48	.....	46.5	22.22	8 - 7 - 47		
Railroad shops, road B, roundhouse.....	68.0	32.64	1	1½	8 - 8 - 48	.....	44.0	23.71	9 - 8 - 53		
Railroad shops, road C.....	68.0	32.64	1	1½	8 - 8 - 48	.....	44.0	23.71	9 - 8 - 53		
Railroad shops, road C, night.....	68.0	32.64	1	1½	8 - 8 - 48	.....	44.0	26.39	8½ - 8½ - 57		
Railroad shops, road C, running repair man.....	68.0	32.64	1	1½	8 - 8 - 48	.....	44.0	23.71	9 - 8 - 53		
Chicago, Ill.:												
Manufacturing and job- bing shops.....	42.0	22.68	2	2	9 - 9 - 54	.....	35.0	18.90	9 - 9 - 54		
Outside.....	70.0	30.80	2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44			
Railroad shops, road B.....	45.0	21.60	1½	1½	8 - 8 - 48	.....	29.0	15.66	9 - 9 - 54		
Railroad shops, road C.....	45.0	21.60	1	1½	8 - 8 - 48	.....	28.0	15.09	9 - 8 - 53		
Railroad shops, road E.....	45.0	21.60	1½	1½	8 - 8 - 48	.....	23.5	11.28	8 - 8 - 48		
Railroad shops, road H.....	45.0	21.60	1	1½	8 - 8 - 48	.....	31.5	17.01	9 - 9 - 54		
Railroad shops, road I.....	45.0	21.60	1	1½	8 - 8 - 48	.....	31.0	16.74	9 - 8 - 53		
Cincinnati, Ohio:												
Manufacturing shops.....	1027.5	13.61	11½	11½	9 - 4½ - 49½	12	25.0	12.38	9 - 4½ - 49½			
Outside.....	1027.5	13.61	2	2	9 - 4½ - 49½	12	27.5	13.20	8 - 8 - 48			
Railroad shops, road B.....	45.0	21.60	1	1½	8 - 8 - 48	.....	21.0	10.57	9 - 5½ - 50½		
Railroad shops, road D.....	45.0	21.60	1	1½	8 - 8 - 48	.....	(12)	(12)	(12)		
Railroad shops, road F.....	45.0	21.60	1	1	8 - 8 - 48	.....	(12)	(12)	(12)		
Cleveland, Ohio:												
Manufacturing shops.....	46.0	22.77	1½	2	9 - 4½ - 49½	12	35.0	17.33	9 - 4½ - 49½			
Outside field work.....	65.0	28.60	1½	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44			
Railroad shops, road A.....	45.0	21.60	1	1½	8 - 8 - 48	.....	25.0	12.50	13 9 - 5 - 50		
Railroad shops, road B.....	45.0	21.60	1	1	8 - 8 - 48	.....	27.5	13.75	13 9 - 5 - 50		
Railroad shops, road C.....	45.0	21.60	1	1½	8 - 8 - 48	.....	30.0	15.00	13 9 - 5 - 50		
Davenport, Iowa, and Mo- line and Rock Island, Ill.:												
Contract shops.....	1435.0	18.90	2	2	9 - 8 - 54	.....	30.0	16.20	9 - 9 - 54		
Railroad shops.....	45.0	21.60	1½	1½	8 - 8 - 48	12	28.5	15.36	9 - 8 - 53			
Des Moines, Iowa:												
Manufacturing shops.....	1537.5	20.25	2	2	9 - 9 - 54	(16)	(16)	(16)				
Railroad shops.....	45.0	21.60	1	1½	8 - 8 - 48	.....	26.0	14.04	9 - 9 - 54		

¹ With a minimum of 5 hours' pay for 3½ hours, or less work.

² Work 47 hours, paid for 47 hours and 47 minutes.

³ Time and one-half after 1 hour and 40 minutes; on Saturday after 40 minutes.

⁴ Work 57 hours, paid for 59 hours and 59 minutes.

⁵ Time and one-half after 1 hour; on Saturday for all overtime.

⁶ Work 53 hours, paid for 53 hours and 53 minutes.

⁷ Time and one-half after 1 hour.

⁸ Time and one-half after 2 hours.

⁹ Work 53 hours, paid for 54.

¹⁰ Scale became 35 cents on June 1, 1918.

¹¹ On new work; on repair work, double time.

¹² No scale in effect on May 15, 1917.

¹³ 54 hours per week, October to April, inclusive.

¹⁴ Scale became 37.5 cents on July 1, 1918.

¹⁵ Scale became 40 cents on July 6, 1918.

¹⁶ Not organized on May 15, 1917.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL WORKERS—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holidays.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holidays.			Per hour.	Per week, full time.		
BOILER MAKERS—concl'd.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Detroit, Mich.:										
Manufacturing shops.....	40.0	21.60	1½	2	9-9-54		30.0	16.50	10-5-55	
Outside.....	62.5	30.00	2	2	8-8-48		50.0	24.00	18-8-48	
Railroad shops.....	45.0	21.60	1½	1½	8-8-48		31.0	18.60	10-10-60	
Grand Rapids, Mich.:										
Railroad shops, road A....	45.0	21.60	2 1	1	8-8-48		24.0	13.20	10-5-55	
Railroad shops, road B....	45.0	21.60	3 1	1½	8-8-48		25.0	15.00	10-10-60	
Indianapolis, Ind.:										
Railroad shops, union A....	45.0	21.60	4 1	1½	8-8-48		22.5	12.15	9-9-54	
Railroad shops, union B....	45.0	21.60	4 1	1½	8-8-48		24.5	13.23	9-9-54	
Kansas City, Mo.:										
Manufacturing shops.....	\$30.0	16.20	1½	2	9-9-54		30.0	16.20	9-9-54	
Outside work.....	\$56.3	27.00	2	2	8-8-48		56.3	27.00	8-8-48	
Railroad shops, road C....	45.0	21.60	1½	1½	8-8-48		27.5	13.20	8-8-48	
Railroad shops, road D....	45.0	21.60	4 1	1½	8-8-48		28.5	15.39	9-9-54	
Railroad shops, road E....	45.0	21.60	7 1	1½	8-8-48		28.0	15.09	8-9-53	
Railroad shops, road F....	45.0	21.60	1½	1½	8-8-48		27.5	14.82	8-9-53	
Railroad shops, road H....	45.0	21.60	1½	1½	8-8-48		27.0	14.58	9-9-54	
Railroad shops, road J....	45.0	21.60	4 1½	1½	8-8-48		26.5	14.31	9-9-54	
Railroad shops, road K....	45.0	21.60	9 1½	1½	8-8-48		25.0	13.50	10-9-53	
BOILERMAKERS' HELPERS. ¹¹										
	"									
Milwaukee, Wis.:										
Manufacturing shops.....	40.0	21.60	12 1½	2	9-9-54		25.0	13.75	10-5-55	
Outside.....	50.0	22.00	2	18 2	8-4-44	12	50.0	22.00	8-4-44	
Railroad shops, road A....	45.0	21.60	9 1½	1½	8-8-48		23.5	11.99	14-9-50	
Railroad shops, road A, roundhouse.....	45.0	25.65	9 1½	1½	8-8-56		23.5	13.40	16-8-56	
Railroad shops, road B, roundhouse.....	45.0	25.20	1½	1½	8-8-56		23.0	12.88	8-8-56	
Minneapolis, Minn.:										
Railroad shops, road A....	45.0	21.60	9 1½	1½	8-8-48		25.5	13.01	14-9-50	
Railroad shops, road B....	45.0	21.60	9 1½	1½	8-8-48		25.5	12.75	14-9-50	
Omaha, Nebr.: Railroad shops.....	45.0	21.60	7 1	1½	8-8-48	12	28.0	15.09	8-9-53	
Peoria, Ill.:										
Jobbing shops.....	50.0	25.00	2	2	9-5-50	12	25.0	13.50	9-9-54	
Railroad shops.....	45.0	23.85	7 1	1½	8-8-48		29.0	15.66	9-9-54	

¹ 44 hours per week, June to August, inclusive.² Time and one-half after 2 hours; on Saturday after 1 hour.³ Time and one-half after 2 hours.⁴ Time and one-half after 1 hour.⁵ Scale became 50 cents on June 1, 1918.⁶ Scale became 68.8 cents on June 1, 1918.⁷ Time and one-half after 1 hour; on Saturday for all overtime.⁸ Work 53 hours, paid for 53 hours and 53 minutes.⁹ Double time after midnight.¹⁰ Work 53 hours, paid for 54.¹¹ For explanation of changes in rates in railroad shops see page 139.¹² On new work; on old work, double time.¹³ For Labor Day, triple time.¹⁴ Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.¹⁵ Work 56 hours, paid for 57.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half ho i- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holidays.			Per hour.	Per week, full time.				
BOILERMAKERS' HELPERS— concluded.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>					<i>Cents.</i>	<i>Dolls.</i>			
St. Louis, Mo.:												
Manufacturing shops.....	135.0	16.80	$2\frac{1}{2}$	$2\frac{1}{2}$	8 - 8 - 48			25.0	12.38	9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$		
Outside.....	38.0	16.72	$2\frac{1}{2}$	$2\frac{1}{2}$	8 - 4 - 44	12		28.1	13.92	8 - 4 - 44		
Railroad shops, road A.....	45.0	21.60	$5\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			24.5	13.23	9 - 9 - 54		
Railroad shops, road B.....	45.0	21.60	$6\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			28.0	15.09	9 - 8 - 53		
Railroad shops, road C.....	45.0	21.60	$8\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			26.5	14.31	9 - 9 - 54		
Railroad shops, road F.....	45.0	21.60	$6\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			24.0	12.96	9 - 9 - 54		
St. Paul, Minn.:												
Railroad shops, road A.....	45.0	21.60	$8\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			24.5	12.50	9 - 5 - 50		
Railroad shops, road C.....	45.0	21.60	$8\frac{1}{2}$	$1\frac{1}{2}$	8 - 8 - 48			24.0	12.24	9 - 5 - 50		
Wichita, Kans.:												
Outside.....	59.4	28.50	2	2	8 - 8 - 48			56.3	27.00	8 - 8 - 48		
Railroad shops, road B.....	45.0	21.60	$1\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			28.0	13.38	11 - 8 - 7 - 47		
Railroad shops, road B roundhouse.....	45.0	21.60	$6\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			29.0	15.63	9 - 8 - 53		
Railroad shops, road B night work.....	45.0	21.60	$12\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			28.0	16.80	12 - 9 - 8 - 57		
Railroad shops, road C.....	45.0	21.60	$6\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			27.0	14.55	9 - 8 - 53		
Railroad shops, road C running repair men.....	45.0	21.60	$6\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			27.0	14.55	9 - 8 - 53		
Railroad shops, road C night work.....	45.0	21.60	$12\frac{1}{2}$	$10\frac{1}{2}$	8 - 8 - 48			27.5	16.50	12 - 9 - 8 - 57		
COPPERSMITHS.												
Chicago, Ill.:												
Shops A.....	70.0	34.65	$1\frac{1}{2}$	2	9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$	12		52.5	25.99	14 - 9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$		
Shops B.....	70.0	34.65	$1\frac{1}{2}$	2	9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$	12		55.0	24.20	8 - 4 - 44		
Inside.....	79.0	34.65	$1\frac{1}{2}$	2	9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$	12		55.0	27.23	9 - 4 $\frac{1}{2}$ - 49 $\frac{1}{2}$		
Outside.....	80.0	38.40	2	2	8 - 8 - 48			62.5	30.00	8 - 8 - 48		
Cincinnati, Ohio.....	70.0	33.60	2	2	8 $\frac{1}{2}$ - 4 $\frac{1}{2}$ - 48	12		59.0	24.00	8 $\frac{1}{2}$ - 4 $\frac{1}{2}$ - 48		
St. Louis, Mo.....	62.5	27.50	$1\frac{1}{2}$	2	8 - 4 - 44	12		45.0	19.80	8 - 4 - 44		
CORE MAKERS.												
Chicago, Ill.....	68.8	33.00	$1\frac{1}{2}$	2	8 - 8 - 48			56.3	27.00	8 - 8 - 48		
Cincinnati, Ohio.....	65.5	30.02	$1\frac{1}{2}$	2	9 - 9 - 54			44.4	23.98	9 - 9 - 54		
Cleveland, Ohio.....	61.1	33.00	$1\frac{1}{2}$	$16\frac{1}{2}$	17 9 - 9 - 54	4		44.4	24.00	17 9 - 9 - 54		
Detroit, Mich.....	61.1	33.00	$1\frac{1}{2}$	2	9 - 9 - 54			50.0	27.00	9 - 9 - 54		
Grand Rapids, Mich.....	44.4	24.00	$1\frac{1}{2}$	2	9 - 9 - 54			44.4	24.00	9 - 9 - 54		
Indianapolis, Ind.....	55.5	30.00	$1\frac{1}{2}$	2	9 - 9 - 54			44.4	24.00	9 - 9 - 54		
Kansas City, Mo.....	60.0	32.40	$1\frac{1}{2}$	2	9 - 9 - 54			50.0	27.00	9 - 9 - 54		
Minneapolis, Minn.....	55.5	30.00	$1\frac{1}{2}$	2	9 - 9 - 54			36.1	19.50	9 - 9 - 54		
Omaha, Neb.....	55.5	30.00	$1\frac{1}{2}$	2	9 - 9 - 54			45.0	24.30	18 9 - 9 - 54		
Peoria, Ill.....	50.0	27.00	$1\frac{1}{2}$	2	9 - 9 - 54			44.4	24.00	9 - 9 - 54		
St. Louis, Mo.....	61.1	33.00	$1\frac{1}{2}$	2	9 - 9 - 54			50.0	27.00	9 - 9 - 54		
St. Paul, Minn.....	65.5	30.00	$1\frac{1}{2}$	2	9 - 9 - 54			44.4	24.00	9 - 9 - 54		

¹ Scale became 38.5 cents on June 14, 1918.

² For new work, on old work double time.

³ Scale became 41.8 cents on June 14, 1918.

⁴ Work 44 hours, paid for 49 $\frac{1}{2}$ hours, May to August, inclusive; 48 hours, paid for 54, September to April, inclusive.

⁵ Time and one-half after 1 hour.

⁶ Time and one-half after 1 hour; on Saturday for all overtime.

⁷ Work 53 hours, paid for 53 hours and 53 minutes.

⁸ Double time after midnight.

⁹ Work 50 hours, paid for 51; 53 hours, paid for 54; October to April, inclusive.

¹⁰ With a minimum of 5 hours' pay for 3 $\frac{1}{2}$ hours' or less work.

¹¹ Work 47 hours, paid for 47 hours and 47 minutes.

¹² Time and one-half after 1 hour and 40 minutes; on Saturday after 40 minutes.

¹³ Work 57 hours, paid for 59 hours and 59 minutes.

¹⁴ 54 hours per week, October to April, inclusive.

¹⁵ Scale became 58.3 cents on May 16, 1918.

¹⁶ Time and one-half on Saturday afternoon, May to August, inclusive.

¹⁷ 50 hours per week, May to August, inclusive.

¹⁸ 49 $\frac{1}{2}$ hours per week, May 16 to Sept. 15, inclusive.

¹⁹ Scale became 58.3 cents on Aug. 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city. ¹	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
MACHINISTS. ¹												
Chicago, Ill.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
All-round men.....	65.0	31.20	2	2	8-8-48	4	55.0	26.40	8-8-48			
Breweries.....	67.5	32.40	1½	1½	8-8-48	.....	60.0	28.80	8-8-48		
Outside.....	85.0	37.40	2	2	8-4-44	12	75.0	33.00	8-4-44			
Specialists.....	43.0	20.64	2	2	8-8-48	.....	43.0	20.64	8-8-48		
Tool and die makers.....	71.0	34.08	2	2	8-8-48	4	61.0	29.28	8-8-48			
Railroad shops, road B.....	68.0	32.64	1½	1½	8-8-48	.....	43.5	23.49	9-9-54		
Railroad shops, road C.....	68.0	32.64	1½	1½	8-8-48	.....	43.5	23.44	9-8-53		
Railroad shops, road E.....	68.0	32.64	4 1½	1½	8-8-48	.....	52.0	24.96	8-8-48		
Railroad shops, road F.....	68.0	32.64	1	1	8-8-48	.....	42.0	22.68	9-9-54		
Railroad shops, road H.....	68.0	32.64	5 1	1½	8-8-48	.....	46.0	24.43	9-8-53		
Railroad shops, road I.....	68.0	32.64	5 1	1½	8-8-48	.....	47.5	25.65	9-8-53		
Railroad shops, road J.....	68.0	32.64	1½	1½	8-8-48	.....	42.0	20.16	8-8-48		
Railroad shops, road K.....	68.0	32.64	7 1	1½	8-8-48	.....	45.0	24.30	9-9-54		
Railroad shops, road L.....	68.0	32.64	1½	1½	8-8-48	.....	42.5	20.40	8-8-48		
Cincinnati, Ohio:												
All-round men, manu- facturing shops.....	42.0	20.16	1½	2	8-8-48	.....	42.0	20.16	8½-5½-48		
Automobile.....	37.5	18.75	1	1	8½-8½-50	.....	(9)	(9)	(9)		
Breweries.....	42.5	20.40	4 1½	10 2	8-8-48	.....	42.5	20.40	8-8-48		
Jobbing (repair shops).....	42.0	20.16	11 1½	2	8-8-48	.....	42.0	20.16	8-8-48		
Outside.....	125.00	24.00	11 1½	2	8-8-48	.....	50.0	24.00	8½-5½-48		
Sewing-machine adjusters.....	49.0	25.00	1	1	8½-8½-51	.....	(9)	(9)	(9)		
Tool and die makers, manu- facturing shops.....	60.0	28.80	1½	2	8-8-48	.....	48.0	23.04	8½-5½-48		
Railroad shops, road A.....	68.0	32.64	1½	1½	8-8-48	.....	42.6	22.98	9-9-54		
Railroad shops, road B.....	68.0	32.64	7 1	1½	8-8-48	.....	40.0	21.60	9-9-54		
Railroad shops, road C.....	68.0	32.64	1½	1½	8-8-48	.....	42.5	22.95	9-9-54		
Railroad shops, road D.....	68.0	32.64	7 1	1½	8-8-48	.....	42.0	22.68	9-9-54		
Railroad shops, road E.....	68.0	32.64	7 1	1½	8-8-48	.....	38.5	20.79	9-9-54		
Cleveland, Ohio:												
Manufacturing shops.....	60.0	30.00	4 1½	2	9-5-50	12	45.0	22.50	9-5-50			
Outside.....	85.0	37.40	4 1½	2	8-4-44	12	65.0	28.60	8-4-44			
Specialists.....	40.0	20.00	4 1½	2	9-5-50	12	36.1	18.06	9-5-50			
Tool and die makers.....	70.0	35.00	4 1½	2	9-5-50	12	58.3	29.17	9-5-50			
Railroad shops.....	68.0	32.64	5 1	1½	8-8-48	.....	42.0	21.00	9-5-50		
Columbus, Ohio:												
Manufacturing shops.....	40.0	19.80	4 1½	2	9-4½-49½	12	40.0	19.80	9-4½-49½			
Railroad shops, road A.....	68.0	32.64	1½	1½	8-8-48	.....	(13)	(18)	(18)		
Railroad shops, road B.....	68.0	32.64	1½	1½	8-8-48	.....	(13)	(18)	(18)		
Railroad shops, road C.....	68.0	32.64	7 1	1½	8-8-48	.....	(13)	(18)	(18)		
Railroad shops, road D.....	68.0	32.64	7 1	1½	8-8-48	.....	(18)	(18)	(18)		
Railroad shops, road E.....	68.0	32.64	7 1	1½	8-8-48	.....	(18)	(18)	(18)		
Davenport, Iowa, and Moline and Rock Island, Ill.:	68.0	32.64	1½	1½	8-8-48	.....	43.5	23.44	9-8-53		
Des Moines, Iowa:												
Manufacturing shops.....	55.0	29.70	4 1½	2	9-9-54	.....	43.5	23.49	9-9-54		
Railroad shops.....	68.0	32.64	7 1	1½	8-8-48	.....	43.5	23.49	9-9-54		

¹ For explanation of changes in rates in railroad shops see p. 139.

² 44 hours per week, June to September, inclusive.

³ Work 53 hours, paid for 53 hours and 53 minutes.

⁴ Double time after midnight.

⁵ Time and one-half after 1 hour; on Saturday for all overtime.

⁶ Work 53 hours, paid for 54.

⁷ Time and one-half after 1 hour.

⁸ Scale became 50 cents on June 1, 1918.

⁹ Not organized on May 15, 1917.

¹⁰ For Sundays, July 4, Labor Day, and Christmas; other holidays, single time.

¹¹ Double time after 10 p. m.

¹² Scale became 60 cents on June 1, 1918.

¹³ No scale in effect on May 15, 1917.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
MACHINISTS—continued.										
Detroit, Mich.:			Regular rate multiplied by—							
All-round men, manufac- turing shops, A.....	Cents. 75.0	Dolls. 37.50	1½	2	9 - 5 - 50	12	Cents. 47.0	Dolls. 23.50	9 - 5 - 50	
All-round men, manufac- turing shops, B.....	72.5	39.88	1½	2	10 - 5 - 55	12	42.0	23.10	10 - 5 - 55	
Outside.....	80.0	38.40	1½	2	8 - 8 - 48		62.5	30.00	8 - 8 - 48	
Jobbing shops.....	72.5	39.15	1½	2	9 - 9 - 54		45.0	24.30	9 - 9 - 54	
Tool and die makers, man- ufacturing shops, A.....	80.0	38.40	1½	2	8 - 8 - 48		52.0	26.00	9 - 5 - 50	
Tool and die makers, man- ufacturing shops, B.....	77.5	37.20	1½	2	8 - 8 - 48		48.0	26.40	10 - 5 - 55	
Tool and die makers (die makers' trimmers).....	70.0	33.60	1½	2	8 - 8 - 48		50.0	27.50	10 - 5 - 55	
Tool and die makers (die sinkers).....	100.0	48.00	1½	2	8 - 8 - 48		65.0	35.75	10 - 5 - 55	
Railroad shops, road A.....	68.0	32.64	1½	1½	8 - 8 - 48		31.0	18.60	10 - 10 - 60	
Railroad shops, road D.....	68.0	32.64	1½	1½	8 - 8 - 48		35.5	19.17	9 - 9 - 54	
Grand Rapids, Mich.:										
Manufacturing shops, A.....	35.0	18.90	1½	1½	9 - 9 - 54		27.5	14.85	9 - 9 - 54	
Manufacturing shops, B.....	35.0	20.65	1½	1½	10 - 9 - 59	3	27.5	16.23	10 - 9 - 59	
Manufacturing shops, C.....	35.0	16.80	1½	2	8 - 8 - 48		27.5	13.20	8 - 8 - 48	
Tool and die makers, shops A.....	60.0	32.40	1½	1½	9 - 9 - 54		27.5	14.85	9 - 9 - 54	
Tool and die makers, shops B.....	60.0	35.40	1½	1½	10 - 9 - 59	3	27.5	16.23	10 - 9 - 59	
Tool and die makers, shops C.....	60.0	28.80	1½	2	8 - 8 - 48		27.5	13.20	8 - 8 - 48	
Railroad shops, road A.....	68.0	40.12	1	1	8 - 8 - 48		38.0	20.90	10 - 5 - 55	
Railroad shops, road B.....	68.0	40.80	1½	1½	8 - 8 - 48		39.5	23.70	10 - 10 - 60	
Indianapolis, Ind.:										
Breweries.....	52.5	25.20	4 1½	2	8 - 8 - 48		45.0	21.60	8 - 8 - 48	
Manufacturing shops.....	62.5	30.00	4 1½	2	8 - 8 - 48		47.5	23.75	9 - 5 - 50	
Railroad shops, road A.....	68.0	34.00	6 1	1½	8 - 8 - 48		38.5	19.25	9 - 5 - 50	
Railroad shops, road B.....	68.0	36.72	7 1	1½	8 - 8 - 48		38.5	20.79	9 - 9 - 54	
Railroad shops, road C.....	68.0	36.72	7 1	1½	8 - 8 - 48		40.5	21.87	9 - 9 - 54	
Kansas City, Mo.:										
Breweries.....	75.0	36.00	4 1½	2	8 - 8 - 48		56.0	26.88	8 - 8 - 48	
Manufacturing shops.....	75.0	36.00	4 1½	2	8 - 8 - 48		50.0	24.00	8 - 8 - 48	
Outside.....	62.5	27.50	4 1½	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Tool and die makers, man- ufacturing shops.....	78.0	37.44	4 1½	2	8 - 8 - 48		52.5	25.20	8 - 8 - 48	
Railroad shops, road A.....	68.0	32.64	7 1	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1½	1½	8 - 8 - 48		42.5	20.40	8 - 8 - 48	
Railroad shops, road C.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road D.....	68.0	32.64	7 1	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road E.....	68.0	32.64	6 1	1½	8 - 8 - 48		44.0	23.71	9 - 8 - 53	
Railroad shops, road F.....	68.0	32.64	1½	1½	8 - 8 - 48		43.5	23.44	9 - 8 - 53	
Railroad shops, road H.....	68.0	32.64	1½	1½	8 - 8 - 48		44.0	23.76	9 - 9 - 54	
Railroad shops, road I.....	68.0	32.64	7 1	1½	8 - 8 - 48		42.5	22.95	9 - 9 - 54	
Railroad shops, road J.....	68.0	32.64	7 1	1½	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road K.....	68.0	32.64	4 1½	2	8 - 8 - 48		43.5	23.49	9 - 8 - 53	

¹ Time and one-half after 2 hours.

² Work 70 hours every other week.

³ 55 hours per week, June to August, inclusive.

⁴ Double time after midnight.

⁵ Scale became 65 cents on June 10, 1918.

⁶ Time and one-half after 1 hour; on Saturday for all overtime.

⁷ Time and one-half after 1 hour.

⁸ Work 53 hours, paid for 53 hours and 53 minutes.

⁹ Work 53 hours, paid for 54.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.		
MACHINISTS—continued.			Regular rate multiplied by—							
Milwaukee, Wis.:	Cents.	Dolls.					Cents.	Dolls.		
Breweries.....	1 55.0	24.20	2 1 1/2	3 2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Manufacturing shops.....	42.0	22.05	1 1/2	2	9 1/2 - 5 - 52 1/2	12	42.0	22.05	9 1/2 - 5 - 52 1/2	
Railroad shops.....	68.0	32.64	4 1/2	1 1/2	8 - 8 - 48		43.5	22.19	9 - 5 - 50	
Minneapolis, Minn.:										
Manufacturing shops.....	5 40.0	21.60	1 1/2	2	9 - 9 - 54		40.0	21.60	9 - 9 - 54	
Railroad shops, road A.....	68.0	32.64	4 1/2	1 1/2	8 - 8 - 48		53.0	25.44	8 - 7 - 47	
Railroad shops, road B.....	68.0	32.64	4 1/2	1 1/2	8 - 8 - 48		45.5	23.21	9 - 5 - 50	
Omaha, Nebr.:										
Manufacturing shops.....	60.0	28.80	4 1/2	1 1/2	8 - 8 - 48		45.0	24.30	9 - 9 - 54	
Manufacturing and job- bing shops.....	60.0	28.80	1 1/2	1 1/2	8 - 8 - 48		50.0	27.00	9 - 9 - 54	
Railroad shops, road A.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.5	24.57	9 - 9 - 54	
Railroad shops, road B.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		44.0	23.71	9 - 8 - 53	
Peoria, Ill.:										
Jobbing shops.....	8 55.0	26.40	2	2	8 - 8 - 48		45.0	24.30	9 - 9 - 54	
Railroad shops, roads A and B.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		43.5	23.49	9 - 9 - 54	
Railroad shops, road C.....	68.0	32.64	9 1	1 1/2	8 - 8 - 48		42.5	21.25	9 - 9 - 54	
Railroad shops, road D.....	68.0	32.64	10 1	1 1/2	8 - 8 - 48		42.5	21.25	9 - 5 - 50	
St. Louis, Mo.:										
Breweries.....	11 57.5	27.60	4 1/2	2	8 - 8 - 48		55.0	26.40	8 - 8 - 48	
Manufacturing shops.....	60.0	28.80	4 1/2	2	8 - 8 - 48		44.0	23.76	12 9 - 9 - 54	
Outside.....	75.0	33.00	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Printing machinery, re- pair shops.....	60.0	26.40	4 1/2	2	8 - 4 - 44	12	50.0	24.00	8 - 8 - 48	
Specialists.....	45.0	21.60	4 1/2	2	8 - 8 - 48		32.0	17.28	12 9 - 9 - 54	
Tool and die makers.....	65.0	31.20	4 1/2	2	8 - 8 - 48		55.0	29.70	12 9 - 9 - 54	
Railroad shops, road A.....	68.0	32.64	9 1	1 1/2	8 - 8 - 48		46.5	25.11	9 - 9 - 54	
Railroad shops, road B, day.....	68.0	36.64	10 1	1 1/2	8 - 8 - 48		44.0	23.71	9 - 8 - 53	
Railroad shops, road B, night work.....	68.0	32.64	13 1	1 1/2	8 - 8 - 48		44.0	26.39	14 10 - 9 - 59	
Railroad shops, road C.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.0	21.60	8 - 8 - 48	
Do.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.0	24.30	9 - 9 - 54	
Railroad shops, road C, night work.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.0	21.60	8 - 8 - 48	
Do.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		45.0	24.30	9 - 9 - 54	
Railroad shops, road F.....	68.0	32.64	9 1	1 1/2	8 - 8 - 48		42.0	22.68	9 - 9 - 54	
Railroad shops, road G.....	68.0	32.64	10 1	1 1/2	8 - 8 - 48		43.5	23.44	9 - 8 - 53	
Railroad shops, road H.....	68.0	32.64	1 1/2	1 1/2	8 - 8 - 48		43.5	23.49	9 - 9 - 54	

1 Scale became 65 cents on June 4, 1918.

2 Double time after 2 hours.

3 Time and one-half on Saturday afternoon for 2 hours; double time thereafter.

4 Double time after midnight.

5 Scale became 72.5 cents and 48 hours on June 6, 1918.

6 Work 50 hours, paid for 51; 53 hours, paid for 54, October to April, inclusive.

7 Work 53 hours, paid for 53 hours and 53 minutes.

8 Scale became 75 cents on July 3, 1918.

9 Time and one-half after 1 hour.

10 Time and one-half after 1 hour; on Saturday for all overtime.

11 Scale became 61.5 cents on June 16, 1918.

12 Hours vary, but total 54 per week.

13 Time and one-half after 2 hours; on Saturday after 1 hour.

14 Work 59 hours, paid for 59 hours and 59 minutes.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.					
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.			
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
MACHINISTS—concluded.												
St. Paul, Minn.:												
All-round men, manufac- turing shops.....	Cents. 40.0	Dolls. 21.60					Cents. 40.0	Dolls. 21.60				
Railroad shops, road A.....	68.0	32.64	² $\frac{1}{2}$	2	9-9-54		45.5	23.21			9-9-54	
Railroad shops, roads B and C.....	68.0	32.64	² $\frac{1}{2}$	$\frac{1}{2}$	8-8-48		45.5	23.21			9-5-50	
Railroad shops, road E.....	68.0	32.64	² $\frac{1}{2}$	$\frac{1}{2}$	8-8-48		53.0	27.03			9-5-50	
Wichita, Kans.:												
Railroad shops, road A.....	68.0	32.64	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		44.0	23.76			9-9-54	
Railroad shops, road B.....	68.0	32.64	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		44.0	20.68			8-7-47	
Railroad shops, road B, running repair men.....	68.0	32.64	⁶ 1	$\frac{1}{2}$	8-8-48		44.0	26.39			9 $\frac{1}{2}$ -8 $\frac{1}{2}$ -57	
Railroad shops, road C, daywork.....	68.0	32.64	⁸ 1	$\frac{1}{2}$	8-8-48		44.0	23.76			9-8-53	
Railroad shops, road C, night work.....	68.0	32.64	⁶ 1	$\frac{1}{2}$	8-8-48		44.0	20.68			9 $\frac{1}{2}$ -8 $\frac{1}{2}$ -57	
Railroad shops, road D.....	68.0	32.64	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		44.0	23.76			9-8-53	
MACHINISTS' HELPERS. ¹⁰												
Chicago, Ill.:												
Manufacturing shops.....	38.0	18.24	2	2	11-8-8-48	4	38.0	18.24			8-8-48	
Outside.....	50.0	22.00	2	2	8-4-44	12	50.0	22.00			8-4-44	
Railroad shops, road B.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		23.5	12.69			9-9-54	
Railroad shops, road C.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		26.5	14.28			9-8-53	
Cincinnati, Ohio:												
Railroad shops, road A.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		21.0	11.34			9-9-54	
Railroad shops, road B.....	45.0	24.30	¹² 1	$\frac{1}{2}$	9-9-48		21.5	11.61			9-9-54	
Railroad shops, road C.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		22.0	11.88			9-9-54	
Cleveland, Ohio:												
Outside.....	45.0	19.80	² $\frac{1}{2}$	2	8-4-44	12	45.0	19.80			8-4-44	
Davenport, Iowa, and Mo- line and Rock Island, Ill.:												
Railroad shops.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		26.5	14.28			9-8-53	
Indianapolis, Ind.:												
Railroad shops, road B.....	45.0	21.60	¹² 1	$\frac{1}{2}$	8-8-48		21.5	11.61			9-9-54	
Kansas City, Mo.:												
Breweries.....	50.0	24.00	$\frac{1}{2}$	2	8-8-48		36.0	17.28			8-8-48	
Outside.....	50.0	22.00	² $\frac{1}{2}$	2	8-4-44		43.8	19.25			8-4-44	
Railroad shops, road A.....	45.0	24.60	¹² 1	$\frac{1}{2}$	8-8-48		25.0	13.50			9-9-54	
Railroad shops, road B.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		23.5	11.28			8-8-48	
Railroad shops, road C.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		22.5	12.15			9-9-54	
Railroad shops, road D.....	45.0	21.60	1	$\frac{1}{2}$	8-8-48		22.5	12.15			9-9-54	
Railroad shops, road E.....	45.0	21.60	⁸ 1	$\frac{1}{2}$	8-8-48		22.5	12.12			9-8-53	
Railroad shops, road F.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		26.5	14.28			9-8-53	
Railroad shops, road H.....	45.0	21.60	$\frac{1}{2}$	$\frac{1}{2}$	8-8-48		22.5	12.15			9-9-54	
Railroad shops, road I.....	45.0	21.60	¹² 1	$\frac{1}{2}$	8-8-48		25.0	13.50			9-9-54	
Railroad shops, road J.....	45.0	21.60	¹² 1	$\frac{1}{2}$	8-8-48		24.0	12.96			9-9-54	
Railroad shops, road K.....	45.0	21.60	² $\frac{1}{2}$	$\frac{1}{2}$	8-8-48		22.0	11.88			13-9-8-53	

¹ Scale became 72.5 cents and 48 hours on June 6, 1918.

² Double time after midnight.

³ Work 50 hours, paid for 51; 53 hours, paid for 54, April to October, inclusive.

⁴ With a minimum of 5 hours' pay for $\frac{3}{4}$ hours' or less work.

⁵ Work 47 hours, paid for 47 hours and 47 minutes.

⁶ Time and one-half after 1 hour and 40 minutes; on Saturday after 40 minutes.

⁷ Work 57 hours, paid for 59 hours and 59 minutes.

⁸ Time and one-half after 1 hour; on Saturday for all overtime.

⁹ Work 53 hours, paid for 53 hours and 53 minutes.

¹⁰ For explanation of changes in rates in railroad shops see p. 139.

¹¹ 44 hours per week, June to September, inclusive.

¹² Time and one-half after 1 hour.

¹³ Work 53 hours, paid for 54.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.	
MACHINISTS' HELPERS— concluded.			<i>Regular rate multiplied by—</i>						
Minneapolis, Minn.: Railroad shops.....	Cents. 45.0	Dolls. 21.60	¹ / ₁	¹ / ₂	8 - 8 - 48	.....	Cents. 26.5	Dolls. 12.72	² / ₈ - 7 - 47
Peoria, Ill.: Railroad shops, road C.....	45.0	21.60	³ / ₁	¹ / ₂	8 - 8 - 48	.....	23.0	12.42	9 - 9 - 54
Railroad shops, road D.....	45.0	21.60	⁴ / ₁	¹ / ₂	8 - 8 - 48	.....	12 23.0	11.50	9 - 5 - 50
St. Louis, Mo.: Railroad shops, road A.....	45.0	21.60	³ / ₁	¹ / ₂	8 - 8 - 48	.....	27.0	14.53	9 - 9 - 54
Railroad shops, road B.....	45.0	21.60	⁴ / ₁	¹ / ₂	8 - 8 - 48	.....	22.5	12.12	⁸ / ₉ - 8 - 53
Railroad shops, road B, night work.....	45.0	21.60	⁶ / ₁	¹ / ₂	8 - 8 - 48	.....	22.5	13.50	⁷ / ₁₀ - 9 - 59
Railroad shops, road C.....	45.0	21.60	¹ / ₁	¹ / ₂	8 - 8 - 48	.....	24.0	12.96	9 - 9 - 54
Railroad shops, road C, night work.....	45.0	21.60	¹ / ₂	¹ / ₂	8 - 8 - 48	.....	24.0	12.96	9 - 9 - 54
Railroad shops, road C.....	45.0	21.60	¹ / ₂	¹ / ₂	8 - 8 - 48	.....	24.0	11.52	8 - 8 - 48
Railroad shops, road F.....	45.0	21.60	³ / ₁	¹ / ₂	8 - 8 - 48	.....	25.0	13.50	9 - 9 - 54
Railroad shops, road G.....	45.0	21.60	⁴ / ₁	¹ / ₂	8 - 8 - 48	.....	27.5	14.82	⁶ / ₉ - 8 - 53
St. Paul, Minn.: Railroad shops, road A.....	45.0	21.60	¹ / ₁	¹ / ₂	8 - 8 - 48	.....	21.5	11.61	⁸ / ₉ - 8 - 53
Railroad shops, road C.....	45.0	21.60	¹ / ₂	¹ / ₂	8 - 8 - 48	.....	27.0	14.58	⁸ / ₉ - 8 - 53
Wichita, Kans.: Railroad shops, road B, running repair men.....	45.0	21.60	⁹ / ₁	¹⁰ / ₁	8 - 8 - 48	.....	22.5	13.50	¹¹ / ₉ - 8 - 57
Railroad shops, road B, back shop.....	45.0	21.60	¹ / ₂	¹⁰ / ₁	8 - 8 - 48	.....	22.5	10.75	¹² / ₈ - 7 - 47
Railroad shops, road C.....	45.0	21.60	⁴ / ₁	¹⁰ / ₁	8 - 8 - 48	.....	23.5	11.23	⁹ / ₈ - 8 - 53
Railroad shops, road C, night work.....	45.0	21.60	¹² / ₁	¹⁰ / ₁	8 - 8 - 48	.....	23.5	12.66	¹¹ / ₉ - 8 - 57
METAL POLISHERS AND BUFFERS.									
Chicago, Ill.....	56.0	26.88	¹ / ₂	2	8 ¹ / ₂ - 4 ¹ / ₂ - 48	12	46.0	22.08	8 ¹ / ₂ - 4 ¹ / ₂ - 48
Cincinnati, Ohio.....	45.0	23.63	¹ / ₂	2	9 ¹ / ₂ - 5 - 52 ¹ / ₂	12	40.0	21.00	9 ¹ / ₂ - 5 - 52 ¹ / ₂
Jobbing shops.....	50.0	24.00	¹ / ₂	2	14 8 - 8 - 48	.....	43.8	21.00	8 ¹ / ₂ - 5 ¹ / ₂ - 48
Cleveland, Ohio.....	¹⁰ / ₅₅ 50.0	25.40	¹ / ₂	2	14 8 - 8 - 48	.....	50.0	24.00	¹⁴ / ₈ - 8 - 48
Columbus, Ohio.....	37.5	20.63	¹ / ₂	¹⁶ / ₂	10 - 5 - 55	12	35.0	19.25	10 - 5 - 55
Davenport, Iowa, and Mo- line and Rock Island, Ill.....	66.7	36.00	¹ / ₂	2	¹⁷ / ₉ - 9 - 54	3	56.5	30.51	9 - 9 - 54
Detroit, Mich.: Shops A.....	63.0	37.80	¹ / ₂	2	10 - 10 - 60	.....	40.0	24.00	10 - 10 - 60
Shops B.....	66.6	36.00	¹ / ₂	2	9 - 9 - 54	.....	55.0	29.70	9 - 9 - 54
Shops C.....	63.0	34.02	¹ / ₂	2	¹⁸ / ₉ - 9 - 54	.....	50.0	27.00	9 - 9 - 54
Shops D.....	63.0	31.50	¹ / ₂	2	9 - 5 - 50	12	40.0	20.00	9 - 5 - 50
Stove works.....	66.6	36.00	¹ / ₂	2	¹⁹ / ₉ - 7 ¹ / ₂ - 52 ¹ / ₂	.....	55.0	28.88	¹⁸ / ₉ - 7 ¹ / ₂ - 52 ¹ / ₂
Grand Rapids, Mich.....	50.0	27.00	¹ / ₂	2	9 - 9 - 54	.....	52.2	25.50	9 - 9 - 54
Indianapolis, Ind.....	45.0	22.50	¹ / ₂	2	9 - 5 - 50	12	40.0	20.00	9 - 5 - 50
Kansas City, Mo.....	60.0	28.80	¹ / ₂	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48
Milwaukee, Wis.....	50.0	24.75	¹ / ₂	2	9 - 4 ¹ / ₂ - 49 ¹ / ₂	12	40.0	22.00	10 - 5 - 55

¹ Double time after midnight.

² Work 47 hours, paid for 48.

³ Time and one-half after 1 hour.

⁴ Time and one-half after 1 hour; on Saturday for all overtime.

⁵ Work 53 hours, paid for 53 hours and 53 minutes.

⁶ Time and one-half after 2 hours; on Saturday after 1 hour.

⁷ Work 59 hours, paid for 59 hours and 59 minutes.

⁸ Work 53 hours, paid for 54.

⁹ Time and one-half after 1 hour and 40 minutes; on Saturday for all overtime.

¹⁰ With a minimum of 5 hours' pay for 3¹/₂ hours' or less work.

¹¹ Work 57 hours, paid for 59 hours and 59 minutes.

¹² Work 47 hours, paid for 47 hours and 47 minutes.

¹³ Time and one-half after 1 hour and 40 minutes; on Saturday after 40 minutes.

¹⁴ Hours vary, but total 48 per week.

¹⁵ Scale became 63 cents on July 1, 1918.

¹⁶ Time and one-half on Saturday afternoon.

¹⁷ 50 hours per week, June to August, inclusive.

¹⁸ 50 hours per week, November to February, inclusive.

¹⁹ Work 52¹/₂ hours, paid for 54.

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UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH CENTRAL STATES, ON MAY 15, 1918, AND MAY 15, 1917—Concluded.

METAL TRADES—Concluded.

Occupation and city.	May 15, 1918.						Mos. with Sat-ur-day half holi-day.	May 15, 1917.		
	Rate of wages—				Hours—Full days; Saturdays; Full week.	Rate of wages—		Hours—Full days; Saturdays; full week.		
	Per hour.	Per week, full time.	For over-time.	For Sun-days and holi-days.		Per hour.			Per week, full time.	
MOLDERS, IRON.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Chicago, Ill.	68.8	33.00	1½	2	8 - 8 - 48		56.3	27.00	8 - 8 - 48	
Cincinnati, Ohio.	55.5	30.00	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
Cleveland, Ohio.	61.1	33.00	1½	2	9 - 9 - 54	4	44.4	24.00	9 - 9 - 54	
Columbus, Ohio.	58.3	31.50	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
Detroit, Mich.	61.1	33.00	1½	2	9 - 9 - 54		50.0	27.00	9 - 9 - 54	
Des Moines, Iowa.	50.0	27.00	1½	2	9 - 9 - 54		40.0	21.60	9 - 9 - 54	
Grand Rapids, Mich.	44.4	24.00	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
Indianapolis, Ind.	55.5	30.00	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
Kansas City, Mo.	60.0	32.40	1½	2	9 - 9 - 54		50.0	27.00	9 - 9 - 54	
Minneapolis, Minn.	55.5	30.00	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
Omaha, Nebr.	55.5	30.00	1½	2	9 - 9 - 54		45.0	24.30	9 - 9 - 54	
Peoria, Ill.	55.5	30.00	1½	2	9 - 9 - 54		44.4	24.00	9 - 9 - 54	
St. Louis, Mo.	61.1	33.00	1½	2	9 - 9 - 54		50.0	27.00	9 - 9 - 54	
St. Paul, Minn.	55.5	30.00	1½	2	9 - 9 - 54		47.2	25.50	9 - 9 - 54	
PATTERN MAKERS, WOOD.										
Chicago, Ill.:										
Manufacturing shops, wood and metal.	75.0	40.50	2	2	9 - 9 - 54		55.0	29.70	9 - 9 - 54	
Jobbing shops, wood.	90.0	39.60	2	2	8 - 4 - 44	12	75.0	33.00	8 - 4 - 44	
Cincinnati, Ohio:										
Manufacturing shops, wood.	65.0	34.13	2	2	9½ - 5 - 52½	12	48.0	25.20	9½ - 5 - 52½	
Jobbing shops, wood.	70.0	35.00	2	2	9 - 5 - 50	12	60.0	30.00	9 - 5 - 50	
Cleveland, Ohio:										
Manufacturing shops.	75.0	40.50	2	2	9 - 9 - 54		57.5	31.05	9 - 9 - 54	
Jobbing shops.	80.0	35.20	2	2	8 - 4 - 44	12	62.5	27.81	8 - 4½ - 44½	
Columbus, Ohio.	70.0	33.00	1½	2	10 - 5 - 55	12	52.5	28.88	10 - 5 - 55	
Davenport, Iowa, and Mo-line and Rock Island, Ill.:										
Manufacturing shops.	55.0	30.25	1½	1½	10 - 5 - 55	4	40.0	23.60	10 - 9 - 59	
Jobbing shops.	70.0	35.00	1½	2	9 - 5 - 50	12	55.0	32.45	10 - 9 - 59	
Detroit, Mich.:										
Manufacturing shops A, wood and metal.	75.0	37.50	2	2	9 - 5 - 50	12	55.0	27.50	9 - 5 - 50	
Manufacturing shops B, wood and metal.	75.0	40.50	2	2	9 - 9 - 54		55.0	29.70	9 - 9 - 54	
Jobbing shops.	85.0	37.40	2	2	8 - 4 - 44	12	65.0	28.60	8 - 4 - 44	
Grand Rapids, Mich.:										
Manufacturing shops A.	65.0	38.00	1½	2	10 - 10 - 60		50.0	27.00	9 - 9 - 54	
Manufacturing shops B.	65.0	35.10	1½	2	9 - 9 - 54		50.0	24.75	9 - 4½ - 49½	
Jobbing shops A.	75.0	33.38	2	2	8 - 4½ - 44½	12	55.0	27.23	9 - 4½ - 49½	
Jobbing shops B.	75.0	37.50	2	2	9 - 5 - 50	12	55.0	27.50	9 - 5 - 50	
Indianapolis, Ind.:										
Manufacturing shops.	70.0	35.00	2	2	9 - 5 - 50	12	45.0	22.50	9 - 5 - 50	
Jobbing shops.	78.0	35.20	2	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Kansas City, Mo.	55.0	27.50	2	2	9 - 5 - 50	12	(14)	(14)	(14)	
Milwaukee, Wis.:										
Jobbing shops.	47.0	30.80	1½	2	8 - 4 - 44	12	55.0	25.71	8½ - 4½ - 46½	
Minneapolis, Minn.	55.0	29.70	1½	2	9 - 9 - 54		48.0	26.40	10 - 5 - 55	
St. Louis, Mo.:										
Manufacturing shops.	70.0	35.00	2	2	9 - 5 - 50	12	53.0	26.50	9 - 5 - 50	
Jobbing shops.	67.0	33.00	2	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
St. Paul, Minn.	55.0	29.70	1½	2	9 - 9 - 54		46.0	25.30	10 - 5 - 55	

¹ Scale became 58.3 cents on May 16, 1918.

² Time and one-half on Saturday afternoon, May 2 to August, inclusive.

³ 50 hours per week, May to August, inclusive.

⁴ 49½ hours per week, May 19, to Sept. 15, inclusive.

⁵ Scale became 58.3 cents on Aug. 1, 1918.

⁶ Scale became \$1 on July 1, 1918.

⁷ Scale became 75 cents on June 1, 1918.

⁸ Scale became 60 cents on June 1, 1918.

⁹ 59 hours per week, September to April, inclusive.

¹⁰ 50 hours per week, September to March, inclusive.

¹¹ Scale became 80 cents on July 1, 1918.

¹² Scale became 85 cents on June 1, and 90 cents on July 1, 1918.

¹³ Scale became 65 cents on July 1, and 70 cents on Aug. 1, 1918.

¹⁴ No scale in effect on May 15, 1917.

¹⁵ Scale became 75 cents on July 1, 1918.

¹⁶ Scale became 90 cents on June 17, 1918.

WAR BONUSES FOR GOVERNMENT EMPLOYEES IN GREAT BRITAIN.

An account was given in the MONTHLY LABOR REVIEW for August, 1918, pages 84-89, of the functions of the Conciliation and Arbitration Board for Government Employees in Great Britain and of the awards made to employees in the civil service to the end of 1917.

Two awards have recently been made which affect a large proportion of the employees in the civil service. These awards were made in response to claims presented by six associations in the post office department and general civil service for further temporary increases in remuneration owing to war conditions.

The three classes whose claims were presented were those whose ordinary remuneration does not exceed 60s. (\$14.60) a week and who are in receipt of a war bonus under award No. 17; those whose ordinary remuneration exceeds 60s. (\$14.60) weekly but does not exceed £500 (\$2,433.25) a year and who are in receipt of a war bonus under award No. 18, and employees whose ordinary remuneration exceeds £500 (\$2,433.25) a year. No claim had previously been made in behalf of the last class. The first two classes of employees are dealt with in awards Nos. 51 and 52; the last is reserved by the board for further consideration.

A claim which was made by some of the applicants that the treasury ruling by which the war bonus is considered in calculating the civil pay of married employees serving with the military forces should be extended to single men having dependents was not allowed as this was considered by the committee to be outside the scope of their authority to determine.

Under award No. 51, granted by the board, employees receiving less than 60s. (\$14.60) a week are granted such further increases, owing to the continuance of abnormal conditions, as will bring the total amount of the war bonus for men of 21 years and upwards to 19s. (\$4.62), for men under 21 but not under 18 years of age to 15s. (\$3.65), and for men under 18 years of age to 9s. 6d. (\$2.31) weekly; women 18 years old and over will receive 12s. 6d. (\$3.04), and those under 18 years of age 9s. 6d. (\$2.31) weekly—these awards to take effect as from July 1, 1918. If in any cases employees had been granted temporary increases in excess of the amounts payable under award No. 17, this increase does not apply to them.

Award No. 52 deals with permanent employees whose ordinary remuneration exceeds £156 10s. (\$761.61) a year but does not exceed £500 (\$2,433.25). The award for men gives an annual war bonus over and above any such increases they are now receiving of £15 (\$73) and provides that in no case shall the total of the war bonus be less than £50 (\$243.33). In the case of women the addi-

tional award is £10 (\$48.67) yearly and in no case shall the total war bonus be less than £33 (\$160.59). This award also was effective July 1, 1918.

WAGES AND HOURS OF LABOR IN GERMANY DURING THE WAR.¹

WAGES.

In order to arrive at some general conclusion as to the trend of wages of adult workers in Germany during the war period in various industry groups, the imperial statistical office at fixed periods has sent out schedules to all the industrial establishments from which it receives monthly reports on the state of employment. Among other things the statistical office inquired concerning the number of full days worked by adult male and female workers, the sum of wages paid to them, and their regular weekly net hours of labor in the last two full weeks of March and September, 1914, 1915, 1916, and 1917. Although the compilation of the data obtained has not been completed, the statistical office from time to time has published in the *Reichs-Arbeitsblatt* preliminary statements of the principal results. The most recent of these statements has been published in the *Reichs-Arbeitsblatt* of April 27, 1918, and brings the investigation to September, 1917.

In its various statements on the subject of wages the imperial statistical office repeatedly admits that the data on this point were very scant—only 374 questionnaires relating to 12 industry groups were filled out properly during the investigation for September, 1917—and that, therefore, the results could not be considered typical.

The most recent investigation shows that the upward tendency of the wage curve of adult workers has continued during the period March to September, 1917, and that at the end of that period the average daily wages of both male and female adult workers were more than twice as high as in March, 1914, the wages of male workers having increased 109.1 per cent and those of female workers 112.7 per cent. For each of the eight periods of investigation the average daily wage of male and female workers has been the following:

AVERAGE DAILY WAGE OF ADULT WORKERS IN GERMANY, AT SPECIFIED PERIODS.

Period.	Average daily wage of—	
	Male workers.	Female workers.
	<i>Marks.</i>	<i>Marks.</i>
Last two full weeks of March, 1914.....	5.16 (\$1.23)	2.29 (\$0.55)
Last two full weeks of September, 1914.....	5.12 (1.22)	1.94 (.46)
Last two full weeks of March, 1915.....	5.88 (1.40)	2.25 (.54)
Last two full weeks of September, 1915.....	6.55 (1.56)	2.55 (.61)
Last two full weeks of March, 1916.....	7.00 (1.67)	3.02 (.72)
Last two full weeks of September, 1916.....	7.55 (1.80)	3.52 (.84)
Last two full weeks of March, 1917.....	9.08 (2.16)	4.06 (.97)
Last two full weeks of September, 1917.....	10.79 (2.57)	4.87 (1.16)

¹ See also "Wages in Germany," in MONTHLY REVIEW for December, 1917, pp. 40-50.

According to the preceding data the wages of male workers experienced the largest increase during the six months' period from September, 1916, to March, 1917, namely, of 20.3 per cent. This phenomenon may be due to the coming in force of the auxiliary service law and the greatly increased production of war materials during the period in question consequent to the so-called Hindenburg program. During the subsequent period of March to September, 1917, the increase was less marked, amounting only to 18.8 per cent. The average wages of female workers did not increase in the same measure during the period September, 1916, to March, 1917, as in the preceding six months' period; the increase was 15.3 per cent as against 16.6 per cent. In the period March to September, 1917, however, the increase amounted to 20 per cent, the largest increase for any of the eight periods of investigation.

As to the development of wages in the individual industry groups the results of the most recent investigation were as follows:

WAGES IN MARCH, 1914, AND SEPTEMBER, 1917, AND PER CENT OF INCREASE IN SEPTEMBER, 1917, OVER MARCH, 1914, IN SPECIFIED INDUSTRY GROUPS.¹

Industry group.	Average daily wages of—				
	Male workers.		Per cent of increase.	Female workers.	
	March, 1914.	September, 1917.		March, 1914.	September, 1917.
	Marks.	Marks.		Marks.	Marks.
Machinery.....	5.32 (\$1.27)	10.79 (\$2.57)	102.8	2.28 (\$0.54)	4.88 (\$1.16)
Electrical.....	4.52 (1.08)	10.93 (2.60)	141.8	2.75 (.65)	6.18 (1.47)
Iron and metal.....	5.55 (1.32)	11.81 (2.81)	112.8	2.06 (.49)	5.67 (1.35)
Chemical.....	5.14 (1.22)	9.89 (2.35)	92.4	2.36 (.56)	5.18 (1.23)
Paper.....	3.93 (.94)	7.37 (1.75)	87.5	2.15 (.51)	4.09 (.97)
Woodworking.....	4.22 (1.00)	7.80 (1.86)	84.8	1.99 (.47)	3.81 (.91)
Food.....	5.70 (1.36)	7.51 (1.79)	31.8	2.10 (.50)	3.72 (.86)
Leather and rubber.....	5.04 (1.20)	7.79 (1.85)	54.6	2.80 (.67)	4.15 (.99)
Earths and stones.....	4.45 (1.06)	7.07 (1.68)	58.9	1.67 (.40)	2.87 (.68)

¹ In the absence of a current basis for conversion the German marks have been converted into dollars at the rate of \$0.238, the prewar rate.

The report states that wages have also increased in the printing trades and the textile and the clothing industries, but that in the case of these three industry groups the upward tendency of wages was less marked than in the industry groups included in the preceding table.

The wage statistics of the German statistical office reproduced here show that beginning with September, 1914, wages have continuously increased up to September, 1917, in all German industries, in some more and in others less, and that since March, 1914, the average wages of male workers have increased 109.1 per cent and those of female workers 112.7 per cent. Consideration of these statistics alone would, therefore, lead to the conclusion that econom-

ically the German workers have fared fairly well during the war. When, however, the present high cost of living in Germany is taken into account the aspect of these official wage statistics becomes entirely different.

Cost of living statistics of German workmen's and salaried employees' families for the month of April, 1916, published by the imperial statistical office¹ show that nearly all these families lived far beyond their incomes derived from earnings and that the deficit of their budget had to be covered from other sources of income or from savings, while families having neither other sources of income nor savings were forced to contract debts in order to obtain the necessities of life. The said statistics indicated that on an average 52.14 per cent of the income of these families went for food. Subsequent statistics for the month of July, 1916, showed that within a 3-month period the average family expenditures for food showed a further increase of 10.63 per cent. Since then the prices of food and all other necessities have continued their upward trend. Two tables of food prices published in the *Leipziger Volkszeitung* of September 20, 1917,² and making a comparison of prices charged in a cooperative store and in the municipal markets of Leipzig in the first week of August, 1914 and 1917, show that all food prices with the exception of bread and cereals have risen 50 to 1,700 per cent. New clothing and leather shoes are now only within the reach of the very rich, and the poor and middle classes are being charged fabulous prices for second-hand clothing collected by the Government clothing depots.

In an article on the relation of wages to the cost of living in Germany during the war the *Neue Zeit*,³ the weekly journal of the German Social-Democratic Party says: "Certain goods have increased in price by 500, 800, and even 1,000 per cent, and without exaggeration the average increase of the cost of living may be estimated at between 200 and 300 per cent. * * * These data demonstrate plainly that the so-called 'high' wages of workers are a myth."

When the cost of living statistics of the imperial statistical office and such statements as the one quoted from the *Neue Zeit* are considered in conjunction with the above official data on wage increases it seems, indeed, that the economic condition of the German workers has become much worse during the war.

¹ See "Cost of living in Germany, April, 1916," in MONTHLY REVIEW for March, 1918, pp. 13-28.

² "Food situation in Central Europe, 1917," in Bul. No. 242 of the Bureau of Labor Statistics, pp. 61, 62.

³ Die Neue Zeit. Waarenpreise und Arbeiterlöhne, by A. Ellinger, vol. 36, pt. 1, No. 10. Stuttgart, Dec. 7, 1917.

HOURS OF LABOR.

In connection with the investigation of the wages of industrial workers the imperial statistical office has also inquired as to their daily net hours of labor, i. e., the daily hours of labor after deduction of rest periods and overtime. During the last two periods of investigation, namely the last two weeks of March and September, 1917, the net hours of labor in nearly all industry groups were between 9 and 10 hours. They were less than 9 hours in the chocolate and confectionery industry ($7\frac{1}{2}$ hours), the clothing and lingerie industry ($7\frac{3}{4}$ hours to 8 hours), in the industries working up fine metals ($8\frac{1}{2}$ hours), in the manufacture of shoes ($8\frac{3}{4}$ hours), and in the manufacture of trimmings ($8\frac{1}{2}$ to 9 hours). Hours of labor in excess of 10 hours were in force in only two industry groups—in the paper industry ($10\frac{1}{4}$ hours) and in the milling industry (slightly over 11 hours). Essential changes in the hours of labor have not taken place in the period from March to September, 1917. Increases in the hours of labor took place in stone quarries (from 9 hours 49 minutes to 10 hours), in hemp mills and twine factories (from 8 hours 13 minutes to 9 hours 3 minutes), in knitting and weaving mills (from 8 hours 43 minutes to 9 hours 21 minutes), in trimming factories (from 8 hours 39 minutes to 9 hours 12 minutes), and in clothing, shirt, and lingerie factories (from 7 hours 49 minutes to 8 hours 2 minutes). A decrease in hours of labor in excess of 10 minutes was only established in woolen spinning and weaving mills (11 minutes).

Compared with March, 1914, the hours of labor in force in September, 1917, as a rule, have not undergone any considerable change. The largest increases in the net hours of labor were reported by cigar factories (48 minutes), the iron and metal industry (28 minutes), the milling industry (26 minutes), the woodworking industry (19 minutes), and stone quarries (15 minutes); the largest decreases were reported by the chocolate and confectionery industries (2 hours), the clothing and lingerie industries (1 hour 17 minutes), hemp mills, twine factories, and linen mills, (40 minutes each), the shoe industry (41 minutes), trimming factories (38 minutes), woolen spinning and weaving mills (30 minutes), and the paper industry (18 minutes).

MINIMUM WAGE.

MINIMUM WAGE LAW FOR THE DISTRICT OF COLUMBIA.

On September 13, 1918, the United States Senate approved, by a vote of 36 to 12, the minimum wage measure for the District of Columbia that had already passed the House, August 26, without a roll call. Hearings on this bill are noted in the MONTHLY REVIEW for June (pp. 150-155), and a brief account of the discussion in the House appears in the August number at page 213. The favorable action of the Senate in passing the bill without amendment placed it in the hands of the President, who approved it on September 19, thus making the act immediately effective. The act, the text of which is reproduced below, resembles the Oregon statute in general and provides for the appointment of a board of three members¹ by the Commissioners of the District of Columbia, such members to serve without compensation and to have power to appoint agents and assistants and to employ a secretary at a salary not in excess of \$2,500 per annum. Hearings are to be had and determinations made at the instance of the board itself, but provision is made for a conference and for the presence of any person interested who may wish to appear and testify. The act applies only to women, i. e., females 18 years of age and over, and to minors, i. e., persons of either sex under the age of 18 years. Piece rates are to be determined where necessary as well as time rates.

This action by Congress brings the number of jurisdictions in which such laws exist up to 13, and is the first new legislation in this field since the Oregon statute was held constitutional by the action of the Supreme Court of the United States, which, on April 9, 1917, by an equally divided court, one member not voting, left undisturbed the decision of the supreme court of the State upholding its law. The act follows:

SECTION 1. Where used in this act—

The term "board" means the Minimum Wage Board created by section 2.

The term "commissioners" means the Commissioners of the District of Columbia.

The term "woman" includes only a woman of 18 years of age or over.

The term "minor" means a person of either sex under the age of 18 years.

The term "occupation" includes a business, industry, trade, or branch thereof, but shall not include domestic service.

SEC. 2. There is hereby created a board to be known as the "Minimum Wage Board," to be composed of three members to be appointed by the Commissioners of the District of Columbia. As far as practicable the members shall be so chosen that one will be representative of employees, one representative of employers, and one representing the public.

¹ The members appointed are Miss Ethel M. Smith, executive secretary, Woman's Trade-Union League, representing the employees; Jessie Adkins, attorney, representing the public; and Jos. A. Berberich, shoe merchant, representing the employees. Their terms expire, respectively, Dec. 31, 1918, 1919, and 1920.

The commissioners shall make their first appointments hereunder within 30 days after this act takes effect, and shall designate one of the three members first appointed to hold office until January 1, 1919; one to hold office until January 1, 1920; and one to hold office until January 1, 1921. On or before the 1st day of January of each year, beginning with the year 1919, the commissioners shall appoint a member to succeed the member whose term expires on such 1st day of January, and such new appointee shall hold office for the term of three years from such 1st day of January. Each member shall hold office until his successor is appointed and has qualified; and any vacancy that may occur in the membership of the board shall be filled by appointment by the commissioners for the unexpired portion of the term.

A majority of the members shall constitute a quorum to transact business, and the act or decision of such a majority shall be deemed the act or decision of the board; and no vacancy shall impair the right of the remaining members to exercise all the powers of the board.

SEC. 3. The first members appointed shall, within 20 days after their appointment, meet and organize the board by electing one of their number as chairman and by choosing a secretary, who shall not be a member of the board; and on or before the 10th day of January of each year thereafter the board shall elect a chairman and choose a secretary for the ensuing year. The chairman and the secretary shall each hold office until his successor is elected or chosen; but the board may at any time remove the secretary. The secretary shall perform such duties as may be prescribed and receive such salary, not in excess of \$2,500 per annum, as may be fixed by the board. None of the members shall receive any salary as such. The board shall have power to employ agents and such other assistants as may be necessary for the proper performance of its duties: *Provided*, That until further authorization by Congress the sum which it may expend, including the salary of the secretary, shall not exceed the sum of \$5,000.

SEC. 4. At any public hearing held by the board any person interested in the matter being investigated may appear and testify. Any member of the board shall have power to administer oaths and the board may require by subpoena the attendance and testimony of witnesses, the production of all books, registers and other evidence relative to any matters under investigation, at any such public hearing or at any session of any conference held as hereinafter provided. In case of disobedience to a subpoena the board may invoke the aid of the Supreme Court of the District of Columbia in requiring the attendance and testimony of witnesses and the production of documentary evidence. In case of contumacy or refusal to obey a subpoena the court may issue an order requiring appearance before the board, the production of documentary evidence, and the giving of evidence touching the matter in question, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

SEC. 5. The board is hereby authorized and empowered to make rules and regulations for the carrying into effect of this act, including rules and regulations for the selection of members of the conferences hereinafter provided for and the mode of procedure thereof.

SEC. 6. The board shall, on or before the 1st day of January of the year 1919, and of each year thereafter, make a report to the commissioners of its work and the proceedings under this act.

SEC. 7. There is hereby authorized to be appropriated, out of the revenues of the District of Columbia, for the fiscal year ending June 30, 1919, the sum of \$5,000, or so much thereof as may be necessary, to carry into effect the provisions of this act.

SEC. 8. The board shall have full power and authority: (1), To investigate and ascertain the wages of women and minors in the different occupations in which they are em-

ployed in the District of Columbia; (2), to examine, through any member or authorized representative, any book, pay roll or other record of any employer of women or minors that in any way appertains to or has a bearing upon the question of wages of any such women or minors; and (3), to require from such employer full and true statements of the wages paid to all women and minors in his employment.

Every employer shall keep a register of the names of the women and minors employed by him in any occupation in the District of Columbia, of the hours worked by each, and of all payments made to each, whether paid by the time or by the piece; and shall, on request, permit any member or authorized representative of the board to examine such register.

To assist the board in carrying out this act the commissioners shall at all times give it any information or statistics in their possession under the act of Congress approved February 24, 1914, entitled "An act to regulate the hours of employment and safeguard the health of females employed in the District of Columbia." (Pub., No. 60, 63d Cong.)

SEC. 9. The board is hereby authorized and empowered to ascertain and declare in the manner hereinafter provided, the following things: (a), Standards of minimum wages for women in any occupation within the District of Columbia, and what wages are inadequate to supply the necessary cost of living to any such women workers to maintain them in good health and to protect their morals; and (b), standards of minimum wages for minors in any occupation within the District of Columbia, and what wages are unreasonably low for any such minor workers.

SEC. 10. If, after investigation, the board is of opinion that any substantial number of women workers in any occupation are receiving wages inadequate to supply them with the necessary cost of living and maintain them in health and protect their morals, it may call and convene a conference for the purpose and with the powers of considering and inquiring into and reporting on the subject investigated by the board and submitted by it to such conference. The conference shall be composed of not more than three representatives of the employers in such occupation, of an equal number of representatives of the employees in such occupation, of not more than three disinterested persons representing the public, and of one or more members of the board. The board shall name and appoint all the members of the conference and designate the chairman thereof. Two-thirds of the members of the conference shall constitute a quorum, and the decision or recommendation or report of the conference on any subject submitted shall require a vote of not less than a majority of all its members.

The board shall present to the conference all the information and evidence in its possession or control relating to the subject of the inquiry by the conference, and shall cause to be brought before the conference any witnesses whose testimony the board deems material.

SEC. 11. After completing its consideration of and inquiry into the subject submitted to it by the board, the conference shall make and transmit to the board a report containing its findings and recommendations on such subject, including recommendations as to standards of minimum wages for women workers in the occupation under inquiry and as to what wages are inadequate to supply the necessary cost of living to women workers in such occupation and to maintain them in health and to protect their morals.

In its recommendations on a question of wages the conference (1) shall, where it appears that any substantial number of women workers in the occupation under inquiry are being paid by piece rates as distinguished from time rate, recommend minimum piece rates as well as minimum time rate and recommend such minimum piece rates as will, in its judgment, be adequate to supply the necessary cost of living to women workers in such occupation of average ordinary ability and to maintain them in health and protect their morals; and (2) shall, when it appears proper or

necessary, recommend suitable minimum wages for learners and apprentices in such occupation and the maximum length of time any woman worker may be kept at such wages as a learner or apprentice, which wages shall be less than the regular minimum wages recommended for the regular women workers in such occupation.

SEC. 12. Upon receipt of any report from any conference, the board shall consider and review the recommendations, and may approve or disapprove any or all of such recommendations, and may resubmit to the same conference, or a new conference, any subject covered by any recommendations so disapproved.

If the board approves any recommendations contained in any report from any conference, it shall publish a notice once a week, for four successive weeks in a newspaper of general circulation printed in the District of Columbia, that it will, on a date and at a place named in the notice, hold a public hearing at which all persons in favor of or opposed to such recommendations will be heard.

After such hearing the board may, in its discretion, make and render such an order as may be proper or necessary to adopt such recommendations and carry them into effect, requiring all employers in the occupation affected thereby to observe and comply with such order. Such order shall become effective 60 days after it is made. After such order becomes effective, and while it is effective, it shall be unlawful for any employer to violate or disregard any of its terms or provisions, or to employ any woman worker in any occupation covered by such order at lower wages than are authorized or permitted therein.

The board shall, as far as is practicable, mail a copy of such order to every employer affected thereby; and every employer affected by any such order shall keep a copy thereof posted in a conspicuous place in each room in his establishment in which women workers are employed.

SEC. 13. For any occupation in which only a minimum time-rate wage has been established, the board may issue to a woman whose earning capacity has been impaired by age or otherwise, a special license authorizing her employment at such wage less than such minimum time-rate wage as shall be fixed by the board and stated in the license.

SEC. 14. The board may at any time inquire into wages of minors employed in any occupation in the District of Columbia, and determine suitable wages for them. When the board has made such determination it may make such an order as may be proper or necessary to carry such determination into effect. Such order shall become effective sixty days after it is made; and after such order becomes effective and while it is effective it shall be unlawful for any employer in such occupation to employ a minor at less wages than are specified or required in or by such order.

SEC. 15. Any conference may make a separate inquiry into and report on any branch of any occupation, and the board may make a separate order affecting any branch of any occupation.

SEC. 16. The board shall from time to time investigate and ascertain whether or not employers in the District of Columbia are observing and complying with its orders, and shall report to the corporation counsel of the District of Columbia all violations of this act.

SEC. 17. All questions of fact arising under the foregoing provisions of this act shall, except as otherwise herein provided, be determined by the board, and there shall be no appeal from the decision of the board on any such question of fact; but there shall be a right of appeal from the board to the Supreme Court of the District of Columbia from any ruling or holding on a question of law included or embodied in any decision or order of the board; and, on the same question of law, from such court to the Court of Appeals of the District of Columbia. In all such appeals the corporation counsel shall appear for and represent the board.

SEC. 18. Whoever violates this act, whether an employer or his agent, or the director, officer, or agent of any corporation, shall be deemed guilty of a misdemeanor; and, upon conviction thereof, shall be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment not less than ten days nor more than three months, or by both such fine and imprisonment.

SEC. 19. Any employer and his agent, or the director, officer, or agent of any corporation, who discharges or in any other manner discriminates against any employee because such employee has served or is about to serve on any conference, or has testified or is about to testify, or because such employer believes that said employee may serve on any conference or may testify in any investigation or proceedings under or relative to this act, shall be deemed guilty of a misdemeanor; and, upon conviction thereof, shall be punished by a fine of not less than \$25 nor more than \$100.

SEC. 20. Any act which, if done or omitted to be done by any agent or officer or director acting for such employer, would constitute a violation of this act, shall also be held to be a violation by the employer and subject such employer to the liability provided for by this act.

SEC. 21. Prosecutions for violations of this act shall be on information filed in the police court of the District of Columbia by the corporation counsel.

SEC. 22. If any woman worker is paid by her employer less than the minimum wage to which she is entitled under or by virtue of an order of the board, she may recover in a civil action the full amount of such minimum wage, less any amount actually paid to her by the employer, together with such reasonable attorney's fees as may be allowed by the court; and any agreement for her to work for less than such minimum wage shall be no defense to such action.

SEC. 23. This act shall be known as the "District of Columbia minimum wage law." The purposes of the act are to protect the women and minors of the District from conditions detrimental to their health and morals, resulting from wages which are inadequate to maintain decent standards of living; and the act in each of its provisions and in its entirety shall be interpreted to effectuate these purposes.

MINIMUM-WAGE DECREES IN KANSAS, MASSACHUSETTS, AND MINNESOTA.

So far as possible it is the purpose of this bureau to publish in the MONTHLY LABOR REVIEW either the text or a summary of various minimum-wage decrees issued by commissions in States which have passed such legislation affecting female workers. The extent to which this purpose is achieved depends upon the cooperation of State officials administering minimum-wage laws, and as a result of their interest in the matter considerable data of this kind have been printed in these pages. Recently the bureau received a number of decrees from the minimum-wage commissions of Kansas, Massachusetts, and Minnesota, and these are noted at this time.

KANSAS.

In the July (1918) issue of the MONTHLY LABOR REVIEW (pp. 111-114) several orders of the Kansas Industrial Welfare Commission regarding employment of women and minors were noted.¹

¹ Cf. also MONTHLY REVIEW for October, 1917, p. 80, February, 1918, p. 143, and April, 1918, p. 203.

Mention was there made of a proposed order relating to and governing hours of work and minimum wages to be paid to women and minors employed as telephone operators. This order has since been issued under date of July 8, effective from and after September 5, 1918, and makes the following provisions as to hours and wages:

Eight hours shall constitute a basic day and six days shall constitute a basic week for all women and minor telephone operators.

For all time served in excess of the basic day the operator shall be paid at the rate of one and one-half times the hourly rate of a basic day.

Sunday and holiday work shall be paid for at the rate of a basic day, and if any operator is called for work on such days and reports on duty by reason of such a call, and is then excused at the convenience of the employer for all or part of such day, such operator shall be paid for one basic day.

Operators other than night operators shall perform the basic day's work in two shifts or "tours," one of which shall not exceed five hours' duration. Operators regularly employed after 10.30 o'clock p. m. shall be considered night operators.

Rest and sleep time for night operators shall not be considered work time. The total work time plus rest and sleep time of night operators shall be performed within 12 consecutive hours. All such operators shall be paid for work time equal to the pay of one basic day.

The minimum weekly wage to be paid women and minor telephone operators shall be as follows:

First. At any exchange serving a city, town, village, or community of less than 1,000 population, the weekly rate of pay shall be not less than \$6 during the first six months of service, not less than \$6.50 during the second six months of service, and not less than \$7 after one year of service.

Second. At any exchange serving a city or town of 1,000 and less than 5,000 population, the weekly rate of pay shall be not less than \$6 during the first six months of service, not less than \$7 during the second six months of service, and not less than \$7.50 after one year of service.

Third. At any exchange serving any city or town of 5,000 and less than 20,000 population, the weekly rate of pay shall be not less than \$6 during the first six months of service, not less than \$7 during the second six months of service, and not less than \$8 after one year of service.

Fourth. At any exchange serving any city of 20,000 and over population the weekly rate of pay shall be not less than \$6.50 during the first month of service, not less than \$7 during the succeeding five months of service, not less than \$8 during the second six months of service, and \$9 after one year of service.

This order shall take effect and be in force from and after the 5th day of September, 1918.

From and after the date of effect of this order, it shall be unlawful for any employer affected thereby to fail to observe and comply therewith, and any such person violating the terms of said order shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than \$25 nor more than \$100 for every such offense.

MASSACHUSETTS.

The two most recent minimum-wage decrees issued by the Massachusetts Minimum Wage Commission received by this bureau relate to the wages of females in muslin underwear, petticoat, apron, kimono, women's neckwear, and children's clothing factories, and

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to retail millinery occupations. These were noted in the MONTHLY LABOR REVIEW for September, 1918 (pp. 201 and 202). Decrees previously issued by the commission are as follows: (1) brush making, effective August 15, 1914; (2) laundries, effective September 1, 1915; (3) retail stores, effective January 1, 1916; (4) women's clothing factories, effective February 1, 1917; (5) men's clothing and raincoats, effective January 1, 1918; (6) men's and boys' furnishings, etc., effective February 1, 1918.

The retail stores decree was printed in full in the MONTHLY REVIEW for November, 1915 (p. 43), and reference to the report of the women's clothing wage board to the commission, recommending minimum wages which were afterward approved, was made in the MONTHLY Review for September, 1916 (p. 66).

The decree in the brush-making industry provides a minimum hourly wage of 15½ cents, with a rate for learners and apprentices of 65 per cent of the minimum, and also provides for the payment of the minimum to pieceworkers whose work does not permit them to earn the minimum.

The laundry decree provides a minimum wage of \$8 per week for experienced workers, \$7.50 per week for those employed 9 months, \$7 for those employed 6 months, \$6.50 for those employed 3 months, and \$6 for all others.

The minimum wage commission made an investigation of wages of women employees in restaurants and found that "the wages paid to a substantial number of such employees were inadequate to supply the necessary cost of living and to maintain them in health." Subsequently, after a public hearing, the commission concluded that the wages and other forms of compensation, such as meals and lodging, paid to women in this occupation had considerably increased and action looking to the formation of a wage board was postponed. Two supplementary inquiries were made, and in reporting on the results of these inquiries the commission makes the following statement and recommendation, under date of August 22:

Two supplementary inquiries, one in February and the other in July and August, 1918, indicate that there has been since the original investigation a general increase ranging from 15 to 50 per cent in the money wage paid in restaurants. Since the greatest increase in the cost of living is for the item of food, and since the majority of restaurant workers receive from one to three meals a day in addition to a money wage, the restaurants of Massachusetts are at the present day paying to most of their female employees a wage sufficient to cover the minimum cost of living. There are, nevertheless, still a number who are receiving less than a living wage. Where such unsatisfactory wage conditions still prevail, the employers are not only handicapping their workers, but also are thereby operating in unfair competition with the large number of proprietors who have met war conditions by bringing their wage scale up to a living wage.

In the endeavor to obviate these inequalities without the necessity of establishing a wage board for this occupation, and in the hope that the employers will cooperate with it, the commission hereby calls upon all proprietors of restaurants, lunch and tea rooms, cafeterias, and similar establishments in the Commonwealth to grant to all female employees of ordinary ability now receiving an insufficient wage such increases as are necessary to cover the cost of living of a self-supporting woman at the present time.

Pending a satisfactory response to this appeal, the commission will further postpone the formation of a wage board in this occupation.

In the manufacture of men's and boys' shirts, overalls, and other workmen's garments, men's neckwear and other furnishings, and men's, women's, and children's garters and suspenders, the experienced women workers receive, under the decree effective February 1, 1918, not less than \$9 per week, while apprentices and learners employed for more than 26 weeks of not less than 36 hours each must be paid at a rate of not less than \$8 per week, and those employed for more than 6 weeks of not less than 36 hours each must be paid at a rate of not less than \$7 per week.

The decree affecting workers in the women's clothing factories establishes a minimum wage for experienced female employees of \$8.75 per week, a minimum wage of \$7 for apprentices and learners who have reached the age of 18 years, and of \$6 per week for all other females.

The men's clothing and raincoat decree fixes a minimum wage of \$9 per week for experienced female workers and of \$7 per week payable to learners and apprentices, irrespective of age, who have had at least three months' experience.

In all of these awards, except that affecting brush makers, provision is made for the payment of less than the prescribed minimum wage, under certain conditions, to female employees of "less than ordinary ability."

MINNESOTA.

The minimum wage law of Minnesota was approved on April 26, 1913, but the minimum wage rates for women and minors determined by the commission pursuant to law, to become effective on November 24, 1914, were set aside by a decision of a lower court which held the law to be unconstitutional. An appeal was taken to the supreme court of the State, which, on December 21, 1917, by a unanimous decision, held the minimum wage law to be constitutional.¹ The validity of the six orders which had been issued by the first commission on October 23, 1914, was thereby established. Three of these orders prescribe a minimum wage of \$9 per week for women and minors employed in any mercantile office, waitress, or hairdressing occupa-

¹ See MONTHLY REVIEW for March, 1918, pp. 144, 145.

tion in any city of the first class, a minimum wage of \$8.50 per week for such workers in cities of the second, third, and fourth classes, and a minimum wage of \$8 per week for such workers in the State outside of the cities so classified. The other three orders established a minimum wage of \$8.75 per week for women and minors employed in any manufacturing, mercantile, telephone, telegraph, laundry, dyeing, dry cleaning, lunch room, restaurant, or hotel occupation in any city of the first class, and a minimum wage of \$8.25 and \$8, respectively, for such workers employed in cities of the second, third, and fourth classes and in the State outside of these cities.

When the new commission was appointed by the governor, on April 1, 1918, one of the first matters to be decided was the determination of a minimum wage and period of apprenticeship for learners and apprentices, who had not been included in the terms of the first six orders. The result of this decision found expression in orders Nos. 7 and 8. The important provisions of order No. 7, which is dated June 26, 1918, are quoted in full:

No employer, whether an individual, a partnership or a corporation, shall employ any woman apprentice or learner or any minor apprentice or learner, under 18 years of age, in any occupation, in any city of the first, second, third, and fourth class in the State of Minnesota, at a weekly wage rate of less than \$6 during the first four months following his or her entrance into employment; \$7 during the second four months following his or her entrance into employment; \$8 during the third four months following his or her entrance into employment; and thereafter the woman or minor shall be deemed a worker of ordinary ability.

No employer, whether an individual, a partnership or a corporation, shall employ any woman apprentice or learner or any minor apprentice or learner, 18 years of age or over, in any occupation, in any city of the first, second, third, and fourth class in the State of Minnesota, at a weekly wage rate of less than \$6 during the first three months following his or her entrance into employment; \$7.50 during the second three months following his or her entrance into employment; and thereafter the woman or minor shall be deemed a worker of ordinary ability.

An apprentice or learner shall mean either a woman or a minor entering employment for the first time.

Any woman or minor seeking employment as an apprentice or learner shall apply to the secretary of the minimum wage commission for a certificate of employment as an apprentice or learner.

No employer shall employ any woman apprentice or learner or any minor apprentice or learner unless said apprentice or learner has a valid certificate of employment as an apprentice or learner.

This order shall become effective 30 days from and after the date hereof.

Order No. 8 differs from No. 7 in that it applies to places outside the cities of the first, second, third, and fourth classes, and in the first paragraph prescribes no rate for a period beyond the second four months following entrance into employment, and in the second paragraph prescribes a rate of \$7, instead of \$7.50 during the second three months following entrance into employment.

REPORT OF THE MASSACHUSETTS MINIMUM WAGE COMMISSION, 1917.

Among the more important features of the report of the Massachusetts Minimum Wage Commission for the year 1917¹ are an account of the work of the wage boards organized for the clothing and furnishing trades, summaries of investigations into the wages of women employed in restaurants and hotels, in the manufacture and trimming of millinery, and as cleaners in office and other buildings, and statements of the effect which minimum wage determinations have had upon the brush industry, laundries, retail stores, and the women's clothing industry. Certain recommendations are submitted by the commission, and there is a tabulation of the minimum wage decrees established in Massachusetts down to the 1st of January, 1918.²

The report announces that during the year 1917 the commission established three wage boards to recommend minimum wage rates for women employed in the men's clothing and furnishing trades and certain branches of the women's clothing industry, and held public hearings for proprietors of hotels and restaurants, millinery establishments, and office buildings for the purpose of considering the advisability of establishing wage boards for the determination of minimum wages for women employed in these occupations.

The investigations conducted by the commission and summarized in this annual report show a large proportion of female workers employed in restaurants, millinery occupations, and as building cleaners, earning under \$8 per week, which is the lowest minimum wage established by the commission for experienced workers. Thus of 2,816 workers in restaurants, 82.6 per cent were earning less than \$8 per week; of 1,864 millinery workers, 40 per cent were earning less than \$8; and of 1,249 building cleaners, etc., 89.1 per cent were earning less than \$8. In all 5,929 workers are tabulated, of whom 4,184, or 70.6 per cent, are given as earning less than \$8.

The result of the investigations mentioned are presented briefly in the following excerpts from the report:

During the summer and early winter of 1916 agents of the commission visited 124 restaurants and 140 hotels located in 58 cities and towns throughout the State, including 4 restaurants and 37 hotels which were open only during the summer months. Wage records available for tabulation were secured for a total of 6,496 women. * * * The results of the investigation into the wages of restaurant workers showed that of those for whom the commission secured a full year's pay-roll record 54 per cent earned an average weekly wage of less than \$6 and 42 per cent earned an annual wage of less than \$100 during the period of employment in the establishments investigated. Additional compensation in the form of one, two or three meals per working day, varying usually

¹ Fifth annual report of the Minimum Wage Commission of Massachusetts for the year ending Dec. 31, 1917. Boston, 1918. 51 pp.

² See pp. 182 to 184 of this issue of the MONTHLY LABOR REVIEW, for a statement of minimum wage decrees.

according to the number of hours of employment, were furnished free of charge to at least 88.8 per cent, and the privilege of purchasing meals at reduced rates was given to almost all of the remaining number for whom information was obtained. The largest single group (44.4 per cent) of the restaurant employees were furnished three meals per working day in addition to a money wage. Of the 1,251 women who formed this group, practically all of whom were full-time workers, 49.2 per cent received an average money wage of less than \$6 a week. Three-fourths (76.3 per cent) of the number for whom information was obtained worked 42 hours or more a week, or long enough to prevent the possibility of augmenting their earnings by any other paid employment. An unusually large proportion of restaurant workers as compared with women employed in other occupations (31.3 per cent) roomed and boarded away from their families or other relatives, and nearly nine-tenths (88.1 per cent) reported that they were dependent upon their own earnings for the necessities of life.

The level of wages paid to hotel employees was found to be considerably lower than that paid to restaurant workers, 64.4 per cent of the women employed in hotels open throughout the year, and 82.2 per cent of those employed in seasonal hotels, as compared with only 15.9 per cent of the restaurant employees, being paid at the rate of less than \$5 a week. This difference in wages is, however, practically equalized by the fact that almost all of the hotel workers received three meals a day, or 21 meals a week, in addition to a money wage. Moreover, 60.8 per cent of those in all-year hotels and 96.9 of those in summer hotels were furnished with lodging in addition to their board.

A tabulation of average weekly earnings of women employed in the making and trimming of millinery indicates a wide divergence in the wages which prevail in the different trades. The report continues:

Practically all of the experienced workers in the hat factories were found to have an earning capacity well above the subsistence level. Of the total number of women employed, 63.3 per cent earned an average weekly wage of \$9 or over, and 13.3 per cent an average weekly wage of \$15 or over. On the other hand, the seasons in this trade are unusually short; only one-third (33.2 per cent) of the workers had employment for as much as six months of the year, and three-fourths (76.1 per cent) earned under \$350 for their entire year's work in the industry. Women employed in the manufacture of artificial flowers and feathers and ornaments were found to be the most poorly paid group, almost one-half (47.3 per cent) of them receiving an average weekly wage of under \$5 and an equal proportion (49.5 per cent) receiving less than \$100 as their total annual earnings. As had been anticipated because of the similarity of the occupation in the wholesale and retail shops, the level of wages in these two branches of the trade were almost identical, except that a larger proportion of both high and low paid workers were found in the retail shops. This was primarily due to the employment of a larger proportion of skilled trimmers and of apprentices in the latter group of establishments. The most serious evil in the wage situation in the retail millinery trade was found to be the low payment or nonpayment of apprentices. Forty-three per cent of these who were reported as receiving payment for their services earned an average weekly wage of less than \$3, and in a number of establishments apprentices were paid no wages at all, at best receiving only their car fares, and in some cases a small additional sum to cover the cost of lunches.

Information as to wages was obtained by the commission for a total of 201 office and bank buildings, colleges, apartment houses, and other buildings in which cleaners were employed, pay-roll

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State Normal School Library,
Cape Girardeau, Mo.

records being collected from 64 establishments employing 1,249 women.¹

The results of the investigation showed that 89.1 per cent of the women earned an average wage of less than \$8 a week, and 30.3 per cent earned an average wage of less than \$6 a week. Although over half (54.8 per cent) earned less than \$200 during their year's employment in the buildings investigated, only 11.3 per cent of the total number for whom such information was obtained and approximately the same number (11 per cent) of those whose annual earnings as office cleaners totaled less than \$200 added to this income by the proceeds of other gainful employment.

The following table, compiled from the report, gives the average weekly earnings (except in the case of hotels, where the amounts represent weekly wage rates of pay) of women employed in the industries mentioned:

NUMBER AND PER CENT OF WOMEN EARNING EACH SPECIFIED AMOUNT PER WEEK IN CERTAIN INDUSTRIES INVESTIGATED BY THE MASSACHUSETTS MINIMUM WAGE COMMISSION.

Industry.	Under \$6.		Under \$8.		Under \$9.		\$9 and over.		Total.	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
Restaurants.....	1,520	54.0	2,326	82.6	2,414	85.7	402	14.3	2,816	100
Hotels ¹	2,642	82.2	2,924	91.0	3,005	93.5	209	6.5	3,214	100
Millinery.....	403	21.6	745	40.0	942	50.5	922	49.5	1,864	100
Building cleaners, etc.....	379	30.3	1,113	89.1	1,203	96.3	46	3.7	1,249	100
Total.....	4,944	54.1	7,108	77.7	7,564	82.7	1,579	17.3	9,143	100

¹ The amounts for hotels represent the weekly wage rates and not earnings.

As already noted, the commission made inspections to ascertain the extent of enforcement of minimum wage determinations. Concerning the brush industry the report states that not only has there been a marked increase in the number of women employed in the industry since 1915, but also that the rates of payment and actual earnings are now above the minimum standards set by the commission in the decree of August 15, 1914. The number of women receiving an average of \$9 or more increased from 19.4 per cent in 1915 to 45.8 per cent in 1917. The average per capita wage, however, increased only 13.2 per cent.

The situation in retail stores is said to indicate no general increase above the established minimum (\$8.50 for experienced workers), such as was found in the brush industry, even in cities where there is known to have been a marked increase in wages in other industries. In the women's clothing industry a transcript of pay rolls of 27 factories for which comparative data were available seems

¹ Bulletin No. 16, issued by the Minimum Wage Commission of Massachusetts, entitled "Wages of women employed as office and other building cleaners in Massachusetts," is reviewed at greater length on pp. 196 to 199 of this issue.

to indicate that since the time of the commission's first investigation in 1915 the proportion of women receiving \$9 or over has increased from 42.5 per cent to 73.2 per cent in Boston and from 10.9 per cent to 57 per cent in concerns outside of Boston. It appears that a great majority of the establishments were paying their workers in accordance with the recommendations of the commission.

The commission recommends the enactment of legislation (1) requiring employers to keep records of hours worked by women and minors, (2) enabling the commission to fill vacancies on wage boards, and (3) to insure proper publicity for the orders and recommendations of the commission.

MINIMUM WAGES FOR FEMALE WORKERS IN FOODSTUFF FACTORIES IN MANITOBA.

The second award by the Manitoba Minimum Wage Commission, affecting workers in foodstuff factories, was announced in the latter part of June, 1918. The award provides that experienced female workers 18 years of age or over shall receive not less than \$10 per week, with the exception of those in pickle, macaroni, and vermicelli factories, where the minimum wage is fixed at \$9. The minimum wage for inexperienced workers is fixed at \$8 per week for the first three months, \$9 for the second three months, and \$10 thereafter, and for employees under 18 years of age the minimum is fixed at \$7 per week for the first six months, \$7.50 for the second six months, and \$8 for the third six months. The award also contains regulations as to working conditions and hours of labor, specifying 9 hours a day and 48 hours a week as the maximum such workers may be employed. No official copy of the award has been received by this bureau, but the following summary, taken from the Winnipeg Tribune for June 26, has been furnished by the American consul general at Winnipeg, through the State Department.

Cleanliness.—Every room and the floors, walls, ceilings, windows, and every other part thereof, and all fixtures therein, shall at all times be kept in a clean and sanitary condition.

Drinking water.—A sufficient quantity of safe, fresh drinking water within reasonable access of all workers, and on the same floor as any regular working room, shall be provided, with sanitary appliances for drinking. A common drinking cup shall not be used. When the water is iced, the ice shall not be in the same container as the water.

Lighting.—Artificial illumination in every workroom shall be installed, arranged, and used, so that the light furnished will at all times be sufficient for the work carried on therein, and prevent unnecessary strain to the vision or glare to the eyes of the worker. Each workroom shall be lighted from outdoors, with windows at least equal in size to one-eighth of the floor space, and opening on a street, lane or court at least ten feet wide, except where the work requires a low temperature or a subdued light.

Ventilation.—There shall be 400 cubic feet of air space for each employee in each workroom. All windows and sashes shall open freely. Air shafts shall be open to the outside air at top and bottom. Storm sashes shall either be on hinges or have a portion at least 80 square inches in size which can be readily opened. In any workroom which can not be ventilated by these means mechanical appliances shall be installed.

Toilet rooms.—There shall be provided suitable and convenient toilets, separate from those used by the opposite sex, and the number of such toilets shall not be less than one to every 25 female persons employed at one time, or fraction thereof. Such toilets must be thoroughly ventilated and open to the outside air, and must be kept in a clean and sanitary condition.

Washbasins, etc.—Washbasins shall be provided in at least the proportion of one to 25 female persons employed at one time, or fraction thereof, and shall be separate from those used by the opposite sex. Individual towels, either cloth or paper, shall be furnished to the workers. Except: In pickle factories individual towels shall be used, but need not be furnished.

Temperature.—There shall be a thermometer in each workroom, and the maximum temperature during working hours shall be between 60° and 75° F., except when the temperature outdoors exceeds 75° F., and where the work requires a temperature lower than normal. Except: In macaroni and vermicelli factories the temperature may range between 60° and 80° F.

Health and injuries.—Each factory shall keep a first-aid kit and at least one reliable member of the working force of the factory shall be trained in its use. A couch or stretcher and suitable screen shall be provided for emergencies, and, where no dressing room or similar apartment exists, a screen shall be provided.

Hours.—The hours of labor shall not be more than nine hours in any day, nor more than 48 in any week. Saturday afternoon shall be a half-holiday. No female employee shall work between 9 p. m. and 7 a. m. nor between 12 o'clock Saturday night and 12 o'clock Sunday night. Excepting the following: In pickle and groceries products factories the hours shall not exceed 50 in any week; in macaroni and vermicelli factories the hours shall not exceed 52 in any week; in abattoirs, creameries and milk product factories there need not be a Saturday afternoon half-holiday; and in the case of Sunday work becoming necessary in creameries and milk product factories the workers shall be released upon one other day in the week.

Overtime.—Overtime shall be governed by the regulations of "The Factories Act," viz., not oftener for any worker than 36 days in a year, and only on permit from the bureau of labor. There shall be extra payment at the regular rate if the work exceeds the number of hours allowed in these regulations to any industry.

Lunch hour.—One hour shall be allowed for lunch.

Delays.—An employee waiting on the premises as required by the employer shall be paid for the time thus spent.

Wages.—Wages shall be paid weekly. Where the employees are engaged by the week one week's notice shall be required on the part of the employer in dismissing an employee, and on the part of the employee on leaving employment, except in the case of flagrant insubordination on the part of the employee or flagrantly unjust treatment on the part of the employer.

The minimum wage.—No experienced female employee of 18 years of age or over shall be paid wages at a less rate than \$10 per week, excepting the following: In pickle, macaroni, and vermicelli factories the minimum wage shall be \$9.50 per week.

Adult learners.—No inexperienced female employee of 18 years of age or over shall be paid wages at a less rate than \$8 for the first three months after entering the factory and \$9 for the second three months; after which period of six months she shall be considered an experienced employee. Not more than 25 per cent of the total adult

female workers in any factory shall be learners, with the following exceptions and variations: In grocers' products and yeast factories the rate for the second three months period shall be \$8.50. In creameries and milk product factories the rate for the first three months shall be \$8.50. In pickle factories the proportion of 25 per cent to adult workers shall not apply.

Minors.—Female employees under 18 years of age shall be paid not less than a weekly wage rate of \$7 for the first six months; of \$7.50 for the second six months, and of \$8 for the third six months. After 18 months' employment she shall receive not less than the experienced adult rate of \$9.50 per week. Any female employee who has been working six months or more in a factory before reaching the age of 18 years shall be considered, on reaching the age of 18 years, to be an experienced adult worker. The number of minors in any factory shall not exceed 25 per cent of the adult female employees, excepting the following: In grocers' product factories the rate shall be \$8 for the first six months, \$8.50 for the second six months, and \$9 for the third six months. In abattoirs, creameries, pickle, and yeast factories the minors shall be treated as belonging to the class of adult learners. The proportion of 25 per cent to the adult employees shall apply in all cases.

No minor shall be employed upon any delivery wagon or truck.

Permits of exemption.—Where exceptional conditions arise, as in the case of extending or remodeling existing buildings, any deviation from these regulations shall be only by special permission of the board.

Penalty.—Any violation of these regulations is punishable by fine or imprisonment, or both.

WOMEN IN INDUSTRY AND CHILD WELFARE.

WAR-TIME EMPLOYMENT OF WOMEN IN THE METAL TRADES.

The extent to which women are being employed in new work owing to war conditions, how effective they are in such work, how much they are paid, and how they are secured and trained are points on which information is very generally desired but difficult to obtain. There is a real need for such a report as that just issued by the National Industrial Conference Board ¹ giving the results of an inquiry carried on during April and May, 1918, on the employment of women in metal-working establishments in this country. Schedules of inquiry were sent out to about 600 establishments, and replies were received from approximately 330; of these only 131 employed women in manufacturing processes. Of their total labor force of 384,709, women formed 12.9 per cent, numbering 49,831. In general these women had been employed in addition to men, rather than substituted for men.

The following table shows how the output of the women compares with that of the men in the establishments reporting:

SUMMARY COMPARISON OF OUTPUT OF WOMEN WITH THAT OF MEN ON SIMILAR WORK, BY INDUSTRIES.

Industry.	Number of establishments.	Number of establishments in which output of women, compared with men, was—						
		Greater in all operations.	Greater in some operations, equal in some.	Equal in all operations.	Greater in some operations, less in some.	Equal in some operations, less in some.	Less in all operations.	Not comparable or not stated.
Automobiles and automobile accessories.....	10	1	.....	3	1	2	1	2
Typewriters and other light machines.....	6	2	.....	2	.....	1	.....	1
Electrical machinery, apparatus, and supplies.....	18	2	.....	6	2	2	2	4
Foundry and machine-shop products.....	37	12	1	11	1	2	5	5
Munitions.....	13	4	.....	1	2	1	2	3
Railway equipment.....	7	1	1	1	.....	3	1	.....
Tools, cutlery, and hardware.....	16	5	2	4	.....	.....	.....	5
Miscellaneous metal products.....	20	3	2	2	1	.....	4	8
Total.....	127	30	6	30	7	11	15	28

¹ National Industrial Conference Board. Research Report No. 8, July, 1918. War-time Employment of women in the Metal Trades. Boston, Mass. 79 pp.

In some of these establishments women had been employed for so short a time that a valid opinion as to their efficiency could hardly be formed. In 30 of the 99 cases in which an opinion is given women are said to have a greater output in all operations in which both sexes are engaged, in 6 their output is greater in some and equal in other operations, and in 30 it is equal to that of the men. In 15 it was said that women produced less than men in all operations. This comparative output does not seem to bear any relation either to the character of the work nor to the fact that women have been employed at it but a short time.

Analysis discloses that among those operations which some employers reported women to be performing less efficiently than men, there are very few which are not being carried on with much success by women in other establishments. For instance, in one automobile factory women are found inferior to men in light bench and machine work; yet in a similar factory, and in many others doing similar work, their output on the same processes is equal to or greater than that of the men. * * * The success reported in these cases suggests that extended experience, improvements in management, or other changes might insure to those plants where the output of women falls below that of men the same good results that are now secured by others in their lines.

WAGES.

The following table shows how generally in these establishments women are receiving the same wages as men for the same work:

SUMMARY COMPARISON OF WAGE RATES OF WOMEN WITH THOSE OF MEN, BY INDUSTRIES.

Industry.	Number of establishments.	Wage rates of women.			
		Equal to men's.	Piece rate equal to men's, time rate less.	Less than men's.	Not comparable or not stated.
Automobiles and automobile accessories.....	10	1 4	1	2 3	2
Typewriters and other light machines.....	6	2	2	2	-----
Electrical machinery, apparatus, and supplies.....	18	3	2	3 8	5
Foundry and machine-shop products.....	37	1 8	8	7	4
Munitions.....	13	5	6	-----	2
Railway equipment.....	7	6	-----	-----	1
Tools, cutlery, and hardware.....	16	9	3	1	3
Miscellaneous metal products.....	20	6	7	3	4
Total.....	127	53	29	24	21

¹ In 2 cases time rates not stated.

² In 1 case piece rates not stated.

³ In some cases piece rates equal and in 1 case piece rates not stated.

⁴ In 1 establishment some piece and time rates are less and in 2 cases time rates not stated.

This shows that the principle of equal wages for equal work is more extensively adopted among employers in industries where the use of women is a comparatively new thing than where their employment is of long standing. For instance, among the munition establishments reporting, not one paid women lower piece rates than men,

and of the railway equipment shops not one paid women lower rates, whether piece or time, while in electrical manufacturing only three of 13 establishments paid equal time and piece rates to women. This is said to be "probably due to the fact that women have been employed in this industry for a much longer period, and that certain occupations came to be regarded as women's work at a time when the principle of equal wages was seldom accepted."

Several of those paying women lower wages stated that they are gradually increasing these wages as the women become more proficient, with the intention of making them finally equal to those of men. One employer expected to pay them equal wages as soon as he had made up the cost of changes incidental to their employment. One justified the lower wages on the ground that it was necessary to employ helpers to bring up the stock to the women. As to this, the report states that "many industrial managers regard the employment of a lower paid helper to deliver and take away stock from more highly paid skilled or semiskilled workers a desirable economy, even when men only are employed."

In general some changes in organization and equipment seemed necessary when women were introduced. The most frequent change mentioned was the employment of additional supervisors, owing to the unfamiliarity of the women with their new work and the consequent need for close oversight. The introduction of large numbers of inexperienced men would necessitate the same change. In general the employers reporting did not have the women workers separated from the men, and did not find any particular difficulty arising from the mingling of the sexes. It was not uncommon to have different times for the coming and departure of the men and women, this having the added advantage that it diminished the amount of crowding at the exits. No extensive reorganization of the work was necessary in order to bring it within the capacity of women:

In respect to organization of processes, factories in the United States are already better adapted to women workers than was the case in England before the war. In Great Britain the conservatism of employers and the opposition of trade-unions had combined to keep highly skilled men performing numerous complete processes instead of having the work subdivided and having highly standardized parts manufactured by automatic machines tended by unskilled or semiskilled workers.

METHODS OF TRAINING WOMEN.

Three methods were found in use—cooperation of the factory with local trade schools, special training departments in the factory itself, and instruction by foremen in departments to which women are assigned. The first is apparently not widely used. The second was adopted by 11 of the reporting establishments, employing together 14,380 women. It is significant that six of these establishments

reported the output of women as better than that of men in some or all of the processes in which they are employed, and only one found their output less in all processes. "There can be little doubt that the better output of women workers resulted to a considerable extent from such training, and that corresponding advantages could be secured from similar training of male workers as well." The third method is the most common. It has the advantage of not requiring any alterations of plant or personnel, but its success depends almost entirely upon the ability of the foremen.

SELECTION AND ATTITUDE OF WOMEN.

Stress is laid on the importance of selecting women who are adapted to the work they are to do. It is recommended that entrants be examined by a physician to discover whether or not they are physically fit for the tasks they are expected to undertake. In England of late there has been a tendency to select younger women for munition work, 22 to 23 being regarded as the most satisfactory age. One manufacturer reported in this study argues against this, saying that the older women are more steady and less given to change, and that their continuous application brings their average production up to that of the younger and more vigorous employees.

Of 111 manufacturers reporting on the attitude of women toward their work, 103 reported that it was as good or better than that of the men, while 8 considered it worse. The following table shows the situation in regard to attendance:

ATTENDANCE OF WOMEN WORKERS COMPARED WITH THAT OF MEN IN 115 ESTABLISHMENTS.

Item.	Establishments.		Women employees.	
	Number.	Per cent of total.	Number.	Per cent of total.
Women's attendance better than men's.....	44	38.3	10,481	27.2
Women's attendance equal to men's.....	40	34.8	9,974	25.9
Women's attendance worse than men's.....	31	26.9	18,045	46.9
Total.....	115	100.0	38,500	100.0

From this it appears that something over one-half of the women reported upon equalled or surpassed men in their regularity of attendance. Nevertheless, judging by the experience of other countries and other industries, the conclusion is reached "that a higher average time loss because of absence must be counted among the unavoidable disadvantages connected with the employment of women."

Offsetting this is the fact that the labor turnover is smaller among women than among men. Only 8 out of 94 employers reporting as

to this considered the women's record worse in this respect, while 60 found that it was better, "often by 20 to 30 per cent." However, this relative steadiness may diminish with the increasing opportunities for women to secure employment. Several employers comment on the fact that women are showing a tendency, hitherto unobserved, to try out "every job possible until they find something that suits," and they connect this with the abundant opportunities for women to get work at good wages.

Nevertheless, even if radical industrial changes rendered women workers as much valued and as much sought after as men are at present, it is probable that both social conditions and psychological characteristics would restrain them from shifting from place to place as freely as men.

As to the future of women in the metal trades the report is conservative. Experience has not as yet shown whether they are adapted to anything more than semiskilled, repetitive operations. Men have shown little or no objection to their presence so far, but this attitude might easily change should the women become serious competitors. Many employers are doubtful as to the social desirability of employing women permanently in such work. Generally speaking, however, the attitude seems to be that while there are some processes so heavy, so dangerous, or involving such exposure to heat or poisonous fumes that women should not be employed upon them, there are many others in which there is no objection whatever to their employment; that women constitute an available source of labor supply for the metal trades to which employers will be obliged to resort more and more with the increasing withdrawal of men from industry; that with proper precautions as to selection of women fitted for the particular task to which they are to be set, due observance of health conditions, and provision of safety appliances, etc., there is no danger of injury to the women, and if the principle of equal wages for equal work is adopted there is no danger of their undercutting the men; that their future in the trade will depend altogether upon the conditions prevailing at and after the close of the war, and that its consideration may well be postponed until it becomes a more pressing question.

OFFICE CLEANING AS AN OCCUPATION FOR WOMEN.

At a time like the present when social workers and legislators are anxiously considering the demands which may be made upon women in the new occupations to which the war is calling them, it is important to bear in mind the conditions prevailing in some occupations which have long been looked upon as distinctively theirs. Hence

there is a special timeliness in a study just issued by the Massachusetts Minimum Wage Commission of the wages, hours, and conditions of work of women engaged as cleaners in office and other buildings.¹ The study was made during April, May, and December, 1917, and January, 1918. Pay-roll data covering a year were secured for 1,249 women employed in 64 buildings, and in addition, by means of schedules and personal visits, fuller data were secured concerning 859 women employed in 79 office or other buildings, mostly in Boston.

This second group comprised 729 office and other building cleaners, 123 dormitory cleaners, and 7 matrons. The work of the cleaners differed somewhat according to the building in which they were employed.

In addition to sweeping and dusting, they empty wastebaskets and clean the cuspidors and washbasins. In some buildings these same women also wash the floors; in others this work is done by a special group of women who make the rounds of the offices once or twice a week. In most buildings at the present time a mop is used for washing the floors, but in a few buildings they are still scrubbed on the hands and knees with a scrubbing brush. Very little furniture moving is required of women; in most buildings it is done by men porters. The sweeping of heavy rugs seems to be the work which demands the most strength and is most tiring. * * *

"Marblework," or the washing of marble floors and wainscoting of corridors and stairways is almost without exception done by a separate group of employees, who are usually women. These "marble women," as they are called, are in general responsible also for the care of the stairs and toilets. This work is extremely hard, especially during the season when the streets are dirty. By many this is considered the most disagreeable part of the cleaning, especially in the case of bank buildings, where the marble is usually extensive, and the work is in many cases rendered doubly hard by the necessity of carrying water from the basement.

HOURS AND WAGES.

In general the hours were not long, the great majority of the women studied—83 per cent—being employed between 26 and 42 hours a week, and only 42 women working 54 hours or over. Offsetting this advantage is the fact that the work is done mainly at night. "Approximately nine-tenths of the women employed in office buildings are required to do their work between the hours of 9.30 at night and 9.30 in the morning." Work after 5 or 6 in the morning, however, can hardly be classed as night work, so perhaps a better presentment of the situation is found in an appendix table which shows that of 692 women engaged in cleaning buildings other than college dormitories, 566, or 82 per cent, were regularly at work at 3 a. m., some having begun at 8 or 9 on the preceding evening, but more having come on duty at from 2 to 3 a. m. Thirty others began work at 4 a. m.

¹ Massachusetts Minimum Wage Commission. Bulletin No. 16, May, 1918. Wages of women employed as office and other building cleaners in Massachusetts. Boston. 36 pp.

Wages were low, and earnings, naturally, lower still. Of the 859 workers for whom data as to weekly rates were secured, 78.1 per cent had a rate lower than \$8 a week, and only 5.6 per cent were paid at the rate of \$9 or over. When the weekly rate was divided by the number of hours worked, the hourly rate thus obtained was considerably lower than the customary rates for similar work done for private persons:

The rate paid to cleaners in office buildings varied from 12 to 47 cents an hour, the majority (63.5 per cent) receiving between 15 and 20 cents. In private employment, on the other hand, the prevailing rates of payment for similar work range from 20 to 30 cents per hour, according to the locality, 25 cents being the most usual figure in Boston. In addition, women who work out by the day in private families almost invariably receive car fare and at least one meal.

Annual earnings were considerably less than the rates of pay would indicate. Of the 1,249 women for whom pay-roll data were secured, three-fifths (61.3 per cent) earned less than \$250 at this work during the year covered, and only 28, or 2.3 per cent of the total number, earned as much as \$450. Only about one-fourth of the office cleaners and less than one-tenth of the dormitory cleaners were reported as working a full year. In the case of the latter the fluctuation of employment is explained by the closing of many of the buildings during the college vacations, but no explanation is given of the irregular employment of the office cleaners, among whom only 54.6 per cent were employed for as much as six months of the year.

AGE AND LIVING CONDITIONS.

Young workers were the exception among those studied. Only 4 of 676 women whose age was ascertained were under 25; 203, or 30 per cent, were between 30 and 40; and 66.6 per cent were 40 or over. Of 562 for whom the length of experience was learned, 52.7 per cent had been in such work for five years or longer. No connection could be discovered between length of experience and earning capacity.

Nearly all the workers studied were either married, widowed, or divorced, and many were wholly or partially responsible for the support of children or other dependents. Naturally, therefore, the great majority—96.4 per cent—lived at home. Fifty-four out of 478 for whom this fact was ascertained had taken other employment in addition to their cleaning. As their earnings at cleaning were manifestly inadequate for their own support, let alone that of their dependents, more might have been expected to do this but for the difficulties in the way. To begin with, many of them were handicapped by having to do their housekeeping and look after their children during the day, getting their sleep as best they might. Those who had fewer or no home cares found it difficult to secure any work they were able to do.

About two-thirds of those who did supplementary work had obtained cleaning, washing, or housework in private homes or in hotels.

Employment of this kind, however, is generally available only for those who can give a full day's time. In order to bring her earnings up to a living minimum by this kind of supplementary employment, a woman would have to work at least 2 full days of 8 or 9 hours each, which, added to the 5 or 6 hours of the night spent in office cleaning, would make a total working day of not less than 13 or 14 hours.

The only kind of regular short-time employment which these women seemed able to find was dish washing in restaurants during the noon hour. Demand for workers of this kind was very limited, and only about one-tenth of the women who had supplementary employment were found doing this work.

WASTAGE OF LABOR IN ENGLISH MUNITION FACTORIES EMPLOYING WOMEN.

The Medical Research Committee has recently published the results of an investigation¹ made by Maj. Greenwood, of the Welfare and Health Section, Ministry of Munitions, on the causes of the labor turnover in munition factories employing women. The investigation dealt with 18 factories or sections of factories, employing altogether some 40,000 women. Of these, 11,005 left their work during the period of observation. These were classified into three groups: (1) Those leaving on account of ill health; (2) those leaving for some sufficient reason other than ill health; (3) those giving insufficient or no reasons for leaving. Ill health was comparatively an unimportant cause, accounting for only 15 per cent of the departures. Other sufficient reasons accounted for 24.1 per cent, while 60.9 per cent of those leaving gave either some insufficient reason or none at all.

The data are admittedly unsatisfactory, since they include women discharged for lack of work as well as those leaving of their own accord and because there is little possibility of comparing working conditions, although apparently these conditions have much to do with the permanency of employees. As illustrating this, figures are given for two factories engaged in the same kind of work, in one of which a good system of welfare supervision was in operation, while in the other conditions were only fair; the rate of loss of the second was nearly three times that of the first. It is not certain that the welfare work was the explanation of this difference; the employees in the first factory were mainly country girls, and it is suggested that these may be "less prone to change than urban girls." But the coincidence of good provisions for the health and comfort of the workers

¹ Great Britain. National Health Insurance. Medical Research Committee. A report on the causes of wastage of labor in munition factories employing women. London, 1918. 76 pp.

and a relatively steady force suggests that no comparison is satisfactory which omits the factor of working conditions. This is, however, the only case in which working conditions are taken into consideration in connection with the wastage. The experience of these two factories convinces the author that "existing rates of loss in many factories are unnecessarily high, and that so long as they continue the effective mobilization of labor for national service has not even been approximately realized."

Taking the factories as a whole, the age of the worker in connection with the character of the work seemed an important factor in bringing about changes in the working force. This appears clearly in a comparison between two factories "both of which are situated in the same part of the country and conform to the highest standards of general management. L 3 is a national filling factory handling TNT; H 6 is a national projectile factory." For these two factories the three months' survival rates at different ages were as follows:

	Ages 18 to 22.	Ages 23 to 27.	Ages 28 and over.
H 6.....	87.91	78.80	78.50
L 3.....	85.75	81.50	86.07

The survival rates of the first two age groups show no significant difference, but in the third group the filling factory has a decided advantage. "In this comparison all factors are constant save the type of work, and the inference seems legitimate that labor in projectile factories is really less suitable for older women."

A similar conclusion seems deducible from two tables showing the survival rates for all the factories, classified according to whether their work was light or heavy. This comparison is not so conclusive, since working conditions and other factors may vary widely between the two groups, yet it is significant.

NINE MONTHS' SURVIVAL RATES.

Age group.	Light factories.	Heavy factories.	Difference.
18 to 22 years.....	67.55	59.64	+ 7.91
23 to 27 years.....	65.15	51.46	+13.69
28 years and over.....	66.59	52.45	+14.14

NINE MONTHS' ILLNESS SURVIVAL RATES.

Age group.	Light factories.	Heavy factories.	Difference.
18 to 22 years.....	93.04	94.40	-1.36
23 to 27 years.....	93.21	90.72	+2.49
28 years and over.....	92.92	90.60	+2.32

This shows a considerable advantage on the side of the "light factories," and it shows also that this advantage increases with the age of the workers, and that only a small part of it is due to health conditions. Indeed, in the youngest age group the advantage in health is actually with the "heavy factories." The increasing tendency of the older women to leave the "heavy factories" is explained as due to the much larger proportion of married women in the older groups. The factory work by itself would not discourage them, but taken in connection with the care of a home and family the heavy work becomes too much of a strain, and the workers tend to drop out more numerous than they do from the "light factories."

The author draws three general conclusions from his investigation:

In the first place, it has been proved that the magnitude of the problem of wastage is considerable, and that there is much discontinuity of employment, even in the best-managed factories, which must prejudicially affect output.

In the second place, it has been shown that much of this wastage is inexplicable, or at least unexplained. The greatest proportion of the losses is unaccounted for. Of a total number of 11,005 women who left, 6,697 gave no reason for so doing, or a frivolous reason. * * * There is no panacea for the disease, but there is one promising remedy. This is organized welfare work.

In the third place, it appears that the general strain of factory life in itself is not worse borne by elder than by younger women, even in factories engaged upon chemical work, which has often been associated with specific danger to the health of certain individuals. On the other hand, when the general strain of factory conditions is combined with more than a very moderate degree of actual physical work, women over 23 come less well through the ordeal. The difference is not indeed catastrophic, but it is distinct enough to make an attempt at systematic recruiting of the older women for the physically lighter labor and of the younger women for the more strenuous tasks worthy of practical attention.

INFANT WELFARE IN GERMANY DURING THE WAR.¹

The following report on this subject has been compiled chiefly from journals published in Germany devoted to infant welfare, social reform and allied topics. The most striking fact brought out is the serious decrease in the German birth rate, the number of live births having fallen from 1,839,000 in 1913 to 1,103,000 in 1916, a decrease of 40 per cent. During this same period the decrease in the number of live births in England and Wales was 10.9 per cent.

In the two months immediately following the outbreak of the War there was a marked rise in the infant mortality of Germany, attributed in the main to the economic distress which followed on mobilization. Except for this brief period, however, the mortality rate appears to have decreased steadily. Figures for the Empire as a whole are not

¹ Great Britain. Local Government Board. Intelligence Department. Report. Infant Welfare in Germany during the War. London, 1918. 37 pp.

available, but for 26 large cities having a total population in 1914 of 11,700,000, the rates are as follows: 1914, 153; 1915, 140; 1916, 130.

For London and the county boroughs of England and Wales during the same years the rates were respectively 116, 120 and 191, so that in spite of its decrease the German rate still remains much higher than that of similar districts in England. Figures for the rural districts of Germany are not available, but in these the infant mortality rates have customarily been higher than in the cities, and it is presumed that this relation still prevails.

Three lines of effort have been undertaken in order to reduce the infant mortality—maternity grants, increased work in welfare centers for mothers and children, and special provision of suitable food for expectant or nursing mothers and for young children. The separation allowances made to the wives of German soldiers were so small that it was almost impossible for a woman to meet the expenses of confinement, and there was a general demand for some provision for those expecting motherhood. To meet this, the government decided to provide for the payment of maternity grants, partly out of imperial funds and partly out of the sickness insurance funds, to the wives of men in active service.

The Federal order authorizing the imperial grants appeared on the 3d of December, 1914. It provided for the payment of the following allowances:

(a) A single payment of 25s. (\$6.08 cents) toward the expenses of confinement.

(b) An allowance of 1s. (24.3 cents) daily, including Sundays and holidays, for eight weeks, at least six of which must be after the confinement.

(c) A grant up to 10s. (\$2.43 cents) for medical attendance during pregnancy, if needed.

(d) An allowance for breast feeding at the rate of 6d. (12.2 cents) a day, including Sundays and holidays, for 12 weeks after confinement.

In June, 1917, the daily allowance was raised to 1s. 6d. (36.5 cents) for eight weeks, and in July, 1917, the maternity grants were extended to women whose husbands were in patriotic auxiliary service. The grants were to be administered through the sickness insurance societies.

THE WORK OF INFANT WELFARE CENTERS.

Up to 1900 most of the work done for infants in Germany was institutional, but by 1907 the "Imperial Association for the Care of Infants" had been formed to encourage, organize, and direct the development of infant welfare work in all parts of the Empire. This association devoted itself to forming local societies, which in turn

established infant welfare centers. In 1915 there were nearly 800 such centers, distributed among the areas of 550 local authorities. In a number of cases such centers were formed by private initiative and afterwards taken over and managed by the municipal authorities. There are 9 municipal centers in Berlin, 13 in Cologne, and 6 in Leipzig. For a brief time after the war began public attention was directed almost wholly toward military activities and the work of the centers languished or was altogether given up, but the alarm occasioned by the rapid rise in the infant mortality rate during the first months of the war led to a revival and extension of their work.

These centers have attempted some antenatal work, but have not as yet done much along this line. They have devoted themselves to encouraging breast feeding, to providing attendance during confinement, to instructing mothers in the care of their babies, to maintaining crèches where the babies may be left while the mothers are at work, to supporting health nurses specially trained in the care of babies and young children, and the like. The leaders in the work at first welcomed the establishment of the imperial maternity grants as "the greatest social event of the war," but experience showed that the effects of the grants were not always beneficial.

The welfare centers, many of which had hitherto given allowances in money or kind to mothers who breast fed their infants, had been able to impose a condition that the mother should bring the child regularly to the center and observe its rules. Under the new order the sickness insurance societies were required to distribute the imperial grants to all who had a legal claim, and it was left to the societies to decide what evidence, if any, they would require that a mother was really breast feeding her infant. When mothers became entitled to receive the allowances direct from the sickness insurance societies the effectiveness of the welfare centers was seriously undermined. Attendances fell off rapidly, and mothers and infants were thus deprived of beneficent influence.

To meet this situation social workers urged that the allowances for breast feeding should be made through the welfare centers and should be conditional on regular attendance, but the Government refused to impose such a condition. An effort was then made to establish cooperation between the welfare centers and the sickness insurance societies.

In the majority of cases where infant welfare work was well organized those who directed it approached the societies with the proposal that the breast-feeding allowances should be paid by the societies only to those mothers who produced a certificate from the welfare center that they were fulfilling the condition. It would seem that in course of time the sickness societies in most towns where infant welfare associations existed came to some agreement of this kind.

Where cooperation was established there is much testimony to show that the imperial grants have greatly increased the practice of breast feeding. In Mannheim of 2,463 mothers claiming the imperial

maternity grants 92 per cent breast fed their babies, at least for a time. "In Cologne 80 per cent of the infants brought to the centers during 1915 were breast fed." There is complaint, however, that as soon as the imperial allowance ceases mothers discontinue breast feeding, regardless of the well-being of their infants.

The general opinion is that some way should be found for continuing the allowance beyond the first three months, this period not being long enough to protect the infant from later suffering. A number of centers report that infants who were breast fed up to three months and then suddenly weaned were peculiarly susceptible to digestive troubles, especially where the change took place during the hot weather. The tendency everywhere is for mothers to cease to attend the centers when the allowance can no longer be claimed. The infants are thus deprived of care and supervision at the very time when they are exposed to fresh danger from artificial feeding. It seems to have happened in many cases that so long as the imperial allowance was forthcoming the mothers remained at home, but as soon as these payments came to an end they sought some paid employment outside the home and the infants were weaned and left to the care of other persons.

Institutional care of children has, of course, been extended, owing to war conditions. Measures have been taken for the protection of illegitimate babies, including separation allowance if the father is a soldier, and maternity grants, besides special provisions for guardianship. As a result of these measures the death rate among such infants, although still much higher than that among legitimate babies, has been much reduced.

SPECIAL FOOD SUPPLIES FOR MOTHERS AND BABIES.

Milk became scarce and dear early in the war days, and this condition seriously affected the babies and nursing mothers. For a time the matter was left to private benevolence or to the efforts of local authorities, but by the autumn of 1915 the Government took the matter in hand. At first local authorities were given power to secure, by preferential measures, a proper supply of milk to nursing mothers, to infants and young children, and to the sick, and the quantities to be allowed members of each of these classes were prescribed. Later it was provided that these classes alone might receive whole milk, all other persons receiving skim milk only. Later, the difficulty of securing milk became so great that municipalities in some cases themselves kept cows, and municipal milk depots were established. A considerable amount of milk is distributed through the infant-welfare centers, the milk being given out on medical authority. A charge is made to those who can pay, but the municipality generally pays for milk given to those who cannot meet the charge.

In many places expectant mothers were provided with preference cards, enabling them to secure attention at food shops out of turn.

This was done to save them from standing for hours in the queues. The police have instructions to see that the holders, on production of such cards, are given the special treatment to which they are entitled. In a number of places measures have been taken to provide extra rations for expectant and nursing mothers, but these measures differed too widely from place to place to be covered by any general statement. In the spring of 1917 the Imperial Government drew up and issued a set of rules as to the allowances which should be made to expectant mothers, infants, and children, and requested the State governments to see that these were carried out by the local authorities.

In summing up the conclusions of this study, attention should be drawn to the fact that the maternity grants have been effective in reducing the infant death rate when, and only when, they have been administered as part of an organized scheme of infant welfare work. Where the money has simply been handed out without any attempt to see that the mothers and infants are properly cared for, the grants appear to have had little or no effect on the infant death rate. It is felt that one of the most serious questions concerning infant welfare in Germany now is that of the employment of mothers.

While there has been development of infant welfare work on the modern lines of caring for the child in the home, the older method of caring for children in institutions has at the same time been extended. The demand for women's labor is so great that an ever-increasing number of women are being drawn into industrial work. While the mother toils by day or night her child must be cared for by others. Those who are concerned for the welfare of infants and young children believe that they will be better cared for by trained and supervised workers in crèches or infants' homes than in the homes of foster mothers, especially in view of the difficult food conditions. Endeavors are therefore being made to provide suitable institutions wherever they are needed and to link them up with the general movement for infant welfare. But whether the measures taken will be adequate to counteract the effect of the industrial employment of women under the present conditions of night shifts, long hours, and unusual strain is a question which causes grave anxiety.

The above review deals only with conditions in 1917, but a report of a meeting at Frankfort of the German infant welfare committee in June, 1918, shows an increasing appreciation of the seriousness of the situation. Dr. Lippe, burgomaster of Frankfort, proposed that the State should intervene not merely to stop the fall in the birth rate, but also to improve the quality of the succeeding generation. For this purpose the State must not withhold assistance until the family has reached a certain size, but must begin with the first child and extend its work according to the number of children.

The only new thing about Lippe's proposal is that it won the approbation of such a meeting. Not only did the time-honored objection about State aid making mothers disdain employment meet with no support, but speakers even expressed their opinions that mere child insurance was not sufficient, and that economic assistance

should be given for their upbringing in the form of considerable rebates on taxes, and, above a certain number of children, in the form of actual grants from the State. Above a certain number of children also child insurance does not suffice. The State must be more liberal.

It was pointed out that of 200,000,000 marks (\$47,600,000) paid for maternity benefits, 50,000,000 (\$11,900,000) were lost, because 25 per cent of the children died under six years of age. Social hygiene during infancy needed far more attention. The deficiencies of upbringing were not the fault of the individual, but originated in the prevailing economic conditions. The trouble is not due to the war, which only aggravated a situation already existing. Economic conditions must be faced and improved if the quality of the race is to be preserved. Special stress was laid on the advantage of securing the sympathy and cooperation of the trade-unions in measures concerning infant welfare, since these associations had the confidence of the people among whom these measures were most needed.

INDUSTRIAL ACCIDENTS.

ACCIDENT FREQUENCY AND SEVERITY RATES IN WISCONSIN, 1915-1917.

Wisconsin is one of the first States to put into effect the system of weighting industrial accidents formulated by the committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions.¹ The State industrial commission has recently issued a table containing an analysis of all industrial accidents of over one week's disability, which occurred during the three years 1915, 1916, and 1917. This table gives both the number of accidents and the total number of days lost, classified both by cause and nature of disability. Only compensable injuries, however, i. e., those of over one week's disability and occurring in employments under the compensation act, are included in the table. The permanent injuries listed include those resulting in the impairment of function or loss of use, as well as amputation cases.

In computing the time lost for fatal or permanent disability accidents the schedule of severity ratings formulated by the above-mentioned committee was used. Death and permanent total disability were each rated at 6,000 days. The severity of the partial disabilities was computed in percentages of permanent total disability and ranged from 4,500 days for the loss of an arm to 300 days for the loss of a finger.

The following table shows the total number of injuries and the average number of days lost per accident, classified by cause of accident and nature of injury. Only the total number of the permanent disabilities are here given. For a more refined classification of these permanent injuries reference must be had to the original table issued by the Wisconsin Industrial Commission.

¹ The report of this committee, including the accident severity schedule, was published in the MONTHLY REVIEW for October, 1917, pp. 123-143.

NUMBER OF ACCIDENTS AND AVERAGE NUMBER OF DAYS LOST PER ACCIDENT IN WISCONSIN, 1915-1917, CLASSIFIED BY CAUSES AND NATURE OF DISABILITY.

Cause.	Number of accidents.				Average number of days lost per accident.		
	Death.	Perma- nent dis- ability.	Tempo- rary dis- ability (over 1 week).	Total.	Perma- nent dis- ability.	Tempo- rary dis- ability (over 1 week).	Total (includ- ing deaths).
All causes.....	517	2,390	38,073	40,980	794.0	24.8	145.2
All machinery.....	53	1,311	6,425	7,789	717.4	22.3	181.5
Engines and motors.....	5	28	334	367	864.6	27.0	172.3
Transmission apparatus.....	13	22	166	201	208.6	36.8	646.8
General machinery.....	2	42	182	226	728.5	34.9	216.2
Woodworking machinery.....	9	430	1,926	2,365	708.9	21.7	169.1
Metal-working machinery.....	9	496	2,155	2,660	649.1	19.9	159.7
Paper-making machinery.....	4	54	491	549	820.8	21.6	143.8
Paper-products machinery.....		31	115	146	658.1	22.8	157.7
Printing machinery.....		17	81	98	591.2	25.5	123.6
Leather-working machinery.....	2	70	269	341	532.8	20.9	161.0
Baking and confectionery ma- chinery.....		18	54	72	691.7	27.4	193.5
Brewing and bottling machin- ery.....		5	53	58	300.0	23.7	151.0
Canning machinery.....		5	23	28	720.0	22.0	146.6
Dairy-products machinery.....		4	7	11	750.0	33.9	294.3
Meat-products machinery.....	1	16	27	44	412.5	22.5	300.2
Milling machinery.....	1	6	11	18	147.5	26.4	841.1
Textile machinery.....		9	185	194	616.7	19.5	473.3
Laundry machinery.....		4	22	26	900.0	24.0	158.7
Rubber and composition ma- chinery.....	1	12	37	50	1,500.0	25.9	499.1
Building, excavating, and engi- neering machinery.....	3	12	121	136	931.3	25.3	237.0
Clay, glass, and stone working machinery.....	1	15	100	116	1,055.0	23.0	208.0
Farm machinery.....	2	12	62	76	750.0	24.9	296.6
Chemical machinery.....		3	4	7	800.0	14.3	351.0
Elevators.....	17	25	209	251	1,151.6	41.4	555.6
Cranes, derricks, and hoists.....	32	121	1,186	1,339	821.2	30.1	243.2
Cars and engines.....	37	39	887	963	1,227.8	31.7	309.4
Wagons, carriages, and other horse vehicles.....	49	37	1,246	1,332	1,141.6	32.8	283.1
Automobiles and motorcycles.....	8	9	260	277	719.3	29.8	224.7
Dragging and skidding.....	3	7	264	274	501.4	41.1	118.1
Rafting and river driving.....	2		3	5		38.0	2,422.8
Falling objects.....	19	66	2,922	3,007	862.2	25.3	80.6
Falling objects in mines and quarries.....	17	10	312	339	948.8	33.7	359.9
Falling trees.....	38	19	425	482	1,285.5	43.7	562.3
Falling objects in construction.....	16	15	343	374	1,483.0	37.9	351.0
Flying particles.....	1	115	635	751	1,352.4	18.1	230.4
Falls of persons.....	36	52	4,072	4,160	1,211.3	29.1	95.6
Falls in construction work.....	46	48	1,206	1,300	1,084.8	44.5	293.6
Stepping on sharp objects.....	2	6	513	521	810.0	16.8	48.9
Striking against objects.....	11	32	1,418	1,461	999.2	20.0	86.5
Hand tools.....	7	97	2,989	3,093	427.8	19.7	46.1
Hand trucks.....	4	27	925	956	493.0	20.4	58.8
Handling of objects.....	24	256	8,412	8,692	518.1	21.0	52.1
Electricity.....	30	7	128	165	1,385.7	22.9	1,166.8
Explosives.....	16	36	286	338	1,353.3	26.3	450.5
Hot and corrosive substances.....	11	29	2,104	2,144	1,157.0	20.2	66.3
Miscellaneous causes.....	32	20	806	858	977.8	28.0	272.8
Causes not otherwise classified.....	6	6	97	109	1,575.0	17.3	432.3

The total number of accidents for the three-year period was 40,980, of which 517 resulted in death, 2,390 were permanent injuries, and 38,073 temporary disabilities. The relative severity of the injuries, by causes, is indicated in the right-hand half of the table, which shows the average number of days lost per accident, by causes. The average severity of permanent disabilities was 794 days, of temporary

disabilities 24.8 days, and of fatal accidents, of course, 6,000 days; the average of all accidents being 145.2 days. It will be noted that among those causes, such as transmission machinery, elevators, and electricity, in which there are relatively many fatal or permanent injuries, the severity rate is high.

The real purpose of this article, however, is to show accident rates—both frequency and severity. Such rates indicate the number of accidents or the number of days lost per employee or per 1,000 employees and consequently their accuracy or value, especially for comparative purposes, depends upon knowing the actual number of exposed employees. In order to make the computation of rates possible the State industrial commission has computed not only the time lost but the number of employees in manufacturing industries and in the State coming within the scope of the compensation. Great credit is therefore due the commission for compiling data from which accident rates can be computed. As already noted, accurate comparisons of accident rates between different industries or States or by causes is dependent upon the number of employees employed in the industry or exposed to the particular hazard. This information the commission has not yet been able to obtain. For the determination of rates, therefore, it has been necessary to use as the base the total number of employees under the compensation act. A more accurate rate for accidents from machinery in manufacturing industries was possible, because these accidents could be segregated and the number of employees engaged in manufacturing was readily obtainable. Two separate tables of accident rates have therefore been computed. One shows the rate for all the accidents, by causes, based upon the total number of employees under the compensation act; the other shows the rate for manufacturing machinery accidents, by causes, based upon the number of employees engaged in manufacturing industries under the compensation act. An analysis of the method adopted by the commission for computing the number of employees is given on pages 211 to 214.

The bureau recognizes that the methods of rate computation herein followed are not conclusive, but despite their limitations the tables have a certain value for comparative purposes and may point the way toward better accident statistics.

The following table shows the accident frequency and severity rates, by causes and nature of disability, for all employees under the workmen's compensation act. The number of employees for the three-year period was estimated by the commission at 1,007,826.

ACCIDENT FREQUENCY AND SEVERITY RATES FOR ALL EMPLOYEES UNDER WISCONSIN COMPENSATION ACT, CLASSIFIED BY CAUSE AND NATURE OF DISABILITY.

Cause.	Number of accidents per 1,000 employees under compensation act.				Number of days lost per employee under compensation act.			
	Death.	Per- manent injury.	Temp- orary disa- bility.	Total.	Death.	Per- manent injury.	Temp- orary disa- bility.	Total.
All causes.....	0.513	2.371	37.778	40.662	3.086	1.883	0.937	5.906
All machinery.....	.053	1.301	6.375	7.729	.327	.933	.142	1.403
Machinery in manufacturing in- dustries.....	.048	1.277	6.194	7.518	.298	.913	.138	1.350
Building, excavating, and en- gineering machinery.....	.003	.012	.120	.135	.018	.011	.003	.032
Farm machinery.....	.002	.012	.062	.075	.012	.009	.002	.022
Elevators.....	.017	.025	.207	.249	.101	.029	.009	.138
Cranes, derricks, and hoists.....	.032	.120	1.177	1.329	.191	.099	.035	.323
Cars and engines.....	.037	.039	.880	.956	.220	.048	.028	.296
Wagons, carriages, and other horse vehicles.....	.049	.037	1.236	1.322	.292	.042	.041	.374
Automobiles and motorcycles.....	.008	.009	.258	.275	.048	.006	.008	.062
Dragging and skidding.....	.003	.007	.262	.273	.018	.003	.011	.032
Rafting and river driving.....	.002	.....	.003	.005	.012	.....	.0001	.012
Falling objects.....	.019	.065	2.902	2.985	.113	.056	.074	.243
Falling objects in mines and quarries.....	.017	.010	.310	.336	.101	.009	.010	.121
Falling trees.....	.038	.019	.422	.478	.226	.024	.018	.269
Falling objects in construction.....	.016	.015	.340	.371	.095	.022	.013	.130
Flying particles.....	.001	.114	.030	.745	.006	.154	.011	.172
Falls of persons.....	.036	.052	4.040	4.128	.214	.062	.118	.395
Falls in construction work.....	.046	.048	1.197	1.290	.274	.052	.053	.379
Stepping on sharp objects.....	.002	.006	.509	.517	.012	.005	.009	.025
Striking against objects.....	.011	.032	1.407	1.450	.065	.032	.028	.125
Hand tools.....	.007	.096	2.966	3.069	.042	.041	.059	.141
Hand trucks.....	.004	.027	.918	.949	.024	.013	.019	.056
Handling of objects.....	.024	.253	8.343	8.620	.141	.132	.175	.448
Electricity.....	.030	.007	.127	.164	.179	.010	.003	.191
Explosives.....	.016	.036	.284	.335	.095	.048	.007	.151
Hot and corrosive substances.....	.011	.029	2.088	2.127	.065	.033	.042	.141
Miscellaneous causes.....	.032	.020	.800	.851	.191	.019	.022	.232
Causes not otherwise classified.....	.006	.006	.096	.108	.036	.009	.002	.047

It will be noted that the number of accidents per 1,000 employees per year from all causes was 40.7, the rate for death being 0.5, for permanent disability, 2.4, and for temporary disability, 37.8. The number of days lost per employee per year from all causes was 5.9, the rate for death being 3.1, for permanent disability, 1.9, and for temporary disability, 0.9.

The following table shows the accident frequency and severity rates, by causes and nature of disability, for employees in manufacturing industries. This table shows a more refined classification than the previous one and the rates are more accurate since the base approximates more closely the actual exposure. The number of employees engaged in manufacturing industries as estimated by the commission was 745,915.

ACCIDENT FREQUENCY AND SEVERITY RATES IN MANUFACTURING INDUSTRIES
IN WISCONSIN, CLASSIFIED BY CAUSE AND NATURE OF DISABILITY.

Cause.	Number of accidents per 1,000 employees in manufacturing industries.				Number of days lost per employee in manufacturing industries.			
	Death.	Perma- nent injury.	Tem- porary disa- bility.	Total.	Death.	Perma- nent injury.	Tem- porary disa- bility.	Total.
All machinery in manufacturing industries.....	0.064	1.725	8.370	10.158	0.402	1.234	0.186	1.822
Engines and motors.....	.007	.038	.448	.492	.040	.032	.012	.085
Transmission apparatus.....	.017	.029	.223	.269	.105	.062	.008	.174
General machinery.....	.003	.056	.244	.303	.016	.041	.009	.066
Woodworking machinery.....	.012	.576	2.582	3.171	.072	.408	.056	.536
Metal-working machinery.....	.012	.665	2.889	3.566	.080	.432	.058	.570
Paper-making machinery.....	.005	.072	.658	.736	.032	.059	.014	.106
Paper-products machinery.....		.042	.154	.196		.027	.004	.031
Printing machinery.....		.023	.109	.131		.013	.003	.016
Leather-working machinery.....	.003	.094	.361	.457	.016	.050	.007	.074
Baking and confectionery ma- chinery.....		.024	.072	.097		.017	.002	.019
Brewing and bottling machinery.....		.007	.071	.078	.008	.002	.002	.011
Canning machinery.....		.007	.031	.038		.005	.001	.006
Dairy-products machinery.....		.005	.009	.015		.004	.0003	.004
Meat-products machinery.....	.001	.021	.036	.059	.008	.009	.001	.013
Milling machinery.....	.001	.008	.015	.024	.008	.012	.0004	.020
Textile machinery.....		.012	.248	.260		.007	.005	.012
Laundry machinery.....		.005	.029	.035		.005	.001	.006
Rubber and composition ma- chinery.....	.001	.016	.050	.067	.008	.024	.001	.033
Clay, glass, and stone working machinery.....	.001	.020	.134	.156	.008	.021	.003	.032
Chemical machinery.....		.004	.005	.009		.003	.0001	.003

METHOD OF COMPUTING NUMBER OF EMPLOYEES.

The method of computing the number of employees in manufacturing industries and under the compensation act is described by the commission as follows:

RATIO BETWEEN EMPLOYEES IN MANUFACTURING AND ALL
EMPLOYEES SUBJECT TO THE COMPENSATION ACT.

This has been arrived at through a comparison of the pay roll of employers in non-manufacturing industries who operate under the compensation act, with the total pay roll of all employers under the compensation act. The pay-roll figures referred to are those given in the three annual reports of the commission on workmen's compensation insurance. These figures are estimated to be only 90 per cent complete, but the ratio between manufacturing and nonmanufacturing pay rolls is not affected by this fact. The principal element of error is the difficulty of separating manufacturing and non-manufacturing operations, especially in such groups as clerical office employees.

The third annual report on workmen's compensation insurance gives tables showing by industry classification the total pay rolls of employers subject to the compensation act during the three years 1914 to 1916, inclusive. These tables are based upon the reports of insurance companies and self-insurers. Analysis of the figures given shows that between 25 per cent and 30 per cent of the total of these pay rolls were in non-manufacturing industries.

It is probable that the average annual earnings are somewhat higher in manufacturing establishments than in nonmanufacturing industries. This warrants the assump-

tion that the percentage of the employees in nonmanufacturing industries is slightly higher than the percentage of the pay rolls applicable to these industries.

It is clear also that the expansion of manufacturing industries since 1914 has been much greater than that of nonmanufacturing industries. This was true especially of 1917, during which year it is likely that the number of employees in nonmanufacturing industries actually decreased, while manufacturing expanded considerably. This was in part, at least, offset by the fact that on September 1, 1917, two of the largest railway systems in the State became subject to the compensation act.

In view of the foregoing, it is estimated that the number of employees in nonmanufacturing industries subject to the compensation act represented $37\frac{1}{2}$ per cent of the number engaged in manufacturing in 1914 and in 1915, 35 per cent in 1916, and 34 per cent in 1917.

NUMBER OF EMPLOYEES ENGAGED IN MANUFACTURING, 1915-1917.

The number of employees engaged in manufacturing during each of the three years 1915, 1916, and 1917 are computed from the United States Census of Manufactures of 1914, which represents the average number of employees engaged in manufacturing during the year. They thus may be taken to represent the number of full-time employees.

In the summer and fall of 1914, and in the winter, spring, and summer of 1915, there was a pronounced depression. Conditions gradually improved from month to month in 1915, and at the end of the year were better than at any time in 1914. Hornell Hart, in his recent study on "Fluctuations in unemployment in cities of the United States, 1902 to 1917," gives figures which indicate that the average number of non-agricultural workers in the United States was 1 per cent greater in 1915 than in 1914. From all data which is available, it is estimated that the number of persons in manufacturing industries as well as the number of persons in nonmanufacturing industries to which the compensation act applies increased in 1915 by 1 per cent over 1914.

The index of employment in factories of New York State, June, 1914, to December, 1916, published in the bulletin of the New York Industrial Commission, "Course of employment in New York State from 1906 to 1916," shows an increase of 18 per cent in 1916 over 1915. It is believed that this figure should be slightly increased for Wisconsin. The census of manufactures shows that the metal manufacturing group embraces a somewhat larger percentage of the total employees in manufacturing in Wisconsin than in New York. This group unquestionably had a much greater increase in number of employees than manufacturing as a whole.

A study of the quarterly reports made by some of the larger firms carrying their own risk under the workmen's compensation act of Wisconsin, points toward an increase of about 20 per cent in the number of their employees in 1916 over 1915.

The statistics published month by month by the United States Bureau of Labor Statistics upon the number of employees of identical establishments throughout the country do not show an increase of as much as 20 per cent in any group except in the iron and steel industry, in which the increase of 1916 over 1915 was above 25 per cent.

A conservative estimate of the increase in the number of employees in manufacturing establishments in Wisconsin in 1916 over 1915 is 19 per cent, or 1 per cent more than the increase in New York State.

In New York State the number of wage earners in manufacturing industries month by month in 1917 averaged 5 per cent more than in 1916. The same increase has been assumed for Wisconsin.

NUMBER OF WAGE EARNERS IN MANUFACTURING WHO ARE SUBJECT TO THE
COMPENSATION ACT.

The compensation act of Wisconsin is an elective law. Election since 1913 has been presumed for all employers who in the usual course of their business employed four (three since Sept. 1, 1917) or more persons in common employment, unless they filed with the industrial commission a notice in writing of their wish to remain outside of the law. While there are several hundred employers who have filed elections to remain outside of the compensation act, or have withdrawn their elections, there is at present only one large manufacturing plant, employing about 800 men, outside of the compensation law.

The Abstract of the Census of Manufactures of 1914 shows that in that year the total number of wage earners in all manufacturing establishments in Wisconsin which employed five or less wage earners was 9,732. Some of these wage earners were under compensation, namely, those in establishments employing four or five workmen. On the other hand, as mentioned above, there were some wage earners in larger manufacturing establishments which have elected to reject the compensation act who do not enjoy the benefits of the law. The total number of wage earners engaged in manufacturing who are outside of the compensation act, however, is certainly not more than 9,000. This number it is believed has varied little from year to year, decreasing if anything. In computing the number of wage earners in manufacturing who are under the compensation act, 9,000 has been deducted each year from the estimated total number of wage earners in Wisconsin, arrived at as explained above.

SALARIED EMPLOYEES UNDER COMPENSATION.

Salaried employees under the Wisconsin law are on the same footing as wage earners. The same percentage of salaried employees is assumed to be under compensation as of wage earners.

In 1914 the number of salaried employees in manufacturing establishments in Wisconsin was 28,543. This figure is not given in the Abstract of the Census of Manufactures of 1914, but it is there stated that in Wisconsin the salaried employees constituted 12.4 per cent of the total number of persons engaged in manufacturing, proprietors and firm members, 3.2 per cent, and the wage earners, 84.4 per cent. Since the average number of wage earners was 194,310, the total number of persons engaged in manufacturing hence was 230,225.

Census returns indicate that the number of salaried employees increased much more rapidly from 1909 to 1914 than the number of wage earners. In this estimate, however, the same rate of increase of salaried employees is assumed as of wage earners.

Assuming that approximately the same percentage of salaried employees engaged in manufacturing are outside of the compensation act as of wage earners in manufacturing, the deduction which must be made from the total number of salaried employees to get at the number under the compensation act is about 1,250.

It has been assumed that the number of such salaried employees engaged in manufacturing who are outside of the compensation act has not varied appreciably from year to year since 1914.

PROPRIETORS AND FIRM MEMBERS UNDER COMPENSATION.

The workmen's compensation act of Wisconsin does not classify individual entrepreneurs or copartners as employees. Officers of corporations, however, are "employees" within the meaning of the Wisconsin compensation law, if exposed to the operative hazard.

In 1914 there were 8,556 proprietors and firm members engaged in manufacturing in Wisconsin. A small percentage of such proprietors and firm members were "employees" within the meaning of the compensation act. This number is estimated at 500.

The following table summarizes the number of employees computed according to the foregoing methods.

AN ESTIMATE OF THE AVERAGE NUMBER OF FULL-TIME EMPLOYEES SUBJECT TO THE WORKMEN'S COMPENSATION ACT OF WISCONSIN, 1914-1917.

Year.	Total under act.	Manufacturing.						Employees in non-manufacturing industries under act.
		Total under act.	Wage earners.		Salaried employees.		Proprietors and firm members under act.	
			Total.	Under act.	Total.	Under act.		
1914.....	293,017	213,103	194,310	185,310	28,543	27,293	500	79,914
1915.....	296,080	215,331	196,253	187,253	28,828	27,578	500	80,749
1916.....	348,429	258,066	233,541	224,541	34,305	33,055	500	90,333
1917.....	363,317	272,488	245,218	237,218	36,020	34,770	500	90,829
Total 1915-1917..	1,007,826	745,915	675,012	649,012	99,153	95,403	1,500	261,911

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

MEDICAL AND SURGICAL PROVISIONS IN COMPENSATION LAW AND ADMINISTRATION.

BY LINDLEY D. CLARK.

REQUIREMENTS AS TO MEDICAL AND SURGICAL AID.

The growing recognition of the importance of the place of the physician under the workmen's compensation laws is evidenced by the fact that of the six States enacting laws in this field in 1917-18 all provided for medical and surgical aid at the expense of the employer, while of the five older laws which had omitted such provision two were amended in 1917 so as to grant assistance of this nature. Of the 38 States having compensation laws, therefore, medical aid is now provided in all but three.¹ In the law applying to employees of the United States, also, and in the laws of Hawaii and Porto Rico, it is directed that medical aid be furnished.² In Alaska, as in two of the States not providing medical aid generally,³ the cost of medical attendance of an injured workman dying and leaving no dependents is to be defrayed by the employer; so that it is only in a single jurisdiction of the 42 in which compensation laws exist within our national boundaries that the work of the physician is without statutory recognition, and even in this State (Wyoming) there is a negative sort of notice taken, inasmuch as the employee is to be denied compensation if he refuses to submit to suitable medical treatment, even though the employer is not required to supply the same.

Though the provision for medical aid is thus general, the true economy of a liberal expenditure of effort in the matter of the restoration of earning capacity is admitted as yet in only a few instances. Limitations of amounts to be expended and of periods of treatment bespeak an effort to reduce immediate outlay rather than to accomplish an ultimate return to work with the least possible loss of earning power. The present widespread interest in the subject of the rehabilitation of the wounded soldier is bound to react bene-

¹ Arizona, New Hampshire, and Wyoming; the law of the Territory of Alaska is likewise deficient.

² The Philippine Islands are not included in this enumeration, although they have a law, of the nature of a compensation law, allowing a limited salary or wage extension to injured employees of the insular government or their dependents. Medical benefits are also allowed.

³ Arizona and New Hampshire.

ficially in this field, and the work of the physician will necessarily assume new importance on this account.

In three States the provision for medical aid is limited only by the necessities of the case or the discretion of the administrative board. Thus in California the treatment is to be such "as may reasonably be required to cure and relieve from the effects of the injury," with commission supervision as regards competency of treatment, etc.; while controversies in regard to any phase of the subject are to be determined by the commission, on the request of either party. In Connecticut such medical and surgical aid is to be furnished as the "competent physician or surgeon" which the employer must supply "shall deem reasonable or necessary." Charges are to be limited to those prevailing locally for persons of like standards of living, and may be included in the award made by the commissioner. The law of Idaho is of practically the same effect as that of Connecticut. In Porto Rico also the law as amended in 1917 allowed such medical attendance and medicines as the administrative commission might prescribe; in the new law of 1918 it is provided that no allowance shall be made for medicine after compensation has been granted. In the three States named the employer or his insurer is responsible for the costs, while in Porto Rico the payment is to be made from the insurance fund, to which all employers under the act are required to contribute.

The law of Washington as amended in 1917 adopts a standard of its own, medical and surgical aid being payable during the term of temporary disability, and until compensation is awarded in permanent cases. Payments are to be made from a special fund to which employers and employees contribute equal amounts, which is to be administered by local boards representing both parties. In the other jurisdictions in which medical aid is required there is either a time limit, ranging from two weeks in nine States to 90 days in four (though in five States a longer time is allowed in prescribed circumstances), or there is a limitation on the amount that is required to be expended, ranging from \$150 to \$250, or, again, both restrictions may be employed, two of the States which have a two weeks' limitation also restricting the employer's liability for expense to \$25.¹

ADEQUACY OF PROVISIONS.

Of such limits as those last noted it is not too much to say that while they provide a large measure of relief, especially in minor injury cases and those in which first aid is the practical extent of the necessities involved, they entirely disregard the importance of adequate care and treatment for the more serious injuries. No very

¹ Delaware and Pennsylvania.

considerable amount of American statistics has yet been collated on the subject of the duration of disability from accidents, but the results of foreign experience, checked and compared with some American data, are summarized by Dr. Rubinow,¹ from which it appears that injuries causing disability for one day or more would show periods of duration as follows: 65 per cent, less than 2 weeks; 20 per cent, 2 to 4 weeks; 11 per cent, 4 to 8 weeks; 3 per cent, 8 to 13 weeks; 1 per cent, over 13 weeks. The experience of the Massachusetts Accident Board for the year 1916, omitting from consideration accidents causing no disability beyond the day of occurrence, gives for periods of less than 2 weeks, 59 per cent; 2 to 4 weeks, 17 per cent; 4 to 8 weeks, 14 per cent; 8 to 13 weeks, 5 per cent; and over 13 weeks, 5 per cent. The United States Employees Compensation Commission in its first report (Sept. 1, 1916, to June 30, 1917) shows that of 7,588 injuries similarly defined, 58 per cent caused disability not in excess of 14 days, 23 per cent over 14 but not over 28 days, and 19 per cent for more than 28 days. These computations indicate, therefore, that approximately 35 to 40 per cent of industrial accidents cause disability in excess of the two weeks' period for which medical aid is provided in a number of States.

Likewise, statistics as to medical costs are not as fully developed as is desirable, but some commission reports afford information on this point. Thus in California, in the year 1916, when there was no money limit but a 90-day time limit on medical and surgical relief, \$17.87 is given as the average cost of such relief in the cases in which actual amounts were reported. The workmen's compensation aid bureau of New Jersey, where the limit is \$50 to be expended within two weeks, reports the average cost per case to be \$15.20 in 1915, and \$16.46 in 1916. In 3,503 cases of injuries to persons covered by the State fund of New York in 1916, the cost of medical and hospital treatment averaged \$15.92; in this State there is a 60-day time limit but no limit as to the amount. The commission of Wisconsin, where there is a 90-day time limit but no limit as to amount, gives \$25 as the average cost per case during a period of six years; while the Maryland commission reports the medical cost of 32,329 accidents in 1917 which did not give rise to claims for compensation to be \$98,603, or just in excess of \$3 per case.

Other figures might be given, but these are doubtless sufficient evidence of the facts as they exist generally. They certainly discredit, if they do not refute absolutely, the claim of the employer that to allow liberal or unrestricted benefits would impose an excessive burden on him or the industry; and of the insurer that such provi-

¹ A Standard Accident Table: By I. M. Rubinow, Ph. D. The Spectator Co.

sions would prevent the making of rates with sufficient accuracy, by reason of the uncertainty involved. While they indicate adequate provision for the great bulk of cases numerically, they are not equally satisfying as regards the graver injuries, whose severity must be taken into account in any consideration of the economic effects of industrial accidents; and it is the economic effects of accidents and not their mere enumeration with which compensation is primarily concerned. In other words, the sufficiency of a compensation system will be determined by the adequacy of its provisions in behalf of the smaller number of more severe injuries, whose effects are truly burdensome, rather than by its affording a minimum of relief to the 60 per cent, more or less, of the victims of industrial accident who are able to return to work before the expiration of the two weeks' waiting period, which is still the most common provision in this regard. As pointed out by an official of a State whose law contained such a provision, the standard of adequate relief has not been reached when a disabled man is discharged from a hospital after two weeks and thrown upon the resources of a home from which the pay envelope has been absent for that time, and no compensation payment is due for seven days more.

In this connection may be noted a criticism from a most unexpected source. An Argentine commentator on the compensation law of that Republic¹ begins his discussion of this feature of the act by saying that "our law is most liberal in the sense of fixing no limitations on the employer's obligation. The laws of North America, as a rule, limit this duty extraordinarily." Citations are then made of the provisions of a number of States, showing the limits of responsibility for medical treatment; while the Argentine law requires that "the employer furnish medical and pharmaceutical aid until the occurrence of one of three events: (a) the death of the injured man; (b) the restoration of conditions enabling him to return to work; or (c) a determination of permanent incapacity." Whatever may be the justification for regarding the South American Republics as in general less advanced in matters of social legislation than the States of our Union, there is no room to question the validity of the writer's claim for general superiority in this particular.

RETURN TO WORK.

But the healing of the wound is, in many cases, not equivalent to the restoration of the injured man to his place in industry, and this fact is recognized in a few of the compensation laws to the extent of requiring artificial members to be included in the supplies to be fur-

¹ *Accidentes del Trabajo: Exposicion y Comentarios a la Ley No. 9688 y a sus Decretos Reglamentarios*, por Alejandro M. Unsain. Buenos Aires, 1917.

nished "to cure and relieve from the effects of the injury," as phrased in the law of California. In Nevada such artificial members are to be furnished "as may reasonably be required at the time of the injury and within 90 days thereafter"; in Wisconsin, "as may be reasonably necessary at the end of the healing period"; while under the United States (war risk) law they are to be supplied "as the director may determine to be useful and reasonably necessary." The Oregon statute also authorizes the State commission, on the application of a claimant, to advance the cost of artificial limbs and deduct the same from the last installments of the compensation awarded.

More general phraseology, as "medical, hospital, and surgical supplies, crutches and apparatus as may be reasonably needed" (Colorado), is doubtless capable of construction so as to include artificial members, and such is the practice in some jurisdictions. The law applicable to civil employees of the United States directs the furnishing of "reasonable medical, surgical, and hospital services and supplies," without further detail; and artificial limbs are held by the administrative commission to be included within the terms of the act. Such members, especially legs, are often furnished by employers or insurers on their own motion, as a method of restoring the workman to earning capacity and thus reducing the amount of compensation payable. It may be noted in passing that where the amount payable on account of the loss of a member is fixed by schedule and is not dependent on the loss of earning power, or where there has been a lump-sum settlement, no such incentive to furnish an artificial limb exists, nor is such action taken; on the other hand, the employee is enabled to make such purchase for himself and resume employment without diminution of his compensation benefits. Better results will usually be obtained, no doubt, where there is a supervisory interest shown, with some external aid and incentive to a proper equipment and retraining, where necessary.

A single State (Massachusetts, ch. 231, Acts of 1918) has taken action in this field. The act named creates in the industrial accident board of the State "a division for the training and instruction of persons whose capacity to earn a living has in any way been destroyed or impaired through industrial accident." Cooperation with the Government of the United States, as well as with the State board of education, is authorized, to procure "such education, training, and employment as will tend to restore capacity to earn a livelihood." This is the latest step in advance, but is so logically connected with the idea of compensation that its adoption in other States must be regarded as practically inevitable.

Granting the power of the commissions to construe such general provisions as appear in the Colorado and Federal laws quoted above

(which are similar to those of a number of other laws), the fact remains that these bodies are giving varied construction to these provisions. Furthermore, the supplying of artificial members is, in many instances, but one step in the process of rehabilitation; and probably no commission, except that of Massachusetts, would feel authorized, under existing law, to go so far as to enter upon a process of retraining the injured man for a new occupation, should his injury debar from a resumption of his former one. But purely as an economic proposition, relieving the employer, the insurer, or the State fund from the burden of long-continuing payments, and perhaps ultimately the community of a public charge, and without regard to the urgent and even compelling humanitarian argument, it can hardly be denied that the work of the compensation board is incomplete until every reasonable effort has been made to place the injured workman in a position of self-respecting productiveness and independence.

Some amendments of laws would be necessary for the accomplishment of this end in addition to the authorization of full medical and surgical aid, the supply of suitable devices, and the retraining of the injured workman, since in some States compensation is payable where the injured person is unable to resume his regular employment or that in which his injury was suffered, without regard to his ability to perform other work. Thus the laws of Michigan and Wisconsin provide that the compensation awarded an employee shall be such an amount "as shall fairly represent the proportionate extent of the impairment of his earning capacity in the employment in which he was working at the time of the accident." The supreme courts of these States agreed in holding that the award in case of an injury is not to be affected by the possibility of profitable employment in some other occupation, that of Wisconsin (*Mellen Lumber Co. v. Industrial Commission* (1913), 142 N. W. 187), sustaining an award as for total disability in the case of a shingle sawyer who lost the thumb and index finger of his left hand, on the ground that "he was totally incapacitated from performing his former work," though granting that he might find another occupation "where he can earn a good wage, and we have little doubt that he will find his place as a useful, self-supporting member of society"; while in the Michigan case (*Foley v. Detroit United Ry.* (1916), 157 N. W. 45), the court affirmed an award to a motorman whose leg was permanently injured, though he subsequently secured employment at the same rate as before the injury. The court in this instance recognized that the law might work inequitably as thus literally applied, but said that the matter was for the legislature and not for the courts.

The Legislature of California disposed of this question by providing for a consideration of the diminished ability of the injured employee

to compete in an open labor market; while in Washington compensation payments for temporary disability are to cease as soon as there is a restoration of the earning power of the workman "at any kind of work." In justice to the workman, he is entitled to all due allowance for the loss of opportunity and earning capacity caused by the injury; but the employer or insurer is no less entitled to reap the benefits of a liberal policy in the way of restoring the capacity for work. A striking illustration in this field comes from the Province of Nova Scotia, whose law makes no general provision for medical or surgical aid, but allows the administrative board to furnish special treatment if it promises to conserve the provincial fund, from which all payments are to be made. In the case of a coal miner left blind by a second eye injury, a specialist advised an operation costing some \$200, and by following out such recommendation the man was enabled to return to work at full wages. The total costs of awards and treatment fell under \$500 in this case, while if the workman had been allowed to go without special treatment they would have amounted to \$4,800, besides leaving him a helpless and burdensome member of the community.

REFUSING TREATMENT.

The question of the acceptance of the proposed remedial devices, treatment, and instruction remains for consideration. It is in large part psychological, and must be met from the mental standpoint of the workman. That every consideration should be shown him, regard being had for his physical condition, mental capacity, age and environment, goes without saying. On the other hand, due weight must be given to the expert opinion of those competent to advise and to the fact that no one has a right voluntarily, even if ignorantly, to persist in making himself a dependent on others, to the loss of his own self-respect and the burdening of the community. The matter of the acceptance of medical and surgical relief lies very close to this subject, though probably it would not be considered that the same compulsory steps could be taken in regard to retraining that would be regarded as proper in the matter of medical and surgical aid. In a considerable number of States, compensation benefits may be withheld if the workman refuses to accept the treatment required to be furnished; and even under the law of Wyoming, which makes no provision for the supply of medical aid, right to compensation is forfeited where the injured man persists "in unsanitary or injurious practices which tend to imperil or retard his recovery, or if he shall refuse to submit to such medical or surgical treatment as is reasonably essential to promote his recovery." This language is stronger than that usually employed, the California law denying

compensation "if and so far as" disability is caused, continued or aggravated by refusal to accept treatment. The laws of Colorado, Illinois, and New Mexico authorize the reduction or suspension of benefits in the discretion of the commission; while in Connecticut, benefits are to be withheld during the refusal or failure of the injured man to accept the treatment provided for by law. The law of Indiana further provides that "no compensation shall at any time be payable for the period of suspension unless in the opinion of the industrial board the circumstances justify the refusal." In Pennsylvania the employee's refusal to accept reasonable services and supplies forfeits "all rights to compensation for any injury or any increase in his incapacity shown to have resulted from such refusal."

The construction placed on these provisions of law by the courts and commissions is of primary importance, both because of the discretion formally conferred, and because the question is from its very nature largely one of opinion and judgment. The Supreme Court of Michigan confirmed an award where an operation was delayed by reason of the injured man's unwillingness to undergo a serious surgical operation, urged as the only possibility of saving his life. The operation was finally assented to and performed, but though temporarily there were favorable results, death ensued. The court took into consideration the fact that the injured man was a foreigner, little able to understand what was said to him, was suffering great pain, and in strange surroundings, so that under the circumstances he could not properly be charged with unreasonableness or intentional and willful misconduct. (*Jendrus v. Detroit Steel Products Co.* (1913), 144 N. W. 563.) When, however, the operation was a simple one attended by comparatively little danger or suffering, and reasonably likely to afford relief from disability, a suspension of payments was held by the same court to be warranted. (*Kricinovich v. American Car & Foundry Co.* (1916), 159 N. W. 302.)

A leading case is that of *Lesh v. Illinois Steel Co.* (1916), 157 N. W. 539, in which the Supreme Court of Wisconsin sustained the State commission in rejecting the claim of a man whose disability subsequent to a fixed date was held by three physicians and surgeons to have "resulted directly from the injured man's willful refusal to submit himself to safe and simple medical treatment." The continuing disability was held to be "not proximately caused by the accident, but is the direct result of such unreasonable refusal." It was said not to be the duty of society to carry the burden caused by such wrongful act; and while there was no question of compelling the man to submit to an operation, he could not while refusing one offer himself as a claimant of the benefits provided by the compensation law.

A clear cut illustration of this principle is found in a case decided by the California commission where a simple fracture was neglected, infection and amputation of a limb following. It was held that with proper treatment the injury would have caused temporary disability of but five weeks' duration, and awards were limited accordingly, nothing being allowed for the permanent partial disability. Analogous to the foregoing, and extending the application of the principle to a contiguous field, is the action of the Industrial Accident Board of Massachusetts in suspending compensation payments until a woman should agree to wear an artificial hand and accustom herself to its use, the testimony of physicians being that the stump was suitable for such use, and that she would thereby be restored to an earning capacity.

Admitting these punitive provisions to be proper and even necessary parts of a compensation law, and recognizing that their application, in the instances coming under observation, has been with a fair and equitable recognition of the circumstances, the fact remains that society can not thus dispose entirely of the victim of industrial accident; since if by his negligence or folly he is debarred from the benefits of compensation, he is a possible if not a probable candidate for dependence upon public charity or other form of relief, so that the burden is merely shifted and the mode of its administration varied by withholding a compensation benefit but not otherwise providing for his care. Probably the most difficult problems that arise in this connection are those developing where there has been a failure to render proper first aid, as where sepsis has been allowed to set in, or a fracture has been defectively adjusted. Such cases call for repeated operations, which are in themselves confessions of failure, whether culpable or not, and afford at least an opportunity for refusal by the depressed and suffering patient. In so far as this is true, it emphasizes afresh the importance of competent initial treatment, and hardly less that of thorough after care. In its ultimate aspects, the matter passes beyond the scope of compensation simply, and offers problems to the psychological and vocational expert, as well as to the social worker.

CHOICE OF PHYSICIANS.

The importance of the confidence of the employee in the practitioner attending him, and of a sympathetic understanding by the physician of the situation involved can hardly be overestimated, since a nervous or mental state may be as actually disabling as a physical injury, as witness the instances of neurasthenia and hysteria that every accident board is from time to time compelled to pass upon. This fact gives weight to the question of the choice of the

physician, which is variously disposed of in the different laws. On the very natural assumption that what a man is obliged to do he may reasonably be allowed to do in his own way, the requirement that the employer must furnish a physician seems usually to carry with it the right of choice. On the other hand is the unbroken custom of the individual selecting for himself the man who shall come into his home and enter into the intimate and responsible relations involved. After some years of experience, the legislatures of Massachusetts and Rhode Island so amended their laws in 1917 as to give the employee the power of selection; while the law of Washington, in first providing for medical aid in the same year, granted the same right to the employee. These three laws of such recent date may fairly be regarded as the first fruits of an effort to secure this privilege to the workman generally, though no doubt the movement will yet encounter considerable opposition.

A few States¹ formally permit the employee to waive the benefits of medical aid at the hands of the employer, and allow him to select and pay for his own physician, but this is a privilege of doubtful value from the compensation standpoint; and it is not clear what obstacle to such action could be interposed in other States, in the absence of a showing that the physician selected by the workman was incompetent. Even in the States named refusal to accept suitable medical treatment, or persistence in insanitary practices, may lead to the withholding of benefits.

In California the law requires the employer to tender the employee one change of physicians, if so requested, the selection to be made from a list of three named by the employer, if so many competent physicians are locally available; while in Indiana the industrial board may order the employer to change physicians where the employee refuses to accept the services originally provided, if the circumstances appear to justify such refusal. A common provision of the laws is one that authorizes the employee to call in a physician at the employer's expense where the latter has failed to take timely action. But an employer can not be held responsible where not informed of the need, nor will he be liable for fees incurred by the employee after the services of a competent physician have been tendered. (*City of Milwaukee v. Miller* (Wis. Sup. Ct., 1913), 144 N. W. 188.)

Where there is an administrative commission with a physician or physicians on its staff, much can be done in an advisory way tending to the establishment of higher standards, as well as the maintenance of comity, whether the right of choice is exercised by the

¹ Connecticut, Idaho, and Illinois.

employer or by the employee. Thus the Industrial Accident Commission of California, in its report for 1916-17, tells of the work of its medical department in examining and passing upon the cases of injured workmen for the commission and for insurance companies as well. While the aim is primarily administrative, the examination results in procuring for the injured man an unbiased and disinterested report which is much appreciated. Examinations are also made of men under treatment by contract physicians, for the satisfaction of the men themselves, often resulting in a change of practitioners or the exaction of satisfactory treatment at the hands of the one already employed. The opportunities for abuse and dissatisfaction are so numerous and almost inescapable where there is an unrestricted choice by either party, that some such supervision as is indicated by the practice of the California commission, or some such selection from a nominated roster as is provided for by the law of that State, seems highly desirable if not necessary. The method provided for by the British compensation act, of designating practitioners of recognized standing and ability to represent the administrative authorities in the various localities, permits easy access by either party in interest to a competent and unbiased arbiter; while the system of local boards representing both employer and employees, provided for by the law of Washington, will necessarily afford an opportunity for the closest observation of the medical and surgical aid furnished, safeguarding the rights and interests of both parties.

THE PHYSICIAN AS A FACTOR IN ADMINISTRATION.

It is evident, therefore, that the physician is not only the sole agent as regards proper treatment of the injured workman, but he is also a factor of prime importance as an adviser of both employer and employee in the matter of settlements, and of the administrative boards and courts in the adjustment of disputes and the determination of awards. This aspect of the case is suggestively developed in a paper recently read by Mr. Charles S. Andrus, chairman of the Illinois Industrial Commission, at a session of the American Medical Association held in Chicago in June of the current year.¹

Attention was first directed to the importance of the question of adequate provision for the injured workman and his family, in view of the fact of their dependence upon the continued receipt of a daily wage, and of the estimated number of industrial accidents occurring annually in the United States. This is given at 1,000,000, causing either fatal or nonfatal injuries. What place the physician can fill is necessarily dependent on the method of administration in

¹ "The responsibility of industrial boards to employer and employee as influenced by the opinion of the medical examiner." *Journal, American Medical Association*, Aug. 17, 1918. Pp. 508-511.

effect under the law; for although his technical knowledge and opinion must be availed of under any form, his status as an adviser for his client or as an expert witness before a court will be widely different from that of an officer of the administration, with every reason for maintaining an unprejudiced attitude and none for making a case for either party.

Considering then the mode of administration provided for in the various States of the Union, and limiting our survey to the 38 within continental boundaries which have compensation laws, it appears that there are special agencies provided for the administration of these laws in 30 States—boards or commissions being found in 25, while in 5 a single official administers the act. In 8 States the act is administered by the courts.¹

Questions of degree of disability, prospect of recovery, proper time allowance, causal connection between an injury and subsequent physical condition or death—these and many others lie peculiarly in the province of the physician. In the latter group of States noted above, the courts determine these as other questions by testimony, expert and otherwise. The physician, as an expert witness, is not allowed to volunteer an opinion, but is carefully examined by the attorney for the party in whose behalf he appears, who is on guard against calling out any fact or opinion not advantageous to his client. Cross-examination usually begets antagonism, and the witness inclines to a defense of his direct statements. A conflict of medical opinion, even if only apparent, confuses the court and discredits the profession in the mind of the layman, who may not be able to discriminate between objective and subjective symptoms. In view of these conditions the writer concludes that "the method of determining the extent of physical ability by expert testimony has not proved a success."

On the other hand, when a board has medical questions before it, the physician may be much more freely called upon and may much more freely express himself. The matter is further simplified in those States in which there is a monopolistic State fund, no question of conflict of interest appearing, since not only the sums awarded but the physicians' fees as well are paid from the fund. "There is thus every inducement for the physician to assist the commission in its work, and to disclose fully the medical facts in each case." Such an absence of adverse interests exists at present in but five States, by far the greater number of commissions being called upon to adjust disputes between the injured workman and his employer or the latter's insurer. It is such a situation that exists in Illinois,

¹ These figures do not exactly agree with those presented by Mr. Andrus, but are corrected in accordance with the most recent legislative action.

with which Mr. Andrus is therefore experimentally familiar. In this State, the commission has established a medical department, and where a dispute involves a medical question, the employee is examined by a physician of this department, whose opinion naturally is considered of great weight. Other advantages flowing from this arrangement are the availability of medical officers as advisers in securing the services of specialists when necessary, and the status of such officers in the minds of claimants, who have come to recognize them as impartial and disinterested, thereby circumventing the efforts of the ambulance chaser on the one hand and the claim agent on the other. Not the least important is the influence of such officers in encouraging employers to procure competent physicians and the rendering of adequate medical service. An instance is given where a firm was led to expend some \$600 per month instead of \$75 for physicians' services, in the first year reducing the number of suits from 31 to 1, and saving \$30,000 to the claim department.

The conclusions and implications of this address are borne out and emphasized by the recommendations of the Workmen's Compensation Aid Board of New Jersey in its report for the year 1916. This report stresses the importance of the services of the physician where employer and employee differ as to the nature and severity of an injury, while the administration is under the necessity of procuring the advice of a disinterested physician as a guide to its referees. Three modes of providing for such aid are suggested: (a) By the retention of one or two physicians on the staff of the bureau, to go from place to place as their services are required; (b) by the authorization of any physician in the State to furnish an opinion in any particular case; and (c) by designating a physician in each important city or district to render such assistance as may be desired, paying him on either a fee or salary basis.

The first method is regarded as unduly expensive; the second would not provide for the presence of the physician at such hearings as might be held, such presence often being a necessity; while the third has in its favor the development of experience and familiarity with the work in hand, and a consequent facility and acceptableness in the matter of determinations. It will be noted that this last method is practically an adaptation of the system of certified referee or advisory physicians provided for by the law of Great Britain.

SUMMARY.

The necessity of prompt attention of a medical and surgical nature, to be furnished by the employer as a part of the compensation due, is all but universally recognized, though it is as yet the exception

rather than the rule that the treatment of serious injuries is sufficiently provided for.

No State, with the single exception of Massachusetts, looks beyond the healing of the wound, with perhaps some supply of artificial limbs, and compensation, more or less adequate, for the resultant disability, the matter of rehabilitation being as yet generally unprovided for.

The rejection of medical treatment is usually penalized, possibly as a necessary mode of dealing with a difficult subject; but such penalization is nevertheless unsatisfactory as to both immediate and final results.

A partial solution of this difficulty is to be found in the procuring of medical aid that is both adequate and acceptable, to which end there must be a genuine cooperation of both parties, with full recognition of mutual rights and of the circumstances in each case.

The usefulness of the physician, both as practitioner and as adviser, is greatly increased under an administrative system in which the profession can be given official recognition, and where the opportunity for suspecting bias and partisanship is reduced to a minimum, thus emphasizing the importance of administration by special bodies designated for the purpose instead of by the courts.

WORKMEN'S COMPENSATION EXPERIENCE IN KENTUCKY.

The Workmen's Compensation Board of the State of Kentucky presents its first annual report covering the eleven months from August 1, 1916, to June 30, 1917.¹ The report opens with a brief account of the enactment of the law, referring to provisions incorporated therein for the purpose of complying with suggestions embodied in the decision of the court of appeals of the State declaring an earlier act unconstitutional. The act of 1914 was nominally elective in form, but contained provisions as to implied election, etc., which led the court of appeals to construe the act as compulsory and in conflict with the provisions of the State constitution. To overcome this objection, the act of 1916 requires from each employee, as well as from employers, an affirmative act of acceptance in writing, as to which provision the board says: "In this connection it may not be improper to state that the requirement of the Kentucky act as to individual written acceptance by the employees has been the subject of more complaints to the board during the administration of the act than has any other provision of the law." It is further stated that,

¹ Workmen's Compensation Board, Commonwealth of Kentucky: Annual Report of Department, August 1, 1916, to June 30, 1917. Frankfort, 1918. 52 pp.

"subsequent experience developed under the actual administration of the law indicates that if any constitutionally valid form of implied acceptance can be devised it would be advantageous to incorporate it in the act."

The law is limited in its application to establishments having five or more employees, and excludes all steam railways and agriculture. At the end of the year covered by the report, June 30, 1917, there were 4,007 employers who had accepted the provisions of the law, while 25 who had at some time come under the act had withdrawn. By the end of the calendar year 416 additional employers had come under the act, and 12 others had withdrawn. The number of employees' acceptances is not recorded by the board, so that there is no method of determining the extent of acceptance of the act on their part. However, accident reports filed by employers total 12,665 for the eleven months of operation, resulting in 3,331 compensable cases for which settlements or claims were on record.

The act permits insurance in stock and other companies, and also authorizes the form of State mutual insurance in use in the States of Massachusetts and Texas. The benefits allowed under the law are computed on a basis of 65 per cent of the injured workman's wages, and when the board announced premium rates under its authority to fix such rates, it was found that they were below the charges made for insurance in other States paying corresponding compensation benefits, with the single exception of the State of Massachusetts. As a consequence, employers were not interested in forming a mutual company under the grant of law contained in the act; while on the other hand the National Service Bureau of the casualty companies was unwilling to submit competitive rates, nor did it officially enter the State as an organization. Individual companies were authorized, however, to write insurance if they chose to do so, which a number of them decided to do. Companies not connected with the bureau also entered the field, while 123 of the more important employers carried their own risk. It appears, therefore, that the matter of insurance is disposed of without the operation of a State organization, by reason of the power of the compensation board to regulate the premium rate. However, in order to secure adequate and impartial inspection for credit rating, a branch service bureau was organized for this State as an adjunct of the national bureau but a separate organization. The services of this bureau are available and may be used by all insurers doing business in the State whether members of the bureau or not, nonmembers paying a proportionate fee for services rendered.

The compensation board is maintained by a 4 per cent premium tax paid by insurance companies, and a pro rata amount paid by self-insurers. This has been found adequate for the support of the depart-

ment with no other aid than the initial appropriation of \$7,500 given as a preliminary grant, contained in the law at the time of its enactment. The total income of the period was \$36,236, while the disbursements amounted to \$26,589, leaving a balance of \$9,647, showing that a 4 per cent levy is adequate for the support of the board at its present rate of expenditures. To offset whatever expense the law may create, it is estimated that the State is saved an amount approximating \$75,000 per annum as court costs, without including the expenses of litigation which would fall upon employers and employees under a liability system.

Emphasis is laid on the importance of adequate medical aid to procure the quickest and most complete recovery and industrial rehabilitation. The cooperation of physicians has generally been cordial, but a few instances of excessive charges were found. Some stress is laid on the matter of the certainty of the collection of the physicians' fees as against the uncertainty where the injured workman was alone liable. This definiteness of payment is referred to in the law itself as proper to be considered by the board in determining what medical fees are reasonable. No general schedule has been adopted as yet, but rates have been fixed as the occasion arose.

No general presentation of statistics is attempted on account of the incompleteness of data available at the time.

WORKMEN'S COMPENSATION IN BRITISH COLUMBIA, 1917.¹

The first annual report of the Workmen's Compensation Board of the Province of British Columbia gives an account of the workings of the act of May 31, 1916, during the first year of its operation. Prior to January 1, 1917, industrial injuries had been compensated under an act of 1902, drawn up very much along the lines of the British compensation law. The present law much more closely resembles the type in force in the United States. Indeed, the bill was drawn by a commission which made a study of a number of the State laws, and the act incorporates what the commission considered the best features of a number of them.²

The act is administered by a commission of three persons appointed for terms of 10 years each, a provision in which the Canadian practice was followed rather than that of the States of the Union, where no such terms of office have been provided for. The old law was of such limited scope that the commission found itself confronted with the necessity of introducing the system as practically a new one, and to

¹ First Annual Report of the Workmen's Compensation Board of the Province of British Columbia for the year ending Dec. 31, 1917. Victoria, B. C., 1918. 30 pp.

² See MONTHLY REVIEW, November, 1916, pp. 554-559.

this end organized early in the year a Province-wide educational campaign.

"The background against which the law is operative includes an annual pay roll of approximately \$100,000,000, approximately 75,000 workmen, about 6,000 employing firms, 400 doctors, 2,000 nurses, 200 dentists, 150 druggists," besides all means of transportation necessary to bring injured workmen to the nearest medical practitioner. Emphasis is placed upon the medical feature of the law on the ground that "the system was unique, inasmuch as it was the only law of its kind in force at the time that carried with it unlimited medical aid." However, the report gives no account of the medical work of the board, either of extent, results, or costs.

Another provision of the act which is particularly emphasized is its monopolistic insurance system. This point was dwelt upon in the report of the investigating commission, and a year's experience by the administrative commission has apparently only served to strengthen the opinions set forth in the report. "The opinion is rapidly growing in effect that private interests should not be permitted to come between the employer and the injured employee and conduct a business for profit, which profit must come from the misery and distress of human beings. It is not a legitimate business, never has been, and can never be made such." Declaring that the administration of a law with this purpose is a function of good government, it is pointed out that "the Province has not made a business proposition of it. The board is simply acting as the administering agent of a fund made up from contributions from all the employers of the Province," every cent of such funds going to the injured workmen or their dependents, less the cost of administration.

Nothing is given to indicate the premium rates charged, nor the amounts collected or disbursed as a whole under the act, and there is no financial statement except as to the amounts of compensation paid for temporary total disability claims completed during the year other than a partial account of the reserves set aside for fatal cases.

The classes of industries are 12 in number, each class embracing from 2 to 48 industries or occupations. The largest number of fatalities in any one group occurred in class 1, which includes the logging industry, which alone was responsible for 43 fatal injuries, the greatest number due to any one cause being 12 as the result of falling trees; in saw and shingle mills 18 other fatalities occurred. Coal mining comes next with 44 fatalities, of which 34 were due to a single explosion. The total number of fatal cases was 217, in 84 of which, up to December 31, reserves had been set aside to the amount of \$306,162, or an average of \$3,645 per case.

The total number of nonfatal accidents is not given, the tables presented showing only the number of accidents for each class and subclass in which claims were submitted and final settlements made during 1917, together with the amounts of compensation paid therefor. There were 5,483 such accidents, of which the largest number was found in class 1; 530 of these occurred in subclass 3, "Logging, including cutting, river driving, rafting, booming"; while subclass 5, sawmills, stood next with 511 accidents. The largest number of accidents in a single subclass was 677, found in coal mining, subclass 1, class 3. Metal mining was the next most hazardous subclass, with 393 accidents, while a single establishment, the Consolidated Mining & Smelting Co. of Canada (Ltd.), forming a subclass in itself, was responsible for 372 accidents.

More than half (3,035) of all the 5,483 cases of temporary total disability involved disability not in excess of 18 days, 527 showing recovery from disability within 6 days, 1,495 in more than 6 but not more than 12 days, and 1,013 in more than 12 but not more than 18 days. Other tables are given showing the number of injuries due to mechanical causes and to nonmechanical causes, the nationality, and the average wage, by nationality groups, of the persons injured.

It is admitted that there is no sufficient basis for deductions from the limited amount of material available from a single year's experience. However, one table of the report, showing the number and duration of injuries, classified by their nature, is of sufficient interest to warrant its reproduction; the average for all the cases reported is given as 24.45 workdays:

TEMPORARY TOTAL DISABILITY CLAIMS SETTLED DURING 1917 UNDER BRITISH COLUMBIA WORKMEN'S COMPENSATION ACT, BY NATURE OF INJURIES.

Nature of injury.	Number of injuries.	Duration of disability (workdays).	Average duration of disability for each accident (workdays).
Cuts.....	1,117	20,626	18.46
Bruises.....	1,658	33,040	19.93
Sprains.....	579	10,653	18.39
Punctures.....	232	3,466	14.94
Fractures.....	674	31,380	46.57
Dislocations.....	60	1,888	31.47
Amputations.....	137	5,536	40.41
Scalds and burns.....	141	3,092	21.93
Infections.....	701	20,318	28.99
All others.....	184	4,070	22.12
Total.....	5,483	134,069	.....

NEW LAW REGARDING RETIREMENT ANNUITIES IN FRANCE.¹

By a law which will become effective January 1, 1919, the national retirement fund of France is authorized to contract for annuities which are immediately payable, whatever may be the age of the depositors to the fund. The law in force at present fixes 50 years as the lowest age when annuities become payable.

A provision of this new law allows the depositor to contract not only for an immediate annuity for his own benefit but also for a reversion, either in its entirety or for a definite portion, in favor of his consort. The provision of the law now in force relative to the maximum amount of annual premiums which may be paid by a single depositor is repealed. The fund may receive annual premiums in any amount, provided they do not constitute a pension in excess of 2,400 francs (\$463.20), which is the highest annuity for which the fund is authorized to contract.

These modifications allow persons having small savings, who before the war were in receipt of an income sufficient to assure their comfort, but who under present conditions find it necessary to resort to some method of sensibly increasing their incomes, to secure an immediate annuity by depositing a small payment in the retirement fund. By reason of the advantages of reversion, which may be stipulated, these small deposits, besides adding to the resources of the depositors, definitely assure the future comfort of the consort.

An old person, having lost his children through the war and not under the necessity of further saving for their benefit, may enhance his own comfort by depositing a fully prepaid premium in the national old-age retirement fund.

Parents may provide annuities for minor children by the payment of a single premium sufficient to assure the maximum annuity.

The fund is directed to establish a new tariff of premiums and to adopt regulations necessary to comply with this act.

UNEMPLOYMENT FUNDS IN FRANCE.

The decree signed by the President, the Minister of Labor, and the Minister of Finance, April 19, 1918, in pursuance of the decree of November 24, 1914, modified by the decree of January 9, 1915, fixing the requirements which the municipal and departmental unemployment funds must meet in order to obtain subsidies from the national unemployment fund, and in pursuance of article 21 of the law of March 29, 1918, concerning the opening and closing of budget-

¹ La République Française, Paris, Aug. 9, 1918.

ary credit accounts for the fiscal year 1917, makes the following provisions:

ARTICLE 1. Unemployment funds created by Departments and communes may obtain subsidies from the national unemployment fund if they comply with the conditions of the present decree.

These subsidies are only granted when the population of the commune or group of communes for which the local unemployment fund has been created numbers at least 5,000.

The by-laws of the unemployment funds are subject to the approval of the Minister of Labor and Social Welfare.

ART. 2. Only unemployed workers who have, during a sufficiently long period immediately before their unemployment, worked in a calling from which they drew regular wages are entitled to assistance from these funds.

The following may not receive aid from these funds:

1. Persons who, without any valid reason, refuse employment offered them.
2. Persons not living by their work. Included in this class are the beneficiaries of pensions under the law of April 5, 1910, relating to workmen's and agricultural laborers' pensions, and the beneficiaries of aid granted under the law of July 14, 1905, to the aged, infirm, and incurable.
3. Persons receiving allowances provided by the law of August 5, 1914, relating to grants to families of mobilized men.

ART. 3. The award of unemployment benefits shall be effected by a commission appointed by the prefect or the mayor, according as to whether the unemployment fund is departmental or communal. The commission shall be composed of an equal number of employers and workmen. The equipartisan administrative board of the employment office may act as such a commission. The commission shall in any case keep in constant touch with the employment office, with the view of securing employment for the unemployed.

ART. 4. The rates of the unemployment benefits are to be fixed by the by-laws of the unemployment funds.

In the computation of the State subsidy only that part of the benefits paid to unemployed workers is taken into account which does not exceed the following maximum rates:

For the unemployed head of a family, 1.5 francs (28.9 cents) a day.

For the unemployed consort, for a child less than 16 years old not working or earning less than 1 franc (19.3 cents) a day, 1 franc a day.

For an ascendant relative dependent upon the head of the house, 75 centimes (14.5 cents) a day. The total amount of the benefits allowed to the same household must, however, not exceed 4 francs (77.2 cents) a day.

ART. 5. The State subsidy is fixed at 33 per cent of the amount of financial assistance allowed according to the conditions determined by article 4.

The Minister of Labor may, in exceptional cases, grant State subsidies for assistance to be given in the form of orders for commodities or in the form of meal tickets.

ART. 6. Accounts of the unemployment funds must be kept in such a way that unemployment statistics can be compiled from them and that it can be ascertained whether the provisions of the present decree are being complied with.

These accounts should be accessible at all times to persons designated by the Minister of Labor or by the prefect of the Department.

ART. 7. A report of the operations of each month, conforming to instructions issued by the Minister of Labor, shall be transmitted to the latter during the following month through the prefect, who shall verify the report and correct it if necessary.

ART. 8. There may be created departmental funds to aid in cases of partial unemployment due to shortage of the supply of raw materials or of coal in industrial establishments. These funds shall pay to the idle workers of the establishments suspending work indemnities of 3 francs (57.9 cents) for an entire day of unemployment for adults, and 2 francs (38.6 cents) for workers of less than 16 years, without, however, the indemnities in any case being more than 50 per cent of the regular normal current wages.

The funds for partial unemployment may receive subsidies from the State, according to article 5; these subsidies shall be computed on the basis of the cash benefits regulated in the preceding paragraph, and their grant is conditioned upon the fact that the employers shall contribute at least one-third of the amounts paid to their personnel in employment benefits, and that, moreover, the by-laws of the said funds shall conform to a model set of by-laws jointly agreed upon by the Ministers of Labor and Social Welfare and of Finance.

ART. 9. The decrees of November 24, 1914, and of January 9, 1915, are abrogated.

ART. 10. The Minister of Labor and Social Welfare and the Minister of Finance are charged, each as it concerns him, with the application of the present decree, which will be published in the *Journal Officiel de la Republique Francaise* and inserted in the *Bulletin of Laws*.

THE COST OF PENSIONS IN GERMANY'S WAR BILL.

George Bernhard, editor of *Plutus*, an economic and financial magazine, devotes the sixth of a series of articles on reforms in Germany's financial system to a discussion of the cost to the German Treasury of pensions to the war-disabled and dependents of the fallen,¹ an item which he disregarded in his previous articles when dealing with the costs of the War which, apart from the expenses of demobilization, he estimated at 120,000,000,000 marks (\$28,560,000,000).

In the present article he points out that it is no easy task to compute the sum necessary to meet the cost of providing for disabled soldiers and the dependents of the fallen. The difficulty is caused, for one thing, by the fact that the principles upon which procedure should be based have not yet been determined, though it is clear that the old principles must be discarded. After the Franco-Prussian War the provisions made for the disabled soldiers were neither adequate nor sufficiently well administered to meet the maximum claims that those who had taken part in the war could make, and a poor organ grinder decorated with the Iron Cross and limping along on one leg was a common enough sight. When the enthusiasm of the early days of the present war was at its height the view was very generally expressed that after the conclusion of the war there must be no delay in paying to the full the debt of gratitude owed to its soldiers by the nation. Meanwhile, however, this early enthusiasm has abated considerably, and the slowly dawning consciousness of the vast financial burdens that will be imposed upon the country has already in some quarters

¹ *Plutus*, Berlin, June 5, 1918.

engendered a disposition to be niggardly in the matter of payments to the war-disabled and dependents of fallen soldiers. It would be the greatest mistake to lend an ear to the advocates of such a policy, quite apart from sentimental and ethical reasons. It will be impossible to do all that might be desirable, for, on however generous a scale the war pensions are assessed, the poor fellows who have no other resources will not find existence any too easy. The correct standpoint for the solution of the problem of providing for the war-disabled and dependents of the fallen can be arrived at only by making its discussion a matter of practical politics. Germany's body politic has sustained blows in this War compared with which the experiences of former wars appear insignificant. The economic welfare of the returning soldiers will guide their political inclinations. It is possible that at first the majority of the returning soldiers will be delighted to be able to live once more quietly in the bosom of their families, and that after the long months of discomfort and privation they will not press their former demands for comfortable and healthful conditions, and even that those very groups of citizens whose verdict is always invited when political reforms are contemplated will remain at first indifferent to politics. But that will be a temporary phase. The claims of existence will soon be revived, and many political parties will aid in causing the revival. If once the millions of disabled soldiers can complain with justice that the country has neglected to pay the debt of gratitude it owes, the result will be deep resentment in the hearts of these men and a rising flood of hatred against the ruling classes of society. All who desire the peaceful development of the German nation dare not approach the solution of the pensions problem in a narrow-minded spirit.

In any political discussions that may take place on the pensions question the following sequence of ideas must not be undervalued. The War which has been going on for so long had perhaps as one of its underlying causes the complete indifference of wide strata of the population to problems of world politics (*Weltpolitik*). If the importance of a strong foreign policy had been brought home to the masses of the German nation sooner, much would certainly have been avoided which in the end must be held partly responsible for the War. After the War the German people must abandon this attitude, long persisted in, of indifference to world politics, and the foreign policy must play a more important part in German political thought. A strong foreign policy can be carried on only when it finds support among the broad masses of the nation, and its conduct must not be obstructed by domestic political difficulties. In consequence, all possible efforts must be made to encourage tendencies toward modernization, and all material

wants which create or increase domestic political difficulties must be removed. This alone makes it necessary to deal with the pensions problem in a sensible and generous fashion.

SOCIAL POSITION AND INCOME AS RULING FACTORS.

The principle obtaining hitherto that pensions and war bonuses must be paid according to military rank can not be retained. The Reichstag has already wisely resolved in principle that in the assessment of pensions or composition grants regard ought to be paid not only to military rank but also to the social position and the income in civil life of the fallen and wounded.

This principle will play an important part in the matter of provision for soldiers' dependents. This is not the first war in which men of the older classes in the Landwehr have been sent to the front. But a novelty in the present War has been the enlistment of numbers of elderly men liable to serve in the Landstrum. Many soldiers have been killed in battle who, as upper officials, artists, men of letters, factory managers, etc., enjoyed a considerable income in civil life. Many of these people might well have provided for their families by investments of the most varied nature, but a far larger number of families relied entirely on the income of the breadwinner. His death in battle has accordingly deprived these families of their social position, and the increase of the proletariat caused by the war will become far greater if these families have to be content with the meager pension belonging to the rank of the dead man. That in cases like this the State, with the best will in the world, can not intervene to the full is obvious, and therefore the countless millions of voluntary donations which have poured into the National Fund for the relief of the dependents of soldiers fallen in battle and the Ludendorff Fund for the war-disabled are a great boon, for if these funds are wisely administered they will be able to supplement State relief, which is bound to be managed to a certain extent on hard and fast lines. So far, however, as sensible principles can prevail in any rigid scheme it must be the task of the State to manage relief of soldiers' dependents better than it has done hitherto.

The financial burdens of the war, however, will be considerably increased thereby. On the other hand it will be possible, especially in the domain of relief of the war-disabled, to adjust matters to a certain extent. For while in settling all these questions political sagacity and generosity must proceed hand in hand, yet every form of sentimentality must be avoided. In granting relief to the war-disabled the guiding principle must be that ample compensation should be given to a man whose earning capacity has been reduced in the service of his country, but under no circumstances must the

fact of wounds and disablement form per se the basis of a demand for a permanent pension from the State. At the present time the relief of the war-disabled is not only a moral and ethical demand but a national economic question of considerable magnitude. The large number of men fallen in battle in itself betokens a very considerable weakening of Germany's economic productive strength. If to the numbers of the fallen are added the very large numbers of the war-disabled, a shortage of labor ensues which is bound to weaken most disastrously the efficiency of Germany's trade, industry, and agriculture, and at the same time injure very seriously her capacity to compete with foreign countries. Rightly enough for that reason ample resources have during the war been placed at the disposal of voluntary movements aiming at restoring the war-disabled as soon as possible to the country's service. The advance of medical science renders possible methods of relief hitherto unknown, and technical perfection in the production of artificial limbs allows of men, who formerly would have had to remain permanently crippled in an economic sense, being restored to a vigorous and lasting vocational activity. No one who in this way can be made fully capable of earning his living should any longer be allowed to claim support apart, perhaps, from temporary grants which may be given until his earning capacity is fully restored. On the other hand, it will in the same way be possible to raise many men to a higher state of efficiency than would have been possible, considering the nature of their wounds, in earlier wars. These men will be granted a pension which corresponds only to the actual lessening of earning capacity which may remain after the employment of all medical and technical resources.

ESTIMATED EXPENDITURES.

By adopting this standpoint in the assessment of pensions the following result will perhaps be arrived at: The number of the killed may be estimated at 1,500,000—this estimate is not drawn from official returns, but represents Bernhard's personal views. Among the dead are a considerable number of young men whose death does not make the State liable to give any kind of relief. The number of deaths which make the State liable to grant relief may be taken at one million. To this a further million may be added of men disabled in such a way that they may claim permanent support, and the sum of 1,000 marks (\$238) may be taken as the average sum to be given to each individual, though this is under rather than over the estimated sum required. It follows, then, that at first at least 2,000,000,000 marks (\$476,000,000) annually will be required. This sum will presumably reduce itself comparatively quickly, for the inclusion in the army of the elder classes of the Landstrum will mean

that many men will begin drawing their pensions when already at an advanced age, so that reduction of the sum owing to ordinary mortality must be expected. On the other hand, in the case of soldiers' dependents it must be remembered that the number of war marriages of young people has been extraordinarily large in this war, and that accordingly provision will have to be made for many young orphans and very many widows. This, however, may be compensated for to a certain extent by the fact that owing to the large number of war marriages of young people many of the widows will remarry, and so forfeit their pensions. This may safely be counted upon, for in spite of the reduced chances of marriage experience shows that, given equal chances, widows marry sooner than single girls. Accordingly the original sum, as estimated above, of 2,000,000,000 marks (\$476,000,000) will at least every five years be sensibly reduced.

Whether the Government will adopt this plan and create a capitalized fund is a matter for special discussion. It seems practical to capitalize the pensions fund, since it is necessary to reckon the whole burden in one sum. In order to arrive at this sum it would be better to capitalize the annual pensions at 5 per cent. The sum required is at first 2,000,000,000 marks (\$476,000,000), which is to be reduced every five years, and in about 50 years will have shrunk to a very small amount. It will not perhaps be an error to take 1,250,000,000 marks (\$297,500,000) as the average sum requiring capitalization at 5 per cent.

That would mean that the State would have to find 25,000,000,000 marks (\$5,950,000,000) for the relief of the war-disabled and soldiers' dependents. Summarizing what has been already described, the following list gives an idea of the total financial burdens arising from the war:

	Marks.	
Cost of mobilization.....	1,000,000,000	(\$238,000,000)
Purely military war expenses.....	116,000,000,000	(27,608,000,000)
Cost of feeding the nation and similar charges.....	10,000,000,000	(2,380,000,000)
Compensation to owners in devastated districts.....	5,000,000,000	(1,190,000,000)
Reconstruction of the army and fleet.....	6,000,000,000	(1,428,000,000)
Pensions.....	25,000,000,000	(5,950,000,000)
Total.....	163,000,000,000	(38,794,000,000)

This sum represents the whole financial burden of the war provided that the war is over this year. And this is the sum which must form the basis for computing the extent of future financial reforms.

LABOR LAWS AND REGULATIONS.

LEGISLATION IN THE UNITED STATES LIMITING HOURS OF LABOR FOR MEN.

The first restrictions of hours of labor of adult male employees related to hazardous occupations, such as mining and related employments. These laws were upheld as constitutional partly on the ground of individual health and safety rather than public welfare; that is, were regarded as health rather than labor laws. Railroad laws, the next important class to be enacted, find their justification largely in the safety of the traveling public, though, of course, that of the employees themselves is also a factor.

The general laws defining a day's labor "unless otherwise stipulated by contract" have a value more sentimental than practical. However, the later enactment of eight-hour laws of this class in place of those specifying 10 hours shows the tendency toward a shorter workday. The same is true of the enactment of eight-hour laws with regard to public roads and public works generally, though these stand on a different footing from private employment, since the State has a right to fix the conditions under which work for it and its subdivisions shall be done.

Another tendency to extend the restriction on hours, which had been confined to the labor of children and women and to the dangerous occupations and others depending on special reasons as noted, to the employment of men in general occupations has recently become manifest. Mississippi and Oregon have 10-hour laws applying to all manufacturing establishments, that of the former containing an absolute restriction to 10 hours, while that of Oregon permits not more than 3 hours' overtime work, to be paid for at the rate of time and one-half. The Mississippi act has been held valid by the supreme court of the State, while that of Oregon, after being upheld by the State supreme court, was also sustained by the Supreme Court of the United States in the case of *Bunting v. Oregon*, 37 Sup. Ct. 435.¹

On account of the provision for overtime the contention was raised that the act was more a regulation of wages than of hours of labor. The Federal Supreme Court said that it was not possible or necessary for that court to "know all the conditions that impelled the

¹ See MONTHLY REVIEW for June, 1916, pp. 23-28.

law or its particular form," but quoted with apparent approval the statement of the State supreme court that "it is clear that the intent of the law is to make 10 hours a regular day's labor in the occupations to which reference is made."

A still further step was taken by the Legislature of Alaska in 1917, acting in response to an initiative vote of the people of the Territory. This act limits absolutely (except on proclamation of the governor on request of the Council of National Defense or the Secretary of the Interior in time of war) the hours of labor in all employments to eight per day. However, the act has been declared unconstitutional by the local Federal court, and no appeal was taken.

PROVISIONS OF LAW.

I. IN CERTAIN PRIVATE BUSINESSES.

A. MINES.

1. Eight-hour laws.

- Alaska: Acts of 1913, ch. 29, sec. 2, amended 1915, ch. 6, sec. 2, and 1917, ch. 4, sec. 2.
- Arizona: Rev. Stats. 1913; Civil Code, sec. 3109; Penal Code, sec. 713. Includes hoisting engineers.
- California: Acts of 1913, ch. 186, sec. 1.
- Colorado: Constitution, art. 5; Acts of 1913, ch. 95, sec. 2.
- Idaho: Rev. Code 1909, sec. 1463.
- Kansas: Acts of 1917, ch. 242, sec. 1.
- Missouri: Rev. Stats. 1909, secs. 7813 and 7814a, added by Acts of 1913, p. 399.
- Montana: Constitution, art. 18, sec. 4; Rev. Code 1907, sec. 1734, and sec. 1736, amended by ch. 21, Acts of 1911.
- Nevada: Rev. Laws 1912, secs. 1941, 6554, 6555, 6557. Includes mechanics, engineers, blacksmiths, carpenters, topmen, and all surface employees.
- Oklahoma: Rev. Laws 1910, sec. 4005.
- Oregon: Lord's Oregon Laws, 1910, sec. 5058.
- Pennsylvania: Acts of 1911, p. 102, sec. 1. Hoisting engineers only.
- Utah: Comp. Laws 1907, sec. 1337.
- Washington: Codes and Stats. 1910, sec. 6583.
- Wyoming: Constitution, Art. XIX, sec. 1; Comp. Stats. 1910, sec. 3499.

2. Ten-hour laws.

- Maryland: Pub. Local Laws, 1888, art. 1, sec. 194. (Allegany and Garrett counties only.)

B. SMELTERS, REDUCTION WORKS, ETC.

1. Eight-hour laws.

- Alaska: Acts of 1913, ch. 29, sec. 2, amended by Acts of 1915, ch. 6, sec. 2.
- Arizona: Rev. Stats. 1913; Civil Code, sec. 3108; Penal Code, sec. 713.
- California: Acts of 1913, ch. 186, sec. 1.
- Colorado: Acts of 1913, ch. 95, sec. 2.
- Idaho: Rev. Code 1909, sec. 1464, amended by Acts of 1909, p. 4.
- Missouri: Rev. Stats. 1909, sec. 7813.
- Montana: Constitution, art. 18, sec. 4; Rev. Code 1907, sec. 1739.
- Utah: Comp. Laws, 1907, sec. 1337.
- Wyoming: Comp. Stats. 1910, sec. 3500.

C. MISCELLANEOUS PRIVATE BUSINESSES.

1. Eight-hour laws.

(a) *Electric light and power plants:*

Arizona: Rev. Stats. 1913, Penal Code, sec. 713.

(b) *Coke ovens:*

Alaska: Acts of 1913, ch. 29, sec. 2, amended by Acts of 1915, ch. 6, sec. 2.

Arizona: Rev. Stats. 1913, Penal Code, sec. 713.

Colorado: Acts of 1913, ch. 95, sec. 2.

(c) *Blast furnaces:*

Arizona: Rev. Stats. 1913, Penal Code, sec. 713.

Colorado: Acts of 1913, ch. 95, sec. 2.

(d) *Plaster and cement mills:*

Arizona: Rev. Stats. 1913, Penal Code, sec. 713. (Cement mills only.)

Nevada: Rev. Laws 1912, sec. 6559.

(e) *Plate-glass works:*

Missouri: Rev. Stats. 1909, sec. 7814a, added by Acts of 1913, p. 399.

(f) *Rolling mills, rod mills, stamp mills:*

Alaska: Acts of 1913, ch. 29, sec. 2, amended by Acts of 1915, ch. 6, sec. 2.

Arizona: Rev. Stats. 1913, Penal Code, sec. 713.

Colorado: Acts of 1913, ch. 95, sec. 2. (Stamp mills.)

Idaho: Rev. Code, 1909, sec. 1464, amended by Acts of 1909, p. 4. (Stamp mills.)

Wyoming: Comp. Stats., 1910, sec. 3500. (Stamp mills.)

(g) *Tunnels:*

Arizona: Rev. Stats., 1913, Penal Code, sec. 713.

California: Acts of 1913, ch. 186, sec. 1.

Montana: Rev. Code, 1907, sec. 1736.

(h) *In high-air pressure:*

New Jersey: Acts of 1914, ch. 121.

New York: Consol. Laws, 1909, sec. 134b, added by ch. 291, Acts of 1909, amended by ch. 528, Acts of 1913.

Pennsylvania: Acts of 1917, No. 364.

(In each of these States the limit is 8 hours when air pressure does not exceed 21 pounds to square inch; shorter hours in higher pressures.)

(i) *Irrigation works:*

Montana: Rev. Code, 1907, sec. 2250.

2. Nine-hour laws.

(a) *Telephone operators:*

Montana: Acts of 1909, ch. 75, sec. 1. (In cities of 3,000 or over.)

3. Ten-hour laws.

(a) *Saw and planing mills:*

Arkansas: Acts of 1905, No. 49, secs. 1, 2.

(b) *Bakeries:*

New Jersey: Acts of 1912, ch. 127, sec. 7. (Not more than 60 hours in one week.)

(c) *Brickyards:*

New York: Consol. Laws, 1909, ch. 31, sec. 5. (Owned by corporations.)

3. Ten-hour laws—Concluded.

(d) *Drug stores:*

California: Codes, 1906, Gen. Laws, Act No. 2665 as amended by ch. 224, sec. 2, Acts of 1907.

New York: Consol. Laws, 1909, ch. 45, sec. 236, as amended by ch. 514, secs. 1 and 2, 1914. (Not more than 70 hours in one week.)

(e) *Cotton and woolen mills:*

Georgia: Code, 1910, sec. 3137, as amended by act, p. 65, Acts of 1911. (Not more than 60 hours in one week.)

Maryland: Pub. Gen. Laws, 1911, Art. C, sec. 1. (Except in contracts for work by hour.)

South Carolina: Criminal Code, 1912, sec. 421, amended by Acts of 1916, ch. 547.

4. Eleven-hour laws.

(a) *Factories:*

North Carolina: Acts of 1915, ch. 148. (Not more than 60 hours in one week.)

(b) *Grocery stores:*

New York: Consol. Laws, 1909, ch. 45, art. 11, amended by Acts of 1915, ch. 343. (Not more than 70 hours in one week.)

D. A DAY'S WORK DEFINED, UNLESS OTHERWISE STIPULATED.

1. Eight-hour laws.

California: Political Code, 1906, sec. 3244.

Connecticut: General Stats., 1902, sec. 4692.

Illinois: Hurd's Rev. Stats., 1917, ch. 48, sec. 1.

Indiana: Ann. Stats., 1917, sec. 7977.

Missouri: Rev. Stats., 1909, sec. 7812.

New York: Consol. Laws, 1909, ch. 31, sec. 3, amended by ch. 494, Acts of 1913, and by ch. 152, sec. 1, Acts of 1916.

Ohio: Gen. Code, 1910, sec. 6241.

Pennsylvania: Digest, 1894, p. 1158, sec. 1.

Wisconsin: Stats. 1911, sec. 1729.

7. Ten-hour laws.

Florida: Stats., 1906, sec. 2641.

Maine: Rev. Stats., 1916, ch. 87, sec. 61.

Michigan: Comp. Laws, 1897, sec. 5454.

Minnesota: Gen. Stats., 1913, sec. 3831, amended 1917, ch. 243.

Nebraska: Rev. Stats., 1913, sec. 3561.

New Hampshire: Pub. Stats. 1891, ch. 180, sec. 20.

Rhode Island: Gen. Laws, 1909, ch. 249, sec. 24.

E. A DAY'S WORK LIMITED, REGARDLESS OF CONTRACT.

1. Eight-hour law.

Alaska: Acts of 1917, ch. 55, sec. 1. Applies to all employments. (May be suspended in war time by governor on request of Council of National Defense or Secretary of the Interior.)

2. Ten-hour laws (manufacturing establishments).

Mississippi: Acts of 1912, ch. 157, amended by Acts of 1914, ch. 169, sec. 1 and by Acts of 1916, ch. 547.

Oregon: Acts of 1913, ch. 102. (Employee may work not more than three hours overtime per day, with pay for time and a half.)

II. RAILROADS.

A. TELEGRAPH AND TELEPHONE OPERATORS, DISPATCHERS, SIGNAL MEN, ETC.

1. Eight-hour laws.

- Arkansas: Acts of 1907, Act No. 282, sec. 1.
 Connecticut: Acts of 1909, ch. 242, sec. 1. (Twelve hours in stations open only by day with one operator.)
 Maryland: Pub. Gen. Laws, 1911, Art. XXIII, sec. 323. (In 12 hours.)
 Nevada: Acts of 1913, ch. 283, sec. 2.
 New York: Consol. Laws, 1909, ch. 31, sec. 8, amended 1913, ch. 466.
 Texas: Rev. Civ. Stats., 1911, art. 6586; Rev. Crim. Stats., 1911, art. 1555.
 West Virginia: Ann. Code, 1913, sec. 3023.
 Wisconsin: Stats., 1911, sec. 1816m.

2. Nine-hour laws.

- Missouri: Acts of 1913, p. 187, sec. 1. (Railroad towermen only.)
 Nebraska: Rev. Stats., 1913, sec. 6088. (Not more than 13 hours in stations operated by day only.)
 North Carolina: Acts of 1911, ch. 112, sec. 2. (Not more than 13 hours in stations operated by day only.)
 Oregon: Acts of 1911, ch. 137, sec. 2.
 United States: Acts of 1906-7, ch. 2939, sec. 2, amended by Acts of 1915-16 (64th Cong., 1st sess.), Act No. 68. (Not more than 13 hours in stations operated by day only.)

B. TRAINMEN, ETC.

1. Eight-hour laws.

- United States: Acts of 1915-16 (64th Cong., 1st sess.), Act No. 252.

2. Ten-hour laws.

- Michigan: Con. Laws, 1897, sec. 5459. (Within 12 consecutive hours.)
 New York: Con. Laws, 1909, ch. 31, sec. 7, amended 1913, ch. 462. (Within 12 consecutive hours.)

3. Hours of rest required after specified hours of labor.

(a) *Eight hours of rest required after 16 hours of labor:*

- Arizona: Acts of 1903, Act 34, sec. 1. (Nine hours' rest required.)
 Arkansas: Digest, 1904, sec. 6652.
 Florida: Gen. Stats., 1906, sec. 2643. (After 13 hours of labor.)
 Indiana: Ann. Stats., 1914, sec. 5304.
 Kansas: Gen. Stats., 1909, sec. 7129. (Hours of labor must be consecutive.)
 Michigan: Comp. Laws 1897, sec. 5458. (After 24 hours of labor, trainmen only.)
 Minnesota: Rev. Stats., 1913, sec. 3835. (Hours of labor must be consecutive.)
 Missouri: Rev. Stats., 1909, sec. 7818.
 Montana: Rev. Code, 1907, sec. 1741. (Hours of labor must be consecutive.)
 North Dakota: Acts 1907, ch. 207, sec. 1.
 Ohio: Gen. Code, 1910, sec. 9007, amended by Acts 1913, p. 557.

(b) *Eight hours of rest after 16 consecutive hours of labor; 10 hours of rest after 16 aggregate hours of labor:*

- California: Acts of 1911, ch. 484, sec. 1.
 Nebraska: Rev. Stats., 1913, sec. 6088.
 Nevada: Acts of 1913, ch. 283, sec. 2.

3. Hours of rest required after specified hours of labor—Concluded.

(b) *Eight hours of rest after 16 consecutive hours of labor; 10 hours of rest after 16 aggregate hours of labor*—Concluded.

New Mexico: Stats., 1915, sec. 4755.

New York: Cons. Laws 1909, ch. 31, sec. 7.

North Carolina: Acts of 1913, ch. 112, sec. 2.

Oregon: Acts of 1911, ch. 137, sec. 2. (After 14 hours of labor.)

South Dakota: Acts of 1907, ch. 220, sec. 1.

Texas: Rev. Civil Stats., 1911, sec. 6584.

Wisconsin: Stats., 1911, sec. 1809e. (All employees.)

United States: Acts of 1906-7, ch. 2939, amended by Acts of 1915-16, Act No. 68.

(c) *Ten hours of rest after certain specified hours of labor:*

Colorado: Rev. Stats., 1908, sec. 5515. (After 16 consecutive hours of labor.)

Georgia: Code 1910, sec. 2693. (After 13 hours of labor.)

Iowa: Code 1897, Suppl. 1913, sec. 2110-a.

III. STREET RAILWAYS.

1. Nine-hour laws.

Massachusetts: Acts of 1912, ch. 533, sec. 2. (Within 11 hours.)

2. Ten-hour laws.

Louisiana: Acts of 1886, act 95, amended by Acts of 1902, act No. 122. (Within 12 consecutive hours.)

Michigan: Comp. Laws 1897, sec. 5459. (Within 12 consecutive hours.)

New York: Consol. Laws 1909, ch. 31, sec. 6. (In cities of first and second class hours must be consecutive.)

Rhode Island: Laws of 1909, ch. 218, sec. 1. (Within 12 hours.)

South Carolina: Acts of 1916, No. 544. (Interurban railways.)

Washington: Codes and Stats., 1910, sec. 6578.

3. Twelve-hour laws.

California: Political Code 1906, sec. 3246.

Maryland: Acts of 1898, ch. 123, sec. 793.

New Jersey: Comp. Stats., 1910, p. 4990, sec. 57.

Pennsylvania: Digest 1894, p. 1829, sec. 268.

South Carolina: Code 1912, sec. 431. (Interurban railways. 10 hours; see above.)

IV. WORK DONE IN PRIVATE BUSINESS FOR NATIONAL, STATE, OR MUNICIPAL GOVERNMENTS.

1. Eight-hour laws.

United States: Act of Congress, August 1, 1892, amended by ch. 106, Acts of 1912-13, sec. 3738; Acts of 1911-12, ch. 174.

Alaska: Acts of 1913, ch. 7, secs. 1 and 2.

Arizona: Constitution, Art. XVIII.

California: Penal Code 1906, sec. 653c; Acts of 1917, ch. 52.

Colorado: R. S. 1908, sec. 3921.

Hawaii: Rev. Laws 1915, sec. 161.

Idaho: Acts of 1911, ch. 131, sec. 1, amended 1913, ch. 165.

Indiana: Ann. Stats. 1914, secs. 7977, 7978.

Iowa: Acts of 1917, ch. 183. (State printing and binding; number of hours fixed by typographical union.)

Kansas: Gen. Stats. 1909, sec. 4643, amended by ch. 220, Acts of 1913.

1. Eight-hour laws—Concluded.

Kentucky: Stats. 1915, sec. 2290b.

Maryland: Pub. Local Laws 1888, art. 4, sec. 31a, amended by Acts of 1910, ch. 94, p. 642. (Applies only to Baltimore.)

Massachusetts: Acts of 1909, ch. 514, sec. 37; Acts of 1911, ch. 494, amended by Acts of 1916, ch. 240.

Minnesota: Rev. Stats., 1913, sec. 3832.

Missouri: Acts of 1913, p. 420, sec. 237. Applies only to cities of second class.

Montana: Constitution, art. 18, sec. 4; Rev. Codes 1907, sec. 1739, amended 1917, ch. 30; Acts of 1917, ch. 172.

Nevada: Rev. Laws 1912, sec. 6778; Acts of 1917, ch. 205.

New Jersey: Acts of 1911, ch. 243, sec. 1; Acts of 1913, ch. 253, sec. 1.

New Mexico: Constitution, Art. XX, sec. 19.

New York: Consol. Laws 1909, ch. 31, sec. 3, amended 1913, ch. 494, and 1916, ch. 152.

Ohio: Const. Amendment, 1912, Art. II, sec. 37; Gen. Code 1910, sec. 17-1, added by Acts of 1913, p. 854.

Oklahoma: Constitution, Art. XXIII, sec. 1; Rev. Laws 1910, secs. 3757, 3758.

Oregon: Acts of 1913, ch. 1, secs. 1 and 4; ch. 61, amended 1917, ch. 98.

Pennsylvania: Brightly's Digest, 1893-1903, Act No. 379.

Porto Rico: Rev. Stats., 1911, sec. 1658; Acts of 1913, Act No. 140.

Texas: Acts of 1913, ch. 68, sec. 2.

Utah: Constitution, art. 16, sec. 6; Comp. Laws 1907, sec. 1336.

Washington: Codes and Statutes 1910, sec. 6573.

West Virginia: Ann. Code, 1913, secs. 713, 714.

Wisconsin: Stats. 1911, sec. 1729m.

Wyoming: Acts 1913, ch. 90, sec. 1.

V. PUBLIC EMPLOYMENT.

1. Eight-hour laws.

United States: Act of Congress, August 1, 1892, amended ch. 106, Acts 1912-13, sec. 3738.

Alaska: Acts 1913, ch. 7, sec. 1.

Arizona: Constitution, Art. XVIII.

California: Constitution, art. 20; Penal Code 1906, sec. 653c; Acts of 1917, ch. 35.

Colorado: Rev. Stats., 1908, sec. 3921.

Connecticut: Acts of 1911, ch. 282, sec. 1. (Mechanics in State institutions.)

Hawaii: Rev. Laws 1915, sec. 161.

Idaho: Constitution, art. 13, sec. 2; Acts of 1911, ch. 131, sec. 1; amended ch. 165, Acts of 1913.

Indiana: Ann. Stats. 1914, secs. 7977, 7978.

Kansas: Gen. Stats., 1909, sec. 4643, amended by ch. 220, Acts of 1913.

Kentucky: Stats., 1915, sec. 2290b.

Maryland: Pub. Local Laws 1888, art. 4, sec. 31a; amended by ch. 94, p. 642, Acts of 1910. (Applies only to Baltimore.)

Massachusetts: Acts of 1909, sec. 37; Acts of 1911, ch. 494, amended by Acts of 1916, ch. 240; Acts of 1914, ch. 623.

Minnesota: Rev. Stats. 1913, sec. 3832.

Missouri: Acts of 1913, sec. 237. (Applies only to cities of second class.)

Montana: Constitution, art. 18, sec. 4; Rev. Codes 1907, sec. 1739, amended by Acts of 1917, ch. 30; Acts of 1917, No. 172.

Nevada: Rev. Laws 1912, sec. 6778; Acts of 1917, ch. 205.

1. Eight-hour laws—Concluded.

New Jersey: Acts of 1911, ch. 243, sec. 1.

New Mexico: Constitution, Art. XX, sec. 19.

New York: Consol. Laws 1909, ch. 31, sec. 3; amended by Acts of 1913, ch. 494, and by Acts of 1916, ch. 152.

Ohio: Constitutional amendment, 1912, Art. II, sec. 37; Gen. Code 1910, sec. 17-1; Acts of 1913, p. 854.

Oklahoma: Constitution, Art. XXIII, sec. 1; Rev. Laws 1910, secs 3757, 3758.

Oregon: Lord's Ore. Laws, 1910, sec. 5060; Acts of 1913, ch. 1, sec. 4; Acts of 1913, ch. 61, amended by 1917, ch. 98.

Pennsylvania: Brightly's Digest, 1893-1903, Act No. 379.

Porto Rico: Rev. Stats., 1911, sec. 1657; Acts of 1913, Act No. 140.

Texas: Acts of 1913, ch. 68, sec. 1.

Utah: Constitution, art. 16, sec. 6; Comp. Laws 1907, sec. 1336.

Washington: Codes and Statutes, 1910, sec. 6572.

West Virginia: Ann. Code 1913, secs. 713, 714.

Wisconsin: Stats., 1911, sec. 1729m.

Wyoming: Constitution, Art. XIX, sec. 1; Acts of 1913, ch. 90, sec. 1.

PROVINCIAL LAW OF BUENOS AIRES, ARGENTINA, RELATING TO WOMAN AND CHILD LABOR.

The Statistical Bulletin of the Province of Buenos Aires for the first quarter of 1917,¹ just received, publishes the text of the provincial law of August 27, 1915, and regulations thereunder, relative to the employment of women and children. The principal provisions of the law are as follows:

The prohibition by the national law of nightwork by women shall not include females who are engaged in domestic labor or nursing or those engaged in public exhibitions. No child who has not completed the obligatory course of instruction shall be employed except on proof that such employment is necessary to provide a living for himself or his parents or guardian. Persons under 16 years of age can be employed only when in possession of a work book containing an age certificate, a permit signed by the "Guardian of Minors," a schooling certificate, and a certificate of physical ability.

Employers are required to keep a registry of all persons under 16 years of age employed by them either within or outside of factories, workshops, or offices. The presence of a minor in any such establishment is presumptive of employment.

In order to compel the observance of the national law relative to hours of labor for women and children, every employer operating a factory or workshop, and who employs women or minors under 16 years of age outside of the establishment, is required to keep a register of the women or children so employed. This register shall show the

¹ Boletín de la Dirección General de Estadística del Departamento Provincial del Trabajo. Año XVIII No. 198. La Plata.

names, residence, wages, quality and nature of work done, time of giving out and the completion of the work, etc.

This law, as well as the national laws relating to this subject, are required to be posted in a conspicuous place in the establishments where women and minors are employed.

A perfect state of cleanliness must be maintained. Emanations of sewer or other noxious gases must be prevented; ventilation must be provided for the removal of gases, steam, or dust or other impurities arising from industrial processes. At least 10 cubic meters (353.7 cu. ft.) of air space must be provided for each employee, reasonable temperature maintained and separate conveniences installed for each sex, and a supply of drinking water furnished.

In rooms where machinery is driven by motive force, notices are required to be placed at dangerous points; all doors shall open outwards; doorways and passageways must be kept free from obstructions; rooms must be suitably lighted; elevators, gearing, and flywheels properly protected; conduits covered and dangerous machines and transmission apparatus inclosed.

The Department of Labor must be furnished with the number and description of boilers used and boilers are subject to inspection. Devices for the immediate disconnection of machinery in case of accident must be installed. Emery wheels must be provided with dust-removing devices and with hoods when necessary.

Passenger and freight elevators and cranes shall be of sufficient strength, and unless they are protected and in charge of a competent operator, women and children are prohibited from using them. Automatic doors are required. There shall be direct communication by means of speaking tubes or electric bells between the rooms where force is generated and the points of its delivery. In woodworking shops or where inflammable materials are used covered lamps only may be used. The use of alcohol and mineral oil for lighting purposes is forbidden.

In establishments where inflammable gases may be generated, or where materials susceptible to spontaneous combustion are stored, special measures must be taken to control the generation of gases and to secure adequate ventilation with the outside air.

Electric installations, cables, conductors, etc., must be insulated, motors protected, and storage batteries and transformers isolated. Where generators supply both light and power in establishments operated at night, there must be a special installation for supplying light in the establishment in case of the stoppage of the regular generator.

The employment of women and children is prohibited: In wet spinning rooms, unless precautions are taken to protect the employees

from dampness; where mirrors are coated with quicksilver or a preparation of white lead; at glass furnaces; in the preparation of chemical matches, or in the manufacture of white lead; in loading or unloading ships or as stevedores; in cleaning or oiling machinery in motion, or in cleaning under machinery while it is in motion; in the management of steam-cocks; on scaffolding in the construction, repair, or painting of buildings, and in any underground work.

Minors under 16 years of age may not be employed: To dispense alcoholic drinks, consumed where sold; in public shoe-shining establishments; in public slaughterhouses or in work auxiliary to them; in places where dangerous chemicals or their compounds are prepared, or in other designated dangerous industries.

The maximum weight which may be carried either in or outside of the establishment by male persons under 16 years of age and by women between the ages of 16 and 20 years is fixed at 10 kilos (22 pounds), and by girls under 16 years of age 5 kilos (11 pounds).

The maximum weight which may be moved by vehicle, including the weight of the truck, either in or outside of the establishment, is fixed as follows: In cars moving on rails, by boys under 16 years and by women under 20 years, at 300 kilos (661.4 pounds); girls under 16 years at 150 kilos (330.7 pounds); by hand barrows of three or four wheels—boys under 16 and girls under 18 years of age, 35 kilos (77.2 pounds), and by women 18 to 20 years, 50 kilos (110 pounds).

During working hours no alcoholic drinks shall be carried into workrooms. When the work necessitates a change of clothing, separate rooms for each sex must be provided. The employment of persons under 16 years in certain classes of establishments where their morals may be corrupted is prohibited. Rooms must be provided for mothers nursing their infants, and also rooms where mothers may leave their infants during working hours. (The national law provides that mothers shall be allowed 15 minutes each 2 hours, without loss of pay, in which to nurse their infants.¹)

¹ Ch. 3, art. 9, sec. 8, of Law No. 5291 of the Republic of Argentina.

HOUSING AND WELFARE WORK.

ORDER OF THE INDUSTRIAL COMMISSION OF WISCONSIN REGARDING THE LENGTH OF LUNCH PERIOD FOR FEMALE EMPLOYEES.¹

On July 15, 1918, the Industrial Commission of Wisconsin issued an order regulating the length of the lunch period for women employees in the State. Extended hearings have been conducted by the commission to determine the "hours of labor of women which are conducive to the protection of life, health, safety, or welfare." As a result of these hearings, orders Nos. 1, 2, and 3, issued June 29, 1917, by the commission, relate to night work of women, and order No. 4, issued May 7, 1918, relates to the hours of labor of women employed as conductors, motormen, or flagmen on street car lines.

In continuation of this subject the commission made a study of the proper length of the meal period for women. The law provided that until a determination had been made by the industrial commission one hour should be the length of the lunch period, but special orders had been issued by the commission permitting certain employers in Milwaukee who had complied with minimum requirements for a lunch room for women employees to reduce the period to 45 or 30 minutes. Other employers had reduced the lunch period to 30 minutes without being authorized by the commission to do so.

Physicians who testified before the commission agreed that the standard meal period should be at least one hour, and a 30-minute lunch period was unanimously condemned by them. Employers who testified stated, without exception, that it was a matter of indifference to them whether the period was 45 minutes or one hour, but some stated that the exposure to moral hazards on streets and sometimes in factories was greater during a long lunch period, and that women preferred the shorter period, since it shortened the day's work. A few urged that it is confusing to have a lunch period for women of different length from that for men. Other employers who had provided adequate lunch rooms found that their employees preferred a lunch period of an hour and did better work because of the opportunity for rest.

From the testimony presented the commission decided that the danger of moral hazards to which women may be exposed because of a long lunch period may be obviated by the provision of adequate

¹ Data furnished by Industrial Commission of Wisconsin, Madison.

lunch and rest rooms by employers, and that it is physically injurious to resume work at once after eating a hasty meal. It was held that since men and women usually work in different departments, and the hours per day for men are frequently longer, little inconvenience would be caused by a longer lunch period for women, and that since the commission had no jurisdiction over the conditions of employment of men that fact should not prevent the fixing of a proper lunch period for women.

In small cities, towns, and villages the length of the lunch period was fixed at one hour to enable employees to go to their homes. Since workers in restaurants have usually had no regular lunch period, but have had to get their lunches between waiting on customers, it was decided that while a longer lunch period was desirable a minimum of 30 minutes should be rigidly enforced. For these reasons it was therefore ordered that—

1. At least one hour during each day or night for dinner or other meals must be allowed all female employees, as required by section 1728-2 of the Statutes, except as otherwise provided in the order.
2. In cities of the first class, in manufactories in which a room conveniently located has been adequately equipped as a lunch room, the lunch period may be 45 minutes.
3. In restaurants the meal periods may be 30 minutes, provided that the stretch of labor between meals does not exceed five hours, and provided that the employees eat their meals upon the premises.

ROE GREEN VILLAGE SCHEME, KINGSBURY, ENGLAND.¹

BY SIR FRANK BAINES.²

This scheme was put forward with the support of the Air Ministry by a firm called the Aircraft Manufacturing Co., for housing picked workers employed by them on production of aircraft for the Government.

The housing situation is very serious at Hendon, so much so that accommodation is practically entirely absent for a large proportion of the workmen employed in the area, and the industrial unrest caused by this absence of accommodation has been serious in the extreme. Questions were asked in Parliament, and strikes were threatened unless the problem was dealt with.

As a result, the Treasury agreed to advance to the firm concerned a loan on certain terms, in respect of the housing accommodations, and providing that the necessity for the accommodation for the workers was supported by the department taking the output from the firms in the district.

¹ A description with extensive plans and pictures of this development may be found in *The Builder*; a Record of Architecture and Construction. London. January 4, 1918, pp. 5-8.

² Principal architect of the British Office of Works.

In this case, the firm first of all approached some larger contractors who prepared a scheme for them. This scheme, unfortunately, was anything but good, and was very costly. Finally it was suggested that this department should safeguard Government funds by being responsible for the design and carrying out of the scheme, which has been done, and the Aircraft Manufacturing Co. have greeted with enthusiasm the idea that the scheme should be a model one, of a very high standard of design and construction, particularly in view of the fact that even with the high standard being followed the scheme will cost many thousands of pounds less than the one originally prepared for them by a contractor.

In carrying out the scheme, this department has taken into consideration the view of the Government that the standard should be set by the Government departments so as to lead the opinion of local councils and private firms with regard to what can be done in the way of provision of housing for the working classes.

This scheme has also had to be designed to overcome the many stringencies in connection with the supply of both labor and material which exist in the fourth year of this great war.

SITE.

The site is suburban, but rural in its general characteristics, and was chosen to be outside the main line of traffic following the Edgware Road, Hendon, London.

It is situated about 600 yards west of this road. Two existing by-roads form the boundaries at the east and west sides, which are known as Stag Lane and Bacon Lane, respectively. Stag Lane may, at some future date, become an important road, and on the block plan allowance has been made by setting back the houses for any future widening. Bacon Lane has, to a less extent, been treated in a similar manner.

At Edgware Road, traveling facilities to all parts already exist.

The site is fairly level, but has distinctive features in the way of trees, high hedges, etc.

LAYOUT.

The dominant features for guidance in the layout were two main hedges running lengthways, and almost parallel, about 120 yards apart. Both these hedges contain a number of very fine trees, and these trees are accurately shown on the layout plan. The roads were designed therefore more or less to follow the lines of these hedges, which dictated the plan and offered an opportunity to give full value to the fine rows of trees. A clump of trees with old hedges cutting in at right angles was made a nucleus around which a green has been formed, and facing one side of this green is the inn.

ROADS.

The site has been opened up by one main road connecting Stag Lane and Bacon Lane. A short distance off Stag Lane a second longitudinal road branches off. At this junction a block of two shops has been placed and these shops form the vista from the entrance to the estate from Stag Lane.

Another block of four shops is planned in the center of the Stag Lane frontage. This second road soon turns in a large sweep, leaving the green on one side, and then runs parallel with the main road. A minor cross road connects these two roads at the west end.

Opposite the green an access road opens up the depth of land between the green and Stag Lane, continuing as a footpath and forming a short cut from this part of the site.

Provision has been made, should it be found desirable at some future date, to connect a cross road to the adjoining land on both the north and south sides of the present scheme.

The road planning has secured a repeated change of vista. Central features are emphasized. Prominent features still fill the ends of the road, and the contour of the roads prevents a monotonous length of view.

The setting back and bringing forward of the building line breaks still more the chance of unpleasant uniformity and what is still more important, there are practically no open views of back gardens.

It is claimed that the whole of the ground has been effectively opened up with a minimum of road making.

The roads themselves are narrow but the distances between houses are considerable. This reduces the heavy cost of road making and yet does not affect the open and "garden-city" effect of the scheme.

The costly item of curbing to roads has been avoided, except at the corners, the footpaths generally being edged with turf.

The houses are all set back from the carriage road in varying degrees and where breaks have been considered necessary or desirable they have been made in an economical manner in a rectangular form, and large gaps are avoided.

GARDENS.

The gardens in front of the houses will be fenced only on the frontage of Stag Lane, and all gardens will be turfed in with the turf which has been taken up from the sites of the houses.

The back gardens have been planned of a uniform area, but at the same time it has been realized that some tenants will want more ground than others.

It will be noted that the main road and its parallel road on the southern side leave a greater depth of ground at the back than would

be required for single houses and this fact gave the opportunity for planning a number of flats fronting on these roads.

The gardens of the flats are divided in such a manner that the occupants of the flats on the upper floors can have separate access to their gardens—a very desirable feature.

The fences for the back gardens will be formed of quick-growing hedges, and this avoids the common post and wire fences or rough picket fences which generally quickly become unsightly.

NUMBER OF HOUSES, AREA OF LAND, ROADS, ETC.

It will be seen that a spacious appearance has been maintained throughout the whole scheme.

The following are the number of houses, area of land, roads etc.:

	Acres.	Acres.
Site area		23.72
Road area	2.33	
Area of open spaces .....	.69	
Total open area		3.02
Net area available for houses		20.70

The total number of houses on the estate is 250, and in addition there are 6 shops, 1 doctor's house, and an inn, making a total of accommodation for 258 families. This works out about 12 houses to the acre, which contrasts very favorably with the private suburban housing scheme, where it is common to find 26 houses to the acre.

It will be observed that with judicious planning a very much more spacious appearance has been obtained.

As far as possible, the houses have been grouped in blocks not exceeding four. It should be noticed that by planning houses in blocks of four it avoids the necessity of separate access to the middle houses of the block either by tunnel or extra garden paths. By crossing the garden of each external house the ashes and refuse of the two central houses is collected at the same time. This is a practical arrangement and works well and also prevents the possibility of any annoyance by making the paths at the backs of the houses too public.

STANDARDIZATION.

The layout exhibits an application of standardization of plan and type; sufficient repetition for economy but not sufficient for monotony. The same plan and type is disguised by variation of external building material.

The type of accommodation provided for this village was based on an exhaustive inquiry held among the workers who are to live in the houses.

Eventually four different types of accommodation were decided upon, as follows:

Type A.—Fifty-seven houses, which contain living room, parlor, and scullery on the ground floor and three bedrooms, bathroom, and water-closet on the second floor.

Type B.—Fifty-three houses containing living room, parlor, and scullery on the ground floor, two bedrooms, bathroom, and water-closet on the second floor.

Type C.—Forty houses each containing living room, scullery, and water-closet on the ground floor and three bedrooms on the second floor.

Types D and E.—Flats, each containing living room, scullery, water-closet, and two bedrooms. Types D and E form 100 flats. Both types contain the same accommodation, with this one difference, that the planning was rearranged on those blocks which faced north in order that the living room should have a southern aspect in addition to the northern.

The following schedule shows areas of the houses and the rooms of each type in superficial feet:

Items.	Type A.	Type B.	Type C.	Type D.	Type E.
	<i>Ft. in.</i>	<i>Ft. in.</i>	<i>Ft. in.</i>	<i>Ft. in.</i>	<i>Ft. in.</i>
Area covered.....	496 0	441 9	417 0	759 3	702 9
Living room.....	168 0	162 6	186 0	183 9	170 6
Parlor.....	112 6	104 0			
Bedroom 1.....	176 9	168 0	139 0	136 6	132 3
Bedroom 2.....	88 0	118 0	99 9	123 6	120 9
Bedroom 3.....	66 6		65 3		

SPECIAL FEATURES.

The plans aim at being straightforward and compact, and the above schedule is self-explanatory. There are, however, some salient features which might be emphasized.

Cross ventilation.—Wherever possible the principal rooms have been provided with cross ventilation.

Orientation.—In practically no case does any room entirely face north. Where, however, this has been unavoidable in the bedrooms, oriel windows have been introduced in order to insure a measure of sunlight. There is at least some sunlight in every room. Types D and E have already been referred to in this respect.

Gas cookers.—All of the houses and tenements have been provided with gas cookers in the scullery. In addition, some of the houses have been provided with a cooking range in the living room and the remainder with slow combustion sitting-room grate.

Glazed dressers.—Glazed dressers are placed in the living room. Food cupboards with ventilating gratings are accessible from the scullery and living room.

Cupboards.—In types A and B additional cupboard space is available under the stairs and a cupboard in the living room in type C is additional to the floor areas given above.

Two tiers of shelving are provided to each scullery. The scullery with tradesmen's door has been arranged to simplify work. Fitments are in a convenient position and space is provided for a mangle. A coal cupboard for 1 ton of coal adjoins the scullery. Where the bath is placed in the scullery it is fitted with a table top which is hinged.

Both type C and the tenements where the water-closets are on the ground floor are entered from the covered lobby leading from the scullery, and in the latter case the same lobby forms the entrance to the coal bins. This lobby in the second floor flats also takes the dustbin.

At least one bedroom is fitted with one good-sized cupboard.

Entrances.—A point worthy of notice in regard to the planning of the flats is that the ground-floor flats have each a separate entrance, and the second-floor flats have a common entrance on the ground floor leading to the staircase terminating in a landing at which the entrance to the second-floor flats opens.

Hot-water arrangements.—Each house and flat is provided with hot water to the bath and scullery sink, by means of gas-heated circulators placed in the scullery. Each of these circulators is provided with a thermostat, thus affording an opportunity to regulate the amount of the hot-water supply.

CONSTRUCTION.

Walls.—The external walls are built of 9-inch brickwork where they are plastered, slate or tile hung. Those blocks with facing bricks are built of two $4\frac{1}{2}$ -inch walls with a cavity. The internal structural walls of $4\frac{1}{2}$ -inch brickwork, the remaining internal partitions are of coke breeze slabs.

First floors.—The ground floors are of 4-inch cement concrete laid on 4-inch hard core, finished with jointless impermeable flooring, except the sculleries which are finished in cement containing hematite, and the lobbies which are finished in tiles.

Second floors.—The second floors are constructed of hollow terra-cotta blocks, finished in a similar manner to the ground floors with jointless flooring. The adoption of a standardized plan has enabled the second floors to be laid in standardized types. The thickness of this second floor reduces the whole by at least one course of brickwork or increases the height of the rooms. These floors have the additional advantage of being fireproof and thus reduce the insurance rate.

Roofs.—The roofs are of simple construction and of good proportion, cutting being avoided. Some of the blocks of houses have the roofs sprung at a height of 5 feet 3 inches above the second-floor level, thus effecting an economy in brickwork. Roof boarding is eliminated, except where the roof forms a portion of the ceiling. A large majority of the roofs are covered with slate, the remainder with tile. Asphalt takes the place of lead wherever possible.

Joinery.—The standardization of the joinery has effected a saving. All sashes are of one pattern, and the windows differ only as regards the number of sashes in the width. Doors are likewise standardized, and thus the window and door openings can quite easily be set out on a universal plan saving much labor.

Inside finishings.—Inside finishings are of plaster, except the sculleries, offices, staircases to flats, which are left in fair-faced brickwork limewhited. Walls generally will be distempered. The joinery with few exceptions will be treated with brown or green solignum requiring little upkeep.

DRAINAGE AND WATER SERVICES.

The planning and grouping of the houses have been carried out with a strict view to economy as regards drainage and water services.

Combined drainage has been adopted, thus reducing to a minimum the runs of the soil and rain-water drains, and also the number of manholes and connections to main sewers.

In the water services iron pipes have been used, except the $\frac{3}{4}$ -inch main lead supply, which has had to be executed in lead owing to the local circumstances.

The houses will be fitted up with appropriately arranged gas fittings.

CONCLUSION.

In carrying out this scheme, every advantage has been taken of the knowledge possessed by the department of the housing problem, while the utilization of material has been such as to cause no serious scarcity of any key materials required for the prosecution of the war.

The standard of accommodation was set after consultation with the employees of the firm themselves, and the principles of planning and design have followed the latest ideas at the disposal of the Government with regard to the method of dealing with this great question.

HOUSING NOTES FROM GREAT BRITAIN.

FAILURE OF PRIVATE ENTERPRISE.

According to Sir Frank Baines, principal architect of the Office of Works, Great Britain, the failure of private enterprise in supplying

sufficient and adequate housing accommodations for the working people has been due to the following causes:

(1) The increased cost of construction during late years without a corresponding increase in rents.

(2) The stringent by-laws of the local authority particularly in respect to widths of roads.

(3) The cost of sites. (It is stated that at Hull the action of land speculators had increased the price of land from £50 [\$243.33] to £1,000 [\$4,866.50] an acre).

(4) Increase in the rate of interest and of rates, and latterly—

(5) The increment duty. Speculating builders have found that it pays them better to put up villa residences, more profitable ground rents being thus obtained.

The cost of construction and the rate of interest will no doubt continue high for some time after the conclusion of the war, and this will necessarily check private enterprise.

CENTRALIZED HOUSING POLICY.

Concerning the drift in housing policy on the part of the British Government Sir Frank Baines, of the Office of Works, writes as follows:

Generally the position throughout the country has been that the various Government departments concerned with war services have dealt with their own housing problems individually without reference to a central authority. This has occasioned considerable criticism in this country, and has resulted in a variation of standard which has detrimentally affected the whole question of housing.

So far as it is possible to summarize the opinion which is solidifying slowly in this country, it is tending toward the centralization of the whole question of housing into the hands of one single authority, in the hope that that authority will deal with the problem in accordance with the whole of the information at the disposal of the country, and will unify its methods so as to set the general standard applicable over the whole area of the country where housing accommodations must of necessity be provided.

Further, the general opinion at the present time is that the variation in the accommodation which has been provided for meeting the exigencies of the war, in the form of semipermanent and temporary accommodation, is wasteful. As a result of the war the shortage of houses for the industrial classes is very grave, and had the housing requirements for war workers been provided throughout in permanent construction this would have gone some way toward dealing with the whole question of housing for the working classes which has to be faced by the British Government after the war. The temporary accommodation has been found to give little, if any, satisfaction to the workers who have to occupy it. Its cost has been high, and the accommodation will certainly have to be scrapped upon the termination of the war or very soon after.

ADMINISTRATION OF THE WOOLWICH (WELL HALL, KENT) GOVERNMENT HOUSING SCHEME.

Accounts of the Woolwich housing scheme undertaken by the British Government for the accommodation of munition workers employed in the arsenal at that place may be found in the MONTHLY

REVIEW for December, 1917 (pp. 225-228), and in the June issue, 1918 (pp. 205, 206). Certain points of interest in the administration of the estate are presented in this connection.

The estate, as previously noted, supplies 1,298 dwellings on an area of 96 acres. The houses for the most part are of permanent brick construction. The completion of the estate from the time of the selection of the site occupied nine and one-half months, notwithstanding numerous difficulties involved as regards labor and material due to the war and to the high pressure of work in the neighborhood, resulting in a large percentage of overtime and other expenses.

The estate is administered on behalf of the Office of Works by the housing department of the London County Council for a commission of $4\frac{1}{2}$ per cent on gross rental without allowance for unoccupied houses. The managing staff on the site consists of a housing superintendent with a clerical staff of 2 and a maintenance staff of 12 employees. The maintenance staff nominally consists of 20 but owing to the shortage of labor the full number of men can not be obtained for the work. The housing superintendent is in sole charge of the estate and is responsible for the accounts, collection of rents, repairs, maintenance of parks and open spaces, lawns and grass plots in front of the houses. The salary is £3 (\$14.60) per week plus 16 shillings (\$3.89) per week war bonus and a house is provided for him on the estate but no allowance is made for lighting and heating. The superintendent is chosen for his ability and questions of politics do not enter into the selection.

In the administration of the estate certain regulations have been prepared by the London County Council. A copy of these is as follows:

CONDITIONS OF TENANCY.

1. Each tenant on taking possession will be supplied with one key of each lock in the tenement, and two of the entrance door.
2. The rent shall be paid in advance to the collector who will call for it.
3. No tenant shall underlet or take in lodgers without the express authority in writing of the housing manager being first obtained, or use a tenement as a shop or a workshop, or expose any goods or materials for sale or hire therein, or assign this agreement.
4. The back gardens of the tenements shall be the only drying ground, and tenants shall not hang from their windows, or in any way expose to public view, any washing or any unsightly objects whatever.
5. Tenants shall not erect any structure whatever in the gardens without having first obtained the housing manager's consent.
6. Refuse must not be thrown from the windows or doors, but must be deposited in a dust bin which will be supplied for the purpose. The bins will be emptied periodically by the borough council.
7. Tenants must pay the cost of replacing any windows broken in their tenements during their tenancy, and of repairing any damage to the rooms other than that arising

from ordinary wear and tear; they must also pay the cost of replacing keys lost. If on vacation the tenement shall be found to be in a dirty condition requiring special cleansing the tenant shall pay the cost of such cleansing.

8. Tenants must maintain their houses in a cleanly state and their front gardens in a good condition to the satisfaction of the housing manager.

9. Tenants shall immediately report to the housing manager, through the superintendent, any case of infectious disease in their tenements. Tenants shall cause any case of infectious disease to be removed to the proper hospital without delay.

10. The council shall be at liberty, by its agents or workmen, to enter any tenement to inspect the state of repair, or for any other purpose, at all reasonable hours of the day.

11. Nails are not to be driven into the walls. In rooms where no picture rails are provided hooks of an approved pattern are to be used. These can be obtained from the superintendent upon payment.

12. The council may determine any tenancy by giving to the tenant a week's notice signed by the housing manager. In case of breach by the tenant of any of these regulations, the housing manager may determine the tenancy summarily at any time.

13. Any tenant wishing to vacate his tenement shall give seven days' clear notice in writing to the housing manager, through the superintendent; such notice to expire and the tenant to give possession on a Monday.

14. The sum of 5 shillings is to be paid by the tenant on entering on the tenancy, and shall be applied by the council in or toward the cost of replacing any keys not forthcoming on the termination of the tenancy, or toward rent in arrear, or toward the cost of repairing any damage, or toward any other expense payable by the tenant under the above conditions, and subject thereto is to be repaid to the tenant on the determination of the tenancy.

NOTE.—The weekly rent is inclusive of rates, taxes, and water rate.

EMPLOYMENT AND UNEMPLOYMENT.

READJUSTMENT OF ADMINISTRATIVE FUNCTIONS OF UNITED STATES EMPLOYMENT SERVICE.

In order to bring about closer contact between the office of the Director General of the United States Employment Service and the Federal directors of employment in the several States, and to establish that uniformity of operation of the branch offices which is so essential to efficiency and speed, and at the same time to reduce to a minimum opportunities for error, irresponsible or improper management, and jurisdictional conflict, a realignment or readjustment of the existing administrative machinery of the United States Employment Service has been effected. This has involved the abolition of the system of 13 employment districts and the gradual elimination of the district superintendencies, the centering of responsibility for the field organization upon the Federal directors of employment for the States, the institution of uniform methods of office operation, and the organization of the administrative work at Washington into five divisions each in charge of a director. In short, the new plan has been adopted to make more effective the original aim of the Service for centralization of administration at Washington and decentralization of operation with the State as the unit. The functions of the five divisions which have been created are as follows:

Control division.—Preparation of all general and special orders; supervision of the field organization attached directly to the administrative offices; mails and files; general correspondence; reports from the Federal directors for the States and research and statistical work; property and supplies for the administrative offices and the field organization; auditing and supervision of expenditures and accounts.

Field organization division.—Creation and perfection of an efficient system of employment offices in each State; organization of the State advisory boards and community labor boards; supervision of the work of the Public Service Reserve and Boys' Working Reserve (wherever possible merging these with the Employment Service organization in each State); obtaining proper facilities for women's and farm-labor departments in local offices (these to be under the direction of the local superintendents and the organization work to be carried out through the Federal directors); creation of special faculties or departments for such other classes of workers as may need specialized handling.

Clearance division.—Distribution of requests for labor among the States according to their proper share of workers to be furnished; reports concerning the supply of the demand for workers (this information to be redistributed to the Federal directors); reference of orders for help from employers to the Federal directors for the States in which they originate and reference of orders from Federal directors to other localities

as necessary (together with full information regarding all important matters relating to the transfer of workers); arrangement of transportation details prior to giving information to the Federal directors.

Personnel division.—Appointments and personnel records (involving handling of employment for the administrative offices, investigating requests for help from divisions of the administrative offices, investigating applicants for employment with the United States Employment Service, maintaining individual records of all employees of the Employment Service, and assisting the Federal directors for States in getting help); developing plans for and supervising the training of employees of the United States Employment Service; developing a classification of occupations and promoting the use of uniform terminology in the Employment Service offices; developing standard tests and supervising their use in the placement work of the Employment Service.

Information division.—Publication of the United States Employment Service Bulletin and other organs of the Employment Service, and supervision and control of all news matter originating within the administrative offices of the Employment Service.

WORK OF THE COMMUNITY LABOR BOARDS.

The community labor boards¹ of the Employment Service, which are being organized in each State, numbered 915, according to reports received down to the end of August from 39 States, the greatest number (166) being reported from Texas. These boards, organized in industrial centers, are composed of one representative each of employers and of workers and the local employment director, and are commissioned to decide all questions concerning recruiting and distribution of labor within certain prescribed boundaries. The question of jurisdiction of the District of Columbia community labor board having been challenged, the Employment Service issued the following statement which applies equally to similar boards throughout the country:

The community labor boards have supervision over the recruiting and distribution of labor in their communities and the transfer of men for war work from industries which are not directly connected with the prosecution of the war. The actual operation of recruiting, distribution, and transfer is conducted by the local offices and agents of the Employment Service.

The United States Employment Service counts upon the voluntary cooperation of employers and employees to carry out its plans and to secure men needed for war work from nonwar work. It will not call upon the War Industries Board to use compulsion through control of fuel, materials, and transportation unless obliged to do so.

The power to determine priority among industries and to close up nonessential industries by shutting off supplies rests with the War Industries Board.

The United States Employment Service will follow the priorities determined by the Priorities Board of the War Industries Board. The Employment Service, through all its agencies, will keep in systematic and constant cooperation with the other divisions of the Government concerned with the manpower and material program of the Government.

It is within the province of each community labor board to list those nonwar industries in its community which will first be called upon to contribute men to war work.

¹ Noted in the MONTHLY LABOR REVIEW for August, 1918, pp. 64 and 65.

This does not mean that such industries will be compelled to close up or to discharge their male employees at once, but that, with as much fairness as is possible and with as much speed as may be necessary to meet the national emergency, they will release male workers.

In the District of Columbia as elsewhere we may as well face the facts. The work on the great Army and Navy buildings at Potomac Park, the construction of housing facilities opposite Union Station, the extension of Camp Humphries to meet new Army requirements, and much other work essential to our war program are being seriously retarded by lack of unskilled labor. In this situation it is obviously wrong to have able-bodied men continuing to sell candy, cigars, and like articles, to be doing work in shops and stores which might, with reasonable effort on the part of the employers, be intrusted to women, and to be dancing attendance in clubs, barber shops, soft-drink establishments, bowling alleys, dancing academies, and elsewhere.

Our war industries are suffering severely for lack of skilled mechanics. It therefore becomes a burden upon the conscience of every person who employs a chauffeur to determine whether such employment is necessary or merely for the gratification of personal pleasure.

Moreover, every owner of an automobile should realize that every time he spends \$5 for automobile accessories, supplies, or repairs he is in effect determining whether working energies of the country equivalent to about a day's labor of one man shall be devoted to winning the war or to his own personal uses.

The time has come when, from the standpoint of conservation of labor, we must all of us limit our expenses to those things which are essential.

PLACEMENT OF FARM LABOR BY THE EMPLOYMENT SERVICE.

Complete statistics of placements of the Nation's farms by the Employment Service indicate a total of 106,860 permanent farm workers sent to positions during the six months ending July 30, 1918. This total does not include the army of harvesters handled by the Employment Service in the drive through the western wheat belt, or several hundred thousand boys placed through the Boys' Working Reserve of the Department of Labor, or thousands of part-time community workers brought out by the Employment Service in cooperation with other Federal and local organizations. The number of applications turned in by farmers was 175,733, exceeding the number of placement by 68,873. The 13 States in which the largest numbers of placements were made, with the per cent of totals, are presented in the following table:

NUMBER AND PER CENT OF PLACEMENTS OF PERMANENT FARM WORKERS DURING SIX MONTHS ENDING JULY 30, 1918, BY STATES.

State.	Number.	Per cent.	State.	Number.	Per cent.
California.....	15,741	18.0	North Dakota.....	1,896	2.2
Idaho.....	2,224	2.5	Oklahoma.....	3,731	4.3
Illinois.....	20,593	23.6	South Dakota.....	2,256	2.6
Iowa.....	7,238	8.3	Texas.....	8,775	10.1
Kansas.....	9,661	11.1	Washington.....	5,859	6.7
Missouri.....	4,066	4.7			
Montana.....	2,183	2.5	Total.....	87,266	100.0
Nebraska.....	3,043	3.5			

In this connection should be noted the marked success with which the Employment Service handled the labor situation in harvesting operations in the Western wheat States. All the workers needed for this purpose were provided from within the States themselves, the Employment Service furnishing more than 18,000 men, or over half of the total number of emergency farm workers needed. That the harvest should have been accomplished entirely by local effort at a time when the farm labor supply throughout the States concerned was seriously depleted is proof of what organization and local enterprise can accomplish. Team work by the county agricultural agents and farm help specialists of the Department of Agriculture and the harvest emergency force of the Employment Service is largely responsible for the results achieved. Generally the agents of the Department of Agriculture busied themselves with ascertaining the needs of individual farmers, while the Employment Service confined itself to finding and supplying the men to fill these needs. The movement received the support of farmers' organizations, chambers of commerce, banks, employers' and labor organizations, and local committees of the State councils of defense. By agreement between the Department of Labor and the Canadian Government portions of the harvest workers went across the border into the western Canada wheat fields.

TRANSFER OF WORKERS BY THE EMPLOYMENT SERVICE.

As indicating one phase of the operation of the Employment Service, announcement is made that during the month of August, the first month of control of unskilled labor recruiting for war work by the United States Employment Service, as prescribed in a statement by the President on June 17, 1918,¹ between 50,000 and 60,000 such workers were recruited and moved from States having a surplus of common laborers in war work to other States in which there were Government projects short of labor. These movements were handled through the Federal directors of employment for the States on authorization from the Director General at Washington, and in the process labor was not taken from farms or other war work. Several hundred common laborers were brought from the Bahama Islands to be used on Government work, and as soon as ships are available several thousand Porto Rico laborers will be imported.

EMPLOYMENT SERVICE PLACES WOMEN IN NEW OCCUPATIONS.

Records of the Employment Service show that women are entering a number of occupations heretofore considered suitable only for men, such as railroad tank painting, hardware industry processes,

¹See MONTHLY LABOR REVIEW for July, 1918, pp. 136, 137.

garage management, and ranch work. Processes in the hardware industries include the work of screw-machine hands, spot welders, gas welders, dip braziers, and drill-press and bench work. Requests have been received for baggage porters, ushers, aircraft part assemblers, telegraph operators, photographers, and a stock and bond saleswoman for a large corporation. Most of the calls, however, are for domestics, of which there appears to be a nation-wide shortage, and for women who are highly skilled industrial workers.

EMPLOYMENT OFFICES COORDINATION ACT IN CANADA.

An act of the Canadian Parliament, assented to May 24, 1918, provides for a system of coordination of the provincial employment offices, quite similar to that being established at the present time in the United States. The minister of labor is authorized and empowered (a) to aid and encourage the organization and coordination of employment offices and to promote uniformity of methods among them; (b) to establish one or more clearing houses for the interchange of information between employment offices concerning the transfer of labor and other matters; and (c) to compile and distribute information received from employment offices and from other sources, regarding prevailing conditions of employment. The measure closely resembles our Federal system of providing for vocational education, in that a central fund is appropriated from which allotments are to be made to the different Provinces for the purpose of maintaining provincial employment offices, the amount in no case to exceed one-half that expended for the same purpose by the Province receiving the allotment. An initial sum of \$50,000 is set aside for the fiscal year beginning April 1, 1918, and of \$100,000 for the succeeding year; the regular continuing appropriation is fixed at \$150,000. Payment of allotments is conditioned upon agreement between the Minister of Labor and the provincial authorities. Conditions of operation, to be incorporated in any such agreement, are (a) that the offices shall endeavor to fill situations in all trades and for both male and female employees; and (b) that the offices shall make such reports and submit to such inspection as the minister may require. The minister of labor is required to submit to Parliament annual reports of expenses and work done by the various Provinces.

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 August, 1918, and in cases where figures are available, for the corresponding month in

1917. Figures are given from 140 public employment offices in 32 States and the District of Columbia—Federal employment offices in 16 States and the District of Columbia, Federal-State employment offices in 12 States, Federal-State-county-municipal employment office in 2 States, Federal-State-municipal employment offices in 5 States, a Federal-county employment office in 1 State, Federal-municipal employment offices in 3 States, State employment offices in 6 States, and a municipal employment office in 1 State. Figures from 2 Canadian employment offices are also given.

Numerous changes have been made in the administration of the employment offices. Therefore if any bureau is wrongly classified, it is due to the fact that the local office failed to report the change. In some cities the Federal and State offices have been consolidated, and in such cases, if the 1917 figures for each office are available, they have been combined.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 1917 AND 1918.

UNITED STATES.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Aug. 1917.	Aug. 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
<i>Alabama.</i>												
Anniston (Fed.).....		(1)		274		2 178		(1)		164		149
Birmingham (Fed.).....		392		2,566		2 2,795		(1)		2,499		2,200
Mobile (Fed.).....		233		4,574	2 10	2 914		(1)		883		839
Tuscaloosa (Fed.).....						2 49		(1)		34		34
Total.....										3,580		3,222
<i>Arizona.</i>												
Prescott (Fed.).....						2 17		(1)				
Yuma (Fed.-Sta.-Co.- Mun.).....		99		181		165		23		148		95
Total.....										148		95
<i>Arkansas.</i>												
Pine Bluff (Fed.).....		197		11,187		2 1,542		(2)		1,117		1,073
<i>California.</i>												
Alturas (Fed.).....		(1)		(1)		(1)		(1)		(1)		24
Chico (Fed. Sta.).....		(1)		(1)		(1)		(1)		(1)		704
Eureka (Fed.-Sta.).....		(1)		(1)		(1)		(1)		(1)		237
Fresno (Sta.).....	379	564	1,245	1,330	669	1,047	(1)	(1)	765	1,366	646	1,321
Los Angeles (Fed.- Sta.-Mun. ³).....	4,704	6,107	8,417	9,596	3,670	4,256	(1)	(1)	7,588	8,678	6,639	7,661
Marysville (Fed.-Sta.).....		(1)		(1)		(1)		(1)		(1)		607
Modesto (Fed.-Co.).....		202		371		250		175		371		371
New Castle (Fed.-Sta.).....		(1)		(1)		(1)		(1)		(1)		73
Oakland (Sta.).....	1,472	2,379	2,620	5,629	967	3,070	(1)	(1)	1,930	4,395	1,390	3,955
Redding (Fed.-Sta.).....		(1)		(1)		(1)		(1)		(1)		56

¹ Not reported.² Number applying for work.³ Combined 1917 figures for Federal and State offices.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 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.	
	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
California—Concluded.												
Sacramento (Fed.-Sta.)	629	745	2,006	2,306	1,199	1,334	(1)	(1)	1,606	1,848	1,430	1,599
San Francisco (Sta.)	3,140	4,015	6,259	8,855	3,630	(1)	1,980	(1)	5,790	7,316	4,610	5,977
San Joe (Fed.-Sta.)		996		1,589		696		(1)		1,473		1,159
Willows (Fed.-Sta.)		(1)		(1)		(1)		(1)		(1)		137
Total									17,679	25,447	14,715	23,891
Connecticut.												
Bridgeport (Sta.)	(1)	(1)	789	797	2 938	2 920	(1)	(1)	(1)	(1)	717	672
Hartford (Sta.)	(1)	(1)	1,096	1,195	21,464	21,189	(1)	(1)	(1)	(1)	838	828
New Haven (Sta.)	(1)	(1)	905	752	21,018	2 745	(1)	(1)	(1)	(1)	759	601
Norwich (Sta.)	(1)	(1)	256	337	2 293	2 368	(1)	(1)	(1)	(1)	241	331
Waterbury (Sta.)	(1)	(1)	147	259	2 262	2 281	(1)	(1)	(1)	(1)	127	215
Total									(1)	(1)	2,682	2,647
District of Columbia.												
Washington (Fed.)	147	1,018	2,354	8,413	2 737	27,684	(1)	(1)	611	7,535	518	6,951
Florida.												
Tampa (Fed.)		0		0		21,193		(1)		799		799
Georgia.												
Atlanta (Fed.-Sta.)		271		3,257		22,364		(1)		2,075		1,529
Macon (Fed.)		30		468		214		22		215		198
Total										2,290		1,727
Illinois.												
Aurora (Fed.-Sta.)		266		788		575		144		648		427
Bloomington (Fed.-Sta.)		207		304		2 264		(1)		242		162
Cairo (Fed.-Sta.)		62		721		821		1		817		677
Chicago (Fed.-Sta.)	5,238	13,274	21,538	72,506	15,903	34,783	(1)	5,447	16,228	43,296	13,402	25,132
Danville (Fed.-Sta.)		314		457		2 311		(1)		230		163
Decatur (Fed.-Sta.)		109		424		296		99		320		204
East St. Louis (Fed.-Sta.)	832	946	1,194	1,737	586	564	649	639	1,207	1,181	1,088	1,146
Elgin (Fed.)		144		453		2 236		(1)		159		123
Freeport (Fed.)		48		190		2 111		(1)		44		20
Galesburg (Fed.)		99		471		2 241		(1)		156		80
Joliet (Fed.-Sta.)		303		728		592		(1)		609		493
Kankakee (Fed.)		38		208		2 103		(1)		90		32
La Salle (Fed.)		118		3,426		2 709		(1)		709		483
Peoria (Fed.-Sta.)	888	1,056	1,805	3,186	355	406	801	910	1,143	1,302	1,136	1,253
Quincy (Fed.)		189		2,112		2 487		(1)		481		333
Rockford (Fed.-Sta.)	737	802	1,368	1,869	724	1,092	212	173	816	1,188	748	1,145
Rock Island-Moline (Fed.-Sta.)	672	1,276	1,521	5,711	690	1,102	366	843	952	1,921	857	1,826
Springfield (Fed.-Sta.)	502	516	784	1,123	395	378	392	419	666	759	558	557
Waukegan (Fed.)		19		509		2 442		(1)		406		183
Total									21,012	54,558	17,789	34,439

¹ Not reported.² Number applying for work.³ Combined 1917 figures for Federal and State offices.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 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.	
	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	New registrations.		Renewals.		Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
<i>Iowa.</i>												
Cedar Rapids (Fed.-Sta.).....		305		783		626		208		804		615
Council Bluffs (Fed.-Sta.).....		192		924		1 788		(2)		765		694
Davenport (Fed.-Sta.).....		359		1,885		1,054		252		1,285		1,009
Des Moines (Fed.-Sta.-Co.-Mun.).....	65	1,254	390	3,117	200	2,484	25	526	211	3,032	169	2,630
Mason City (Fed.-Sta.).....		154		705		469		39		487		443
Ottumwa (Fed.-Sta.).....		200		747		1 510		(2)		510		479
Sioux City No. 1 (Fed.-Sta.).....		748		9,844		2,300		26		1,294		1,230
Sioux City No. 2 (Fed.-Sta.).....		89		378		493		27		547		488
Waterloo (Fed.-Sta.).....		456		952		276		80		618		493
Total.....									211	9,342	169	8,081
<i>Kansas.</i>												
Topeka (Fed.-Sta.).....	180	234	200	1,176	1 60	(2)	(2)	(2)	48	333	43	268
<i>Kentucky.</i>												
Louisville (Sta.).....	196	125	166	104	1 210	1 135	(2)	(2)	166	104	166	104
<i>Louisiana.</i>												
New Orleans (Fed.-Sta.-Mun.).....	64	53	295	7,251	360	11,445	(2)	(2)	421	2,714	208	2,322
Shreveport (Fed.-Mun.).....		54		1,356		363		35		365		340
Total.....									421	3,079	208	2,662
<i>Massachusetts.</i>												
Boston (Fed.-Sta.) ³	2,199	2,044	4,304	2,798	1 3,215	1 1,713	(2)	(2)	4 4,806	4 3,705	2,263	1,637
Springfield (Fed.-Sta.).....	1,046	1,235	1,605	2,172	1 796	1 999	(2)	(2)	4 1,911	4 2,100	1,179	1,342
Worcester (Fed.-Sta.).....	994	1,070	1,191	1,634	1 532	1 746	(2)	(2)	4 1,327	4 1,682	717	948
Total.....									8,044	7,487	4,159	3,927
<i>Michigan.</i>												
Battle Creek (Sta.).....	224	85	402	634	1 402	237	(2)	131	402	368	402	368
Bay City (Sta.).....	48	28	179	165	1 126	68	(2)	15	100	72	97	72
Detroit (Fed.-Sta.) ³	804	1,114	6,187	6,351	1 6,310	5,182	(2)	119	6,073	6,351	6,050	5,278
Flint (Sta.).....	615	122	1,769	192	1 929	168	(2)	43	923	199	884	178
Grand Rapids (Sta.).....	786	350	1,040	1,040	954	575	(2)	119	986	631	941	594
Jackson (Sta.).....	663	306	590	568	486	296	(2)	156	571	425	576	409
Kalamazoo (Sta.).....	452	318	699	398	1 746	352	(2)	53	728	376	503	340
Lansing (Sta.).....	108	106	365	188	1 426	116	(2)	20	411	117	411	109
Muskegon (Sta.).....	51	39	272	333	226	122	(2)	21	275	113	270	82
Saginaw (Sta.).....	127	96	734	445	1 479	165	(2)	47	479	212	479	212
Total.....									10,948	8,864	10,613	7,642
<i>Minnesota.</i>												
Minneapolis (Sta.).....	(2)	1,325	5,016	1,721	1 4,421	1 1,530	(2)	(2)	4,193	1,528	3,137	1,438
<i>Missouri.</i>												
Hannibal (Fed.-Sta.).....		21		286		125		4		88		27

¹ Number applying for work.² Not reported.³ Combined 1917 figures for Federal and State offices.⁴ Number of offers of positions.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
<i>Nebraska.</i>												
Lincoln (Fed.-Sta.).....		452		1,077		11,021		(²)		946		745
Omaha (Fed.-Sta.- Mun.).....	968	900	6,484	7,807	875	4,428	422	614	1,163	4,623	923	4,118
Total.....									1,163	5,569	923	4,863
<i>Nevada.</i>												
Gardnerville (Fed.).....		38		47		1,39		(²)		30		30
Reno (Fed.).....	107	197	670	422	1,599	1,447	(²)	(²)	477	392	453	315
Total.....									477	422	453	345
<i>New Jersey.</i>												
Jersey City (Fed.-Sta.- Mun.).....		329		22,953		11,372		(²)		1,224		1,164
Orange (Fed.-Sta.- Mun.).....		515		1,593		299		341		759		707
Total.....										1,983		1,871
<i>New Mexico.</i>												
Albuquerque (Fed.).....		177		1,438		1,203		(²)		261		309
<i>New York.</i>												
Albany (Fed.-Sta.).....	(²)	(²)	948	2,272	565	839	273	290	955	1,105	598	628
Buffalo (Fed.-Sta.).....	(²)	(²)	1,861	5,994	1,365	1,972	119	181	2,229	2,003	1,591	1,751
New York (Fed.-Sta.)..	(²)	(²)	2,738	75,587	1,275	40,604	759	764	2,728	40,345	1,736	21,755
Rochester (Fed.-Sta.)..	(²)	(²)	2,305	4,730	1,224	2,030	566	817	2,159	3,118	1,390	1,519
Syracuse (Fed.-Sta.)...	(²)	(²)	1,812	2,256	880	1,229	194	342	1,564	1,698	1,208	1,039
Total.....									9,635	49,269	6,523	26,692
<i>North Dakota.</i>												
Grand Forks (Fed.).....		4		1,439		(²)		(²)		751		(²)
<i>Ohio.</i>												
Akron (Sta.-Mun.).....	(²)	(²)	3,493	3,665	1,435	1,347	1,853	1,775	2,439	2,881	2,065	2,414
Athens (Sta.-Mun.).....	(²)	(²)	119	5	102	4	49	4	86	6	68	6
Canton (Sta.-Mun.).....	(²)	(²)	687	847	680	763	196	204	509	756	308	514
Chillicothe (Sta.-Mun.)..	(²)	(²)	12,311	615	12,558	374	5	343	11,993	570	11,970	504
Cincinnati (Sta.-Mun.)..	(²)	(²)	2,516	6,045	4,782	4,096	3,167	2,420	2,289	4,402	1,639	3,597
Cleveland (Sta.-Mun.)..	(²)	(²)	8,516	15,242	3,292	8,185	8,031	6,571	7,238	12,580	6,217	10,825
Columbus (Sta.-Mun.)..	(²)	(²)	3,598	6,488	1,185	3,165	2,874	3,745	3,214	5,509	2,519	4,854
Dayton (Sta.-Mun.).....	(²)	(²)	1,876	6,761	1,025	2,629	1,605	2,007	1,541	4,021	1,285	3,794
Hamilton (Sta.-Mun.)..	(²)	(²)	165	239	242	134	42	32	92	163	74	129
Lima (Fed.-Sta.-Mun.)..	(²)	(²)	599	1,277	647	428	108	245	374	652	323	574
Mansfield (Sta.-Mun.)..	(²)	(²)	139	1,275	235	293	85	131	174	401	124	379
Marietta (Sta.-Mun.)...	(²)	(²)	319	228	243	171	101	101	222	241	174	153
Marion (Sta.-Mun.).....	(²)	(²)	350	592	422	516	152	165	322	561	206	486
Portsmouth (Sta.-Mun.)..	(²)	(²)	399	1,992	913	904	60	575	322	1,414	217	759
Sandusky (Sta.-Mun.)..	(²)	(²)	255	775	56	270	12	86	56	315	32	260
Springfield (Sta.-Mun.)..	(²)	(²)	270	768	507	481	281	298	275	556	148	380
Steubenville (Sta.-Mun.)..	(²)	(²)	678	922	489	510	377	286	648	752	530	476
Tiffin (Sta.-Mun.).....	(²)	(²)	248	462	300	398	149	83	218	459	158	390
Toledo (Sta.-Mun.).....	(²)	(²)	4,298	15,441	2,155	5,891	3,160	2,578	3,775	7,641	3,168	5,998
Washington C. H. (Sta.-Mun.).....	(²)	(²)	360	629	277	554	131	62	336	571	308	533
Youngstown (Sta.-Mun.)..	(²)	(²)	2,081	2,449	1,374	1,394	1,379	1,106	2,080	2,094	1,750	1,943
Zanesville (Sta.-Mun.)..	(²)	(²)	174	181	351	236	128	136	191	181	120	161
Total.....									38,344	46,727	34,403	39,099

¹ Number applying for work.² Not reported.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 1917 AND 1918—Continued.

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.					
	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
<i>Oklahoma.</i>												
Ardmore (Fed.-Sta.).....		3		(1)		2 488		(1)		488		3 390
Bartlesville (Fed.-Sta.).....		62		324		206		3		102		108
Chickasha (Fed.-Sta.).....		20		318		385		2		331		318
Enid (Fed.-Sta.).....	154	155	240	485	2 225	2 427	(1)	(1)	209	361	192	253
McAlester (Fed.-Sta.).....		64		280		2 545		(1)		520		60
Muskogee (Fed.-Sta.).....	355	143	584	331	2 386	2 538	(1)	(1)	370	382	311	173
Shawnee (Fed.-Sta.).....		15		(1)		18		(1)		50		40
Tulsa (Fed.-Sta.).....	788	400	1,826	1,740	2 1,364	2,055	(1)	(1)	1,234	1,085	1,179	885
Total.....									1,813	3,319	1,682	2,227
<i>Pennsylvania.</i>												
Connellsville (Fed.).....		15		958		2 48		(1)		32		8
Pittsburgh (Fed.).....	45	1,470	1,655	37,397	213	8,209	(1)	(1)	315	8,403	189	8,018
Total.....									315	8,435	189	8,026
<i>Rhode Island.</i>												
Providence (Sta.).....	226	184	382	318	324	303	139	48	(1)	318	382	318
<i>South Carolina.</i>												
Greenville (Fed.).....		70		915		2 396		(1)		281		197
<i>South Dakota.</i>												
Aberdeen (Fed.).....		140		257		2 171		(1)		109		105
Rapid City (Fed.).....		51		119		2 66		(1)		59		45
Total.....										168		150
<i>Tennessee.</i>												
Nashville (Fed.).....		362		12,518		2 8,567		(1)		8,186		7,909
<i>Texas.</i>												
Beaumont (Fed.-Mun.).....		83		1,183		572		83		389		312
Orange (Fed.).....		212		1,938		1,626		120		1,527		1,281
Waco (Fed.-Sta.).....		18		1,079		2 607		(1)		572		546
Total.....										2,488		2,139
<i>Washington.</i>												
Bellingham (Fed.-Mun.).....	153	112	366	207	2 329	2 224	(1)	(1)	284	142	254	127
Everett (Fed.).....	6	15	375	281	2 525	2 77	(1)	(1)	357	45	347	30
Everett (Mun.).....	(1)	369	(1)	(1)	(1)	(1)	(1)	(1)	(1)	284	366	188
Spokane (Mun.).....	1,960	1,642	2,460	2,096	(1)	(1)	(1)	(1)	2,375	2,041	2,279	1,924
Tacoma (Fed.-Mun.).....	954	553	2,850	7,476	(1)	2 4,410	(1)	(1)	1,654	4,410	911	4,125
Walla Walla (Fed.).....	515	382	575	776	2 480	2 601	(1)	(1)	365	519	320	456
Total.....									5,035	7,441	4,477	6,850
<i>Wyoming.</i>												
Casper (Fed.).....		29		29		2 29		(1)		29		26
Cheyenne (Fed.).....		202		2,388		709		51		733		548
Rook Springs (Fed.).....				494		2 17		(1)		17		10
Sheridan (Fed.).....		32		312		2 117		(1)		117		84
Total.....										896		668
Grand total.....									120,165	262,813	103,231	200,656

1 Not reported.

2 Number applying for work.

3 August record not complete.

OPERATIONS OF PUBLIC-EMPLOYMENT OFFICES, AUGUST, 1917 AND 1918—Concluded.

CANADA.

Province, 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.					
	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.	Aug., 1917.	Aug., 1918.
Quebec.												
Montreal (provincial)...	308	250	770	620	391	1 297	(2)	(2)	561	287	470	233
Quebec (provincial)....	66	312	363	133	1 293	1 133	(2)	(2)	203	124	154	107
Total.....									764	411	624	340

¹ Number applying for work.² Not reported.REPORT OF EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM
(GREAT BRITAIN AND IRELAND) FOR FIVE WEEKS ENDING JULY 12,
1918.

As reported by the British Labor Gazette for August, 1918, the total number of work people remaining on the registers of the 389 British employment offices on July 12, 1918, was 99,505 compared with 107,978 on June 7, 1918. These figures comprise workers in professional, commercial, and clerical, as well as industrial occupations.

The operations of the employment exchanges for the five weeks are summarized as follows:

	Men.	Women.	Boys.	Girls.	Total.
On registers June 7, 1918.....	30,966	60,925	7,941	8,146	107,978
Number of individuals registered during period.....	115,796	149,364	26,093	22,644	313,897
Total.....	146,762	210,289	34,034	30,790	421,875
Reregistrations during period.....	3,947	5,804	708	522	10,981
On registers July 12, 1918.....	30,661	53,949	7,574	7,321	99,505
Vacancies notified during period.....	101,437	89,883	16,150	13,457	223,927
Vacancies filled during period.....	71,561	75,266	12,876	10,057	169,750
Applicants placed in other districts.....	22,528	18,725	1,755	1,593	44,601

The average daily number of registrations and of vacancies notified and vacancies filled during the month were 10,829, 7,464, and 5,658, respectively.

	Average daily registra- tions.			Average daily vacancies notified.			Average daily vacancies filled.		
	5 weeks ending July 12, 1918.	Increase (+) or decrease (-) on a—		5 weeks ending July 12, 1918.	Increase (+) or decrease (-) on a—		5 weeks ending July 12, 1918.	Increase (+) or decrease (-) on a—	
		Month ago.	Year ago.		Month ago.	Year ago.		Month ago.	Year ago.
Men.....	3,992	- 70	+ 682	3,481	+ 4	+ 812	2,385	- 90	+ 510
Women.....	5,172	-103	- 403	2,996	+102	+ 416	2,509	+141	+ 316
Boys.....	893	- 2	+ 69	538	+ 32	+ 62	429	+ 17	+ 44
Girls.....	772	- 27	-108	449	+ 1	+ 23	355	- 3	- 16
Total.....	10,829	-202	+240	7,464	+139	+1,313	5,658	+ 65	+854

Compared with a month ago, the daily average of registrations, vacancies notified and vacancies filled, showed a percentage decrease of 1.8 and increases of 1.9, and 1.2, respectively. Compared with a year ago, registrations, vacancies notified and vacancies filled showed percentage increases of 2.3, 21.3, and 17.8, respectively.

The table following shows, by occupational groups, the number of individuals registered, the vacancies notified, and the vacancies filled, indicating the extent of unemployment in Great Britain during the five weeks ending July 12, 1918:

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN THE FIVE WEEKS ENDING JULY 12, 1918 (GENERAL REGISTER).

Occupation groups.	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies notified during period.		Vacancies filled during period.		Vacancies notified during period.		Vacancies filled during period.	
	Men.	Wom-en.	Men.	Wom-en.	Men.	Wom-en.	Boys.	Girls.	Boys.	Girls.
A.—INSURED TRADES.										
Building.....	20,511	1,138	18,203	1,485	12,255	1,287	465	77	360	70
Works of construction.....	11,734	24	14,348	67	13,043	69	52	.....	57	.....
Sawmilling.....	1,181	1,430	1,326	533	681	491	393	116	353	93
Shipbuilding.....	5,970	494	5,510	329	4,351	294	465	9	400	2
Engineering.....	30,763	29,734	30,116	20,798	20,914	19,418	4,964	1,195	4,214	1,019
Construction of vehicles.....	909	596	801	785	556	748	103	11	85	3
Cabinet making, etc.....	391	206	295	104	86	66	103	51	95	31
Miscellaneous metal trades.....	2,291	2,573	4,361	2,148	2,009	1,882	633	599	488	492
Precious metals, etc.....	215	344	221	359	53	326	163	175	120	132
Bricks and cement.....	94	183	388	203	114	195	22	12	14	6
Chemicals, etc.....	1,098	1,198	1,158	1,069	746	915	183	279	151	249
Rubber and waterproof goods.....	227	1,007	286	1,294	200	924	50	51	43	60
Ammunition and explosives.....	5,023	38,740	2,737	15,535	2,279	15,926	806	969	802	859
Leather—excluding boots and shoes.....	198	628	167	382	58	383	79	176	66	139
Total, insured trades.....	80,608	78,295	79,917	45,095	57,345	42,924	8,481	3,720	7,278	3,155
B.—UNINSURED TRADES.										
Wood, furniture, fittings, etc.....	27	78	27	26	8	20	38	17	32	10
Domestic.....	1,744	23,526	1,900	21,761	827	14,111	591	2,048	381	1,076
Commercial and clerical.....	4,043	10,214	2,160	6,069	1,357	4,633	1,169	1,732	842	1,425
Conveyance of men, goods, etc.....	10,193	3,369	7,876	1,925	4,947	1,479	3,133	1,344	2,177	913
Agriculture.....	2,009	3,951	2,035	2,765	795	2,528	192	131	145	83
Mining and quarrying.....	618	47	580	38	290	30	33	2	31	1
Brushes, brooms, etc.....	12	28	7	21	8	19	18	55	14	39
Pottery and glass.....	97	334	156	127	62	86	141	60	107	27
Paper, prints, books, and stationery.....	197	638	314	486	93	361	215	447	163	347
Textile.....	714	2,372	923	1,717	352	1,217	341	575	253	387
Dress.....	350	2,669	296	1,849	111	1,305	90	813	57	611
Boots and shoes.....	217	276	296	221	136	135	98	124	61	80
Food, tobacco, drink, and lodging.....	368	3,086	682	3,683	241	3,022	286	757	220	596
General laborers.....	12,986	14,264	5,249	1,360	3,948	1,273	930	446	796	385
Shop assistants.....	388	2,491	377	913	81	466	152	707	104	473
Government, defense, and professional.....	1,046	3,551	972	1,586	556	1,448	213	473	187	436
All others.....	179	175	670	235	404	196	29	24	28	13
Total, uninsured trades.....	35,188	71,069	24,520	44,788	14,216	39,332	7,669	9,737	5,598	6,902
Grand total, all trades.....	115,796	149,364	104,437	89,883	71,561	75,256	16,150	13,457	12,876	10,057

¹ Occupations are grouped according to the industry with which they are mainly connected and applicants are registered according to the "work desired" by them.

This table shows that during the period in the insured trades 158,903 adults registered for work—80,608 men and 78,295 women. There were 137,213 vacancies reported—79,917 men and 45,095 women, 8,481 boys and 3,720 girls. The number of positions filled was 110,702—57,345 men, 42,924 women, 7,278 boys, and 3,155 girls. The occupational groups in which the largest number of positions was filled by adults were: Engineering, 40,332; ammunition and explosives, 18,205; building, 13,542; and works of construction, 13,112.

In the uninsured trades there were 106,257 registrations—35,188 men and 71,069 women. The number of vacancies reported was 86,714—24,520 men, 44,788 women, 7,669 boys, and 9,737 girls. The total number of positions filled was 59,048—14,216 men, 32,332 women, 5,598 boys, and 6,902 girls. The occupational groups in the uninsured trades in which the largest number of positions was filled by adults were: Domestic, 14,938; conveyance of men, goods, etc., 6,426; and commercial and clerical, 5,990.

The total number of positions filled by adults in both the insured and uninsured trades during the five weeks ending July 12, 1918, as compared with the preceding month, shows an increase of 31.8 per cent. The increase in the number of positions filled by men was 25.7 per cent; by women, 38.2 per cent. The largest number of both men and women were employed in engineering.

No comparison can be made of the number of registrations in the employment exchanges of Great Britain with the number of applications for work reported by the employment offices of the United States owing to the differences in method of registering applicants. It is possible, however, to make a comparison of positions filled by the offices in the two countries. The figures show the following result:

	Number of offices.	Positions filled.		
		Total.	Average per day.	Average per day, each office.
Great Britain.....	38	163,750	5,658	15
United States.....	18	216,919	8,673	48

EMPLOYMENT IN SELECTED INDUSTRIES IN AUGUST, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in August, 1918, from representative manufacturing establishments in 13 industries. The figures for August of this year, when compared with those from identical establishments for August, 1917, show increases in the number of people employed in 8 industries and decreases in 5. Car building and repairing shows the largest increase—19.3 per cent—while leather

manufacturing and paper making show percentage increases of 6.6 and 5.8, respectively. The greatest decrease—7.9 per cent—appears in silk.

Each of the industries show an increase in the total amount of the pay roll for August, 1918, as compared with August, 1917. A marked increase in car building and repairing—107.3 per cent—is shown, which is largely due to the wage increases as provided in the General Order No. 27 of the Director General of Railroads. Increases of 43.2 and 42 per cent appear in leather manufacturing and paper making, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN AUGUST, 1917, AND AUGUST, 1918.

Industry.	Establishments reporting for August, both years.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (—).	Amount of pay roll in—		Per cent of increase (+) or decrease (—).
			August, 1917.	August, 1918.		August, 1917.	August, 1918.	
Automobile manufacturing.	46	1 week..	118,477	119,004	+ 0.4	\$2,553,961	\$3,208,572	+ 25.6
Boots and shoes.	68	..do....	51,580	51,281	— .6	715,449	899,641	+ 25.7
Car building and repairing.	29	1 month.	34,175	40,786	+19.3	1,240,439	2,571,064	+107.3
Cigar manufacturing.	56	1 week..	17,950	18,123	+ 1.0	216,181	240,867	+ 11.4
Men's ready-made clothing.	38	..do....	26,790	25,953	— 3.1	440,562	492,330	+ 11.8
Cotton finishing.	15	..do....	8,768	9,155	+ 4.4	124,192	168,484	+ 35.7
Cotton manufacturing.	54	..do....	52,331	51,037	— 2.5	583,275	818,218	+ 40.3
Hosiery and underwear.	57	..do....	29,911	30,686	+ 2.6	329,032	439,474	+ 33.6
Iron and steel.	90	1 month.	180,060	179,577	— .3	8,229,109	11,156,860	+ 35.6
Leather manufacturing.	34	1 week..	17,369	18,507	+ 6.6	273,867	392,060	+ 43.2
Paper making.	49	..do....	22,937	24,275	+ 5.8	369,018	524,023	+ 42.0
Silk.	42	2 weeks..	18,115	16,679	— 7.9	429,932	512,590	+ 19.2
Woolen.	47	1 week..	42,300	42,791	+ 1.2	616,815	871,497	+ 41.3

The table below shows the number of persons actually working on the last full day of the reported pay period in August, 1917, and August, 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 AUGUST, 1917, AND AUGUST, 1918.

Industry.	Establishments reporting for August, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in August—		Per cent of increase (+) or decrease (—).
			1917	1918	
Automobile manufacturing.	28	1 week....	88,631	81,748	— 7.8
Boots and shoes.	17	..do....	6,333	6,924	+ 9.3
Car building and repairing.	28	1 month....	28,881	35,786	+23.9
Cigar manufacturing.	16	1 week....	3,260	3,186	— 2.3
Men's ready-made clothing.	7	..do....	11,293	10,320	— 8.6
Cotton finishing.	12	..do....	6,270	6,811	+ 8.6
Cotton manufacturing.	35	..do....	26,557	25,861	— 2.6
Hosiery and underwear.	15	..do....	11,239	10,954	— 2.5
Iron and steel.	80	1 month....	130,426	131,541	+ .9
Leather manufacturing.	18	1 week....	12,479	14,145	+13.4
Paper making.	15	..do....	5,882	7,015	+19.3
Silk.	25	2 weeks....	12,754	11,771	— 7.7
Woolen.	38	1 week....	34,494	35,128	+ 1.8

In comparing the reports of the same industries for August, 1918, with those for July, 1918, four show an increase in the number of persons on the pay roll and nine a decrease. The largest increase—4.9 per cent—is shown in car building and repairing, while the largest decrease—3.8 per cent—appears in men's ready-made clothing.

Seven of the 13 industries reporting show increases and six decreases in the total amount of the pay roll in August, 1918, when compared with July, 1918. A large increase of 22.3 per cent appears in car building and repairing, which is due, mainly to the wage increase granted in railroad shops. Other percentage increases of 11.4, 7.8, and 7.1 are shown in iron and steel, woolen and paper making, respectively. Men's ready-made clothing and cotton finishing show percentage decreases of 5.4 and 4.6, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JULY, 1918, AND AUGUST, 1918.

Industry	Estab- lish- ments report- ing for July and August.	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 (-).
			July, 1918.	August, 1918.		July, 1918.	August, 1918.	
Automobile manufacturing.	44	1 week..	119,523	115,685	-3.2	2,978,009	3,108,310	+ 4.4
Boots and shoes.....	69	..do....	53,409	52,692	-1.3	937,356	924,671	- 1.4
Car building and repairing.	27	½ month.	34,596	36,209	+4.9	1,898,273	2,322,261	+22.3
Cigar manufacturing.....	56	1 week..	18,935	18,246	-3.6	278,067	242,086	-12.9
Men's ready-made clothing.	37	..do....	26,632	25,614	-3.8	516,505	488,678	- 5.4
Cotton finishing.....	15	..do....	9,387	9,155	-2.5	176,692	168,484	- 4.6
Cotton manufacturing.....	55	..do....	51,405	51,492	+ .2	836,674	823,323	- 1.6
Hosiery and underwear....	57	..do....	30,744	30,413	-1.1	444,828	435,185	- 2.2
Iron and steel.....	98	½ month.	177,591	178,127	+ .3	9,920,156	11,046,663	+11.4
Leather manufacturing.....	34	1 week..	18,726	18,507	-1.2	387,531	392,060	+ 1.2
Paper making.....	48	..do....	23,085	23,209	+ .5	465,663	498,600	+ 7.1
Silk.....	40	2 weeks..	13,023	12,743	-2.2	362,778	367,285	+ 1.2
Woolen.....	46	1 week..	42,624	42,213	-1.0	799,146	861,152	+ 7.8

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 July, 1918, and August, 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 OPERATIONS IN JULY, 1918, AND AUGUST, 1918.

Industry.	Establishments reporting for July and August.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (—).
			July, 1918.	August, 1918.	
Automobile manufacturing.....	28	1 week.....	82,744	79,681	-3.8
Boots and shoes.....	16	..do.....	6,756	7,002	+3.6
Car building and repairing.....	25	$\frac{1}{2}$ month.....	30,247	31,467	+4.0
Cigar manufacturing.....	17	1 week.....	3,483	3,453	-.9
Men's ready-made clothing.....	7	..do.....	10,349	10,229	-1.2
Cotton finishing.....	12	..do.....	7,537	7,066	-6.3
Cotton manufacturing.....	35	..do.....	26,152	25,488	-2.5
Hosiery and underwear.....	23	..do.....	13,755	13,221	-3.9
Iron and steel.....	77	$\frac{1}{2}$ month.....	139,917	137,760	-1.5
Leather manufacturing.....	18	1 week.....	13,465	13,455	-.1
Paper making.....	16	..do.....	7,130	7,421	+4.1
Silk.....	26	2 weeks.....	9,121	8,790	-3.5
Woolen.....	38	1 week.....	34,517	34,895	+1.1

CHANGES IN WAGE RATES.

During the period July 15 to August 15, 1918, there were establishments in each of the 13 industries which reported increases in wage rates, and in one—boots and shoes—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 12 per cent was granted to about 16 per cent of the force in one plant. Approximately 56 per cent of the force in one establishment received an increase of about 12 per cent. Two firms reported a 10-per-cent increase, affecting the entire force in one, and 5 per cent of the force in the other. All employees in one establishment were given an increase of about 5 per cent. In one plant the individual rates were increased 3.87 per cent, while in another the average rate per hour was increased 0.0058 cent. An increase was granted to all employees by one firm, but no information was given as to the amount of the increase. One concern paid a bonus and another granted an increase, but both failed to give any further data.

Boots and shoes.—One establishment reported about a 20-per-cent increase to practically all of the employees. A 10-per-cent increase was granted in seven establishments, affecting the entire force in three plants, all except the foremen in two, 91 per cent of the force in one, and 76 per cent of all employees in the seventh. Practically all of the employees in one factory were granted an increase of about 7 per cent. In two establishments 5 per cent increases were reported, affecting all except the cutters in one, while the other failed to state the number affected. Practically the entire force received about a 3-per-cent increase in one factory. Decreases of approximately 6 per cent and

4 per cent were reported by two companies, which affected practically all of the employees in both establishments.

Car building and repairing.—Further increases were granted by the railroads as per supplement No. 4 to the General Order No. 27. which was published in the LABOR REVIEW for September 1, 1918 (pp. 131 to 134). The new rates are retroactive to January 1, 1918, and beginning August 1, 1918, the eight-hour day shall prevail with time and one-half for overtime, Sunday work, and seven specified holidays.

Cigar manufacturing.—An increase of 20 per cent was granted to the entire force in two factories. Four establishments reported 10 per cent increases, affecting the entire force in one plant, practically all in one, about 86 per cent in one, and 75 per cent in the fourth plant. Another firm gave about a 10 per cent increase to all cigar makers.

Men's ready-made clothing.—One establishment gave a 10 per cent increase to about 76 per cent of the force and a 15 per cent increase to 6½ per cent of all of the employees, while another firm granted increases of one, two, and three dollars to cutters. An increase was reported by one shop, but no further data was given.

Cotton finishing.—One plant reported an increase of 10 per cent to about 92 per cent of the force.

Cotton manufacturing.—An increase of 16⅔ per cent was given to about 65 per cent of the force in one mill. One plant reported an average increase of 12¼ per cent to all employees. Two establishments gave a 10 per cent increase—one, to all employees with an additional increase to equalize the wage scale in certain departments, while the other granted the increase to about 8 per cent of the force; and another mill reported an increase of about 10 per cent to the entire force. A 10 per cent bonus was granted by three mills, affecting all the full-time workers in two, while the number affected in the third mill was not reported. The entire force in two factories received a 5 per cent increase. One plant gave an increase to the shop force, and another establishment reported a slight increase, but neither made any statement as to the proportion of the force affected.

Hosiery and underwear.—Two plants granted an increase of 20 per cent to the entire force, while another establishment gave a 16⅔ per cent increase to all of the employees. A 10 per cent increase was reported by one mill, which failed to give any information concerning the number affected. About 14 per cent of force in one establishment and 5 per cent in another plant were given increases of about 10 per cent. An increase was reported by one factory, but no further data was given.

Iron and steel.—One plant granted an increase of 20 per cent, affecting 65 per cent of the men, and also time and a half for all hours in excess of 8, affecting 50 per cent of the force. An in-

crease of 19.6 per cent was given to all of the employees in one plant and 19.23 per cent, affecting about all of the employees, was granted in another establishment. An average of 13 per cent increase was given to all of the employees in two mills, about 25 per cent of the force in three mills, and about 20 per cent of the force in one mill. Increases ranging from 10.7 to 12.1 per cent were granted in five mills, which affected the entire force in one establishment, approximately all of the employees in three plants, and 92 per cent of the force in the fifth mill. A 10 per cent increase was made by 38 establishments, this affecting all of the employees in 17 plants, approximately all in five, about 95 per cent in one, 90 per cent in one, 85 per cent in one, about 80 per cent in two, from about 44 to 55 per cent in six plants, about 35 per cent in one, and 25 per cent in another, while three plants failed to state the number receiving the increase. Three firms granted an increase of approximately 10 per cent, affecting the entire force in one plant, approximately all of the employees in another, and about 90 per cent in the third plant. An increase of 9.83 per cent was given to about 10 per cent of the employees in one factory. One company granted an 8 per cent increase and another reported an increase of 5 per cent, but both failed to give the number affected. In one plant the 55 per cent bonus, being paid to all employees with a base rate of $17\frac{1}{2}$ cents an hour or less, was increased to 65 per cent. All of the mechanics, turn men, and laborers in one establishment received increases of 30, 40, and 20 cents a day, respectively; a flat increase of $3\frac{1}{2}$ cents an hour on all rates was granted in one mill and 3 cents an hour was given to all men working on an hourly basis in another mill.

Leather manufacturing.—The entire force in one plant received a bonus of 10 per cent, while in two other establishments increases of about 10 per cent were granted to 25 per cent of the employees in one, and 20 per cent of all of the men in the other. About 10 per cent of the entire force in one factory received a 5 per cent increase, and approximately 10 per cent of those employed in another factory received a 4 per cent advance in wages. One concern granted increases of 3, 4, 5, and 9 per cent to about $8\frac{1}{2}$, 21, 6, and 12 per cent of the force, respectively. The wages of 20 per cent of the employees in one plant were raised \$2 per week, and an increase of \$1 per week was granted to 20 per cent of the force in the same establishment.

Paper making.—An increase of approximately 25 per cent with an additional bonus of 25 per cent to all employees was reported by one firm; and one mill granted an increase of 25 per cent, but failed to give the number receiving the increase. An increase of 15 per cent was given to all employees in two plants. Two establishments reported a 10 per cent increase, affecting 15 per cent of the force in one, and all except the office force and salaried foremen in the other.

All of the employees in one plant were granted an increase of about 10 per cent, while another firm gave an increase of approximately 10 per cent to 40 per cent of the force. An average increase of 3 cents per hour was received by all of the employees in one establishment, and another concern gave an increase of 50 cents per day, but did not state the number affected. One establishment reported an increase of 20 cents per day to the entire force, except to a few men whose salaries were advanced 30 cents per day and a few women whose wages were raised 25 cents per day. One plant reported an increase but failed to give any further data.

Silk.—About 8 per cent of the entire force in one plant received increases of from 20 to 50 per cent. One plant reported an increase of approximately 15 per cent to the entire force. Five firms reported increases of 10 per cent, affecting all of the employees in three mills, 10 per cent of the force in one, while no data was given as to the number affected in the fifth mill. An increase of 7 per cent to 25 per cent of the number employed was reported by one factory. The wages of the entire force in one establishment were advanced 6 per cent. An increase of 5 per cent was granted to 25 per cent of the force in one mill, and an increase of approximately 5 per cent was given to 12 per cent of the number of the employees in another factory. About 60 per cent of the employees in one establishment received an increase of 4 per cent. Practically the entire force in one plant were given an advance of 2 to 4 cents an hour.

Woolen.—One plant reported an average increase of $7\frac{1}{2}$ per cent to the entire force.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JULY, 1918.

The following figures as to the condition of employment in Great Britain and Ireland in July, 1918, as compared with June, 1918, and July, 1917, have been compiled from figures appearing in the British Labor Gazette of August, 1918. Similar information for April was published in the July review.

In comparing July, 1918, with June, 1918, as to the numbers employed, a few slight increases are shown, while the largest decreases—15.3 per cent, 10.6 per cent, and 6.6 per cent—appear in seamen, wholesale mantle, costume, blouse, etc. (Glasgow), and in dressmaking and millinery.

Comparing July, 1918, with July, 1917, relative to the number of employees, an increase of 7.6 per cent and decreases of 14.5, 12.5, and 9 per cent appear in the carpet industry, cotton, dressmaking, and millinery, and bleaching, printing, dyeing, and finishing, respectively.

The aggregate earnings of employees in July, 1918, as compared with June, 1918, show an increase of 11.2 per cent in the jute industry and a decrease of 7.5 per cent in bleaching, printing, dyeing, and finishing.

More important changes relative to the earnings of employees are seen when comparing July, 1918, with July, 1917, nearly all of which are increases. The largest increases—35.6 per cent, 27.8 per cent, 25.5 per cent, and 25.1 per cent—are shown in tailoring, bookbinding, cement, and linen manufacturing.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JULY, 1918, COMPARED WITH JUNE, 1918, AND JULY, 1917.

[Compiled from figures in the Labor Gazette (London), August, 1918.]

In industries, on a basis of comparison.	Per cent of increase (+) or decrease (−) in July, 1918, as compared with—		In industries, on a basis of comparison.	Per cent of increase (+) or decrease (−) in July, 1918, as compared with—	
	June, 1918.	July, 1917.		June, 1918.	July, 1917.
Coal mining: Average number of days worked.....	− 3.1	+ 5.5	Other clothing trades:		
Iron mining: Average number of days worked.....	− .7	+ .2	Dressmaking and millinery—		
Quarrying: Average number of days worked.....	− 3.6	− .7	Number of employees.....	− 6.6	−12.5
Pig iron: Number of furnaces in blast.....	− 2.3	(¹)	Wholesale mantle, costume, blouse, etc.—		
Iron and steel works:			Number of employees—		
Number of employees.....	− .9	+ 1.8	London.....	− 2.7	− 4.3
Number of shifts worked.....	− 1.7	+ 1.1	Manchester.....	− 3.4	− 3.6
Engineering trades: Number of employees ²	+ .12	− .08	Glasgow.....	−10.6	+ 1.9
Shipbuilding trades: Number of employees ²	+ .02	+ .22	Corset trade: Number of employees.....	− 2.4	− 8.2
Tin-plate, steel, and galvanized sheet trades: Number of mills in operation.....	− .9	+ 7.9	Building and construction of works: Number of employees ²	(¹)	+ .27
Cotton trade:			Sawmilling and machining:		
Number of employees.....	− 1.2	−14.5	Number of employees ²	+ .04	+ 2.7
Earnings of employees.....	+ .4	− 1.4	Brick trade:		
Woolen trade:			Number of employees.....	− 2.5	− 4.9
Number of employees.....	− 1.5	− 5.5	Earnings of employees.....	+ 3.4	+18.9
Earnings of employees.....	− 1.3	+17.7	Cement trade:		
Worsted trade:			Number of employees.....	+ .2	+ 1.7
Number of employees.....	− 2.3	− 6.1	Earnings of employees.....	− 3.2	+25.5
Earnings of employees.....	− 1.4	+21.2	Paper, printing, and bookbinding trades:		
Hosiery trade:			Paper trades—		
Number of employees.....	− 1.3	− 3.6	Number of employees reported by trade-unions ²	+ .2	(¹)
Earnings of employees.....	+ 2.4	+17.4	Number of employees reported by employers.....	− .4	+ .9
Jute trade:			Earnings of employees reported by employers.....	− 1.5	+19.5
Number of employees.....	− .5	− 6.7	Printing trades—		
Earnings of employees.....	+11.2	+ 6.0	Number of employees reported by trade-unions ²	− .1	+ .3
Linen trade:			Number of employees reported by employers.....	− 1.1	− 2.9
Number of employees.....	− 2.2	− 2.4	Earnings of employees reported by employers.....	− 1.7	+24.0
Earnings of employees.....	− 1.1	+25.1	Bookbinding trades—		
Silk trade:			Number of employees reported by trade-unions ²	− .1	+ .2
Number of employees.....	− 1.6	− 2.8	Number of employees reported by employers.....	− 5.0	− 2.3
Earnings of employees.....	+ .7	+23.3	Earnings of employees reported by employers.....	− 4.9	+27.8
Carpet trade:			Pottery trade:		
Number of employees.....	− 1.4	+ 7.6	Number of employees.....	− 1.4	− 5.8
Earnings of employees.....	− .2	+10.2	Earnings of employees.....	− 3.4	+ 8.5
Lace trade:			Glass trades:		
Number of employees.....	− 1.5	− 6.9	Number of employees.....	− 2.8	− 4.6
Earnings of employees.....	− .2	+ 6.1	Earnings of employees.....	− 5.0	+11.3
Bleaching, printing, dyeing, and finishing:			Food preparation trades:		
Number of employees.....	− 3.2	− 9.0	Number of employees.....	− .9	− 4.1
Earnings of employees.....	− 7.5	− 2.1	Earnings of employees.....	− .1	+14.3
Boot and shoe trade:			Dock and riverside labor: Number of employees.....	− 3.8	− 4.9
Number of employees.....	− 1.9	− 7.6	Seamen: Number of employees.....	−15.3	− 2.5
Earnings of employees.....	− 1.3	+ 5.3			
Leather trades: Number of employees.....	(¹)	+ .8			
Tailoring trades:					
Number of employees.....	− 1.8	+ 1.1			
Earnings of employees.....	+ 4.8	+35.6			
Shirt and collar trade:					
Number of employees.....	− 3.0	− 4.4			
Earnings of employees.....	− .2	+15.9			

¹No change.

²Based on employment.

[1116]

CONCILIATION AND ARBITRATION.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, AUGUST 16 TO SEPTEMBER 15, 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 August 16, 1918, and September 15, 1918, in 238 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,
AUG. 16, 1918, TO SEPT. 15, 1918.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, slaughterhouse men, Armour & Co., Los Angeles, Cal.	28	57	Adjusted.
Threatened strike, Savage Mountain Fire Brick Co., Cumberland, Md.	50	100	Do.
Controversy, Parker & Topping Co., Brainerd, Minn.	75	55	Unable to adjust. Men working elsewhere.
Controversy, firemen, Kansas City, Kans.			Adjusted.
Controversy, electric linemen, Merchant's Shipyard, Bristol, Pa.	50	30	Do.
Controversy, shop employees, Denver & Salt Lake R. R.			Do.
Strike, smelter men, United Zinc Smelting Co., Moundsville, W. Va.	80	70	Adjusted prior to commissioner's arrival.
Controversy, Riverside Bridge Co., Wheeling, W. Va.	150		Pending.
Strike, tool makers and machinists, A. H. Peterson Mfg. Co., Milwaukee, Wis.	60	1,000	Referred to National War Labor Board.
Strike, carpenters, The Campbell Creek River Coal Co., Dana, W. Va.	14	400	Men refused to accept increase offered and said they were employed elsewhere.
Strike, street car men, Bloomington, Ill.	60	40	Adjusted.
Strike, express drivers, Bloomington, Ill.	12		Do.
Strike, laundry workers, Bloomington, Ill.			Pending.
Threatened strike, electrical workers, Eastern Pennsylvania Light & Power Co., Pottsville, Pa.	217		Adjusted.
Strike, street car men, Dubuque, Iowa.	140		Do.
Strike, street car men, Montgomery, Ala.	130		Do.
Walkout, boiler makers, blacksmiths, helpers, Standard Boiler & Iron Plate Co., Niles, Ohio.	53	100	Referred to National War Labor Board.
Controversy, National Car Coupler Co., Attica, Ind.	33	653	Do.
Controversy, Marinette & Menominee Paper Co., Marinette, Wis.	180	50	All men to be reinstated. No further examinations by Department of Justice to take place. Men satisfied.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, AUG. 16, 1918, TO SEPT. 15, 1918—Continued.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, waiters, Royale Restaurant, Chicago, Ill.....	28	40	Manager is considering closing restaurant on account of poor business.
Controversy, Simplex Mfg. Co., Richmond, Ind.....	130	.....	Adjusted.
Controversy, Western Gas Construction Co., Fort Wayne, Ind.	300	.....	Do.
Controversy, Fort Wayne Foundry Machine Co., Fort Wayne, Ind.	50	.....	Do.
Controversy, Fort Wayne Engineering Co., Fort Wayne, Ind.	50	.....	Do.
Strike, Adrian Furnace Co., Dubois, Pa.....	75	85	Men have returned to work pending investigation.
Controversy, Wayne Oil Tank & Pump Co., Fort Wayne, Ind.	400	.....	Adjusted.
Strike, teamsters, Chicago Motor Bus Co., Chicago, Ill.....	80	.....	Refuse to enter into any negotiations for settlement, so no settlement can be made.
Threatened strike, Bauer & Black Co. (case 1), Chicago, Ill..	1	20,000	Adjusted.
Strike, metal workers, Tascarello Bros., Brooklyn, N. Y....	40	.....	Do.
Threatened strike, machinists, San Antonio, Tex.: San Antonio Machine & Supply Co.....	.....	.....	Pending.
Alamo Iron Works.....	.....	.....	Do.
Threatened strike, boiler makers and helpers, Morrison Bros., Dubuque, Iowa.	200	50	Adjusted.
Threatened strike, iron, steel and tin workers, United Alloy Steel Corporation, Canton, Ohio.	1,500	1,200	Do.
Strike, waiters and cooks, Hotel Seor, Toledo, Ohio.....	21	8	Do.
Controversy, employees, Woodhouse-Grunbaum Furniture Co., Seattle, Wash.	20	100	Do.
Strike, pattern makers, Seattle, Wash.....	40	200	Pending.
1. Standard Pattern Works.	.....	.....	.....
2. Fraser's Pattern Works.	.....	.....	.....
3. Western Pattern Works.	.....	.....	.....
4. Seattle Pattern & Model Works.	.....	.....	.....
5. Eagle Pattern Works.	.....	.....	.....
Controversy, coal miners, Broadway Mining Co., Simmons, Ky.	1	65	Commissioner advised checkweighmen to institute action in county court.
Strike, plumbers and pipe fitters, Oberlin contractor, South Bend, Ind.	12	300	Adjusted.
Strike, dyers and helpers, Paterson, N. J.....	1,507	3,300	Do.
Threatened strike, Perkins Marine Lamp Corporation, Brooklyn, N. Y.	.....	.....	Pending.
Controversy, electrical workers, Los Angeles Gas Co., Los Angeles, Cal.	30	750	Adjusted.
Strike, machinists, Jos. Reid Gas Engine Co., Oil City, Pa.	80	170	Pending.
Strike, glass workers, Libby Glass Works, Toledo, Ohio....	700	500	Adjusted.
Threatened strike, bridge and structural-iron works, Toledo Bridge & Crane Co., Toledo, Ohio.	350	700	Pending.
Controversy, Union Carbide Co., Sault Ste. Marie, Mich....	800	.....	Referred to National War Labor Board.
Strike, laborers, McDougall Shipbuilding Co., Duluth, Minn.	50	1,700	Adjusted.
Strike, motion-picture operators, 156 theaters, Cleveland, Ohio.	.....	.....	Do.
Threatened strike, clay miners, 11 companies, St. Louis, Mo.	200	.....	Pending.
Strike, blacksmiths and helpers, limestone mills and quarries, Bedford, Ind.	46	200	Adjusted.
Strike, blacksmiths, Watertown Arsenal, Watertown, Mass.	.....	.....	Referred to National War Labor Board.
Controversy, molders and coremakers, American Clay & Machine Foundry, Willoughby, Ohio.	25	.....	Pending.
Controversy, molders and coremakers, Otis Steel Casting Co., Cleveland, Ohio.	100	1	Adjusted.
Controversy, street car men, Lexington, Ky.....	175	75	Pending.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, AUG. 16, 1913, TO SEPT. 15, 1913—Continued.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, firemen, Topeka, Kans.	75		Adjusted.
Threatened strike, machinists, Advance Manufacturing Co., Cleveland, Ohio.	1		Do.
Threatened strike, power house employees and contractors, Pittsburgh & W. Va. R. R., Pittsburgh, Pa.			Do.
Strike, West Virginia & Pittsburgh Coal Co., Locust Grove Mine No. 1, Colliers, W. Va.	275	40	Do.
Strike, woodworkers and carriage workers, Matthews Manufacturing Co., Milwaukee, Wis.	68	150	Do.
Controversy, blacksmiths, Brooklyn Navy Yard, Brooklyn, N. Y.			Questions at issue have been taken up by president of American Brotherhood of Blacksmiths.
Controversy, Matthews Engineering Co., Sandusky, Ohio.			No movement on part of employees. Decided to let matters rest until occasion arises.
Threatened strike, coopers, Vacuum Oil Co., Rochester, N. Y.	60	200	Adjusted.
Controversy, Commercial Solvents Corporation, Terra Haute, Ind.			Do.
Controversy, firemen, Newport, Ky.			Pending.
Threatened strike, machinists, Rockford, Ill.			Do.
Strike, stogie makers, Wheeling, W. Va.	1,000		Referred to National War Labor Board.
Controversy, telephone operators, Southwestern Bell Telephone Co., Kansas City, Kans.			Pending.
Strike, molders and coremakers, 7 shops, Marion, Ohio.			Do.
Lockout, machinists, Kokomo Steel & Wire Works, Kokomo, Ind.	23	1,200	Adjusted.
Strike, employees, Selden Motor & Vehicle Co., Rochester, N. Y.	275	94	Do.
Threatened strike, street railway employees, Lancaster, Pa.	130	250	No demands had been made by men except the right to organize which was conceded.
Strike, electrical workers, Baltimore & Ohio locomotive repair shop, Glenwood, Pa.	3	20	Adjusted.
Strike, steam fitters, Standard Engine Co., Pittsburgh, Pa.	4		Do.
Controversy, electricians, General Electric Co., Erie, Pa.	3	250	Do.
Strike, carpenters, Fabricated Ship Corp., Milwaukee, Wis.			Pending.
Threatened strike, molders, 10 shops, Williamsport, Pa.	350	700	Referred to National War Labor Board.
Threatened strike, fur, sheep, and leather workers, St. Paul, Minn.	400		Workers decided to compromise on part increase demanded, as strikes were bad for the country at present.
Strike, coopers, T. Johnson & Co., Chicago, Ill.	175		Adjusted.
Threatened strike, miners, Monterey Coal Co., West Monterey, Pa.	90		Do.
Threatened strike, machinists, Superior Machine Tool Co., Kokomo, Ind.	193	67	Do.
Controversy, hotel and restaurant employees, Boise, Idaho.	40	125	Do.
Controversy, street car men, Wilkes-Barre, Pa.			Pending.
Strike, Woonsocket Rubber Co., Alice Mill, Woonsocket, R. I.	1,700		Do.
Strike, employees, American National Co., Toledo, Ohio.	160	40	Adjusted.
Controversy, marine engineers, New Orleans, La.			Pending.
Controversy, pattern makers, Richmond, Ind.			Referred to National War Labor Board.
Controversy, machinists, G. & J. Co., Indianapolis, Ind.	11	1,100	Adjusted.
Controversy, Milford Iron Foundry, Milford, Mass.			Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, AUG. 16, 1918, TO SEPT. 15, 1918—Continued.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, American Federation of Musicians, Philadelphia, Pa.	.....	.....	Pending.
Strike, machinists, Richards Iron Works, Manitowoc, Wis.	35	50	Adjusted.
Controversy, Nitrate Plant Electrical Works, Toledo, Ohio.	.....	.....	Pending.
Controversy, waiters and waitresses, Dallas, Tex.	400	150	Adjusted.
Threatened strike, Chambersburg Engine Co., Chambersburg, Pa.	18	370	Referred to National War Labor Board.
Controversy, Manitowoc Foundry & Machine Co., Manitowoc, Wis.	30	.....	Adjusted.
Controversy, The Virginia & Rainy Lake Lumber Co., St. Paul, Minn.	300	450	No satisfactory settlement reached as to restoring men to their job.
Controversy, flour mill employees, New Ulm and Sleepy Eye, Minn.	.....	.....	Pending.
Controversy, telephone employees, Norfolk, Va.	500	.....	Adjusted.
Controversy, Southwestern Mechanical Co., Fort Worth, Tex.	400	30	Do.
Strike, molders, Howe Scale Co., Rutland, Vt.	350	700	Men are returning to work pending final settlement.
Controversy, Cleveland Stevedore Co., Cleveland, Ohio.	80	.....	Adjusted.
Threatened strike, Haskellite Plant, Ludington, Mich.	.....	.....	Do.
Strike, Maplewood Sales Co., Peoria, Ill., operates Maplewood Coal Mine, Bloomington, Ill.	100	.....	Referred to National War Labor Board.
Controversy, Denver Union Stockyards, Denver, Colo.	.....	.....	Pending.
Strike, structural-iron workers, Rochester, N. Y.	.....	.....	Do.
Threatened strike, Hull-Dillon Packing Co., Pittsburg, Kans.	6	.....	Adjusted.
Controversy, bookbinders and rulers, Pittsburgh, Pa.	200	600	Partly adjusted, serious trouble averted.
Controversy, bookbinders and commercial printers, Washington, D. C.	5	100	Adjusted.
Threatened strike, Hyde Windlass Co., Bath, Me.	.....	.....	Referred to National War Labor Board.
Strike, United States Rubber Co., Bristol, R. I.	.....	.....	Pending.
Strike, boiler makers, Traylor Engine Co., Allentown, Pa.	.....	.....	Do.
Threatened strike, trainmen, Eastern Pennsylvania Light & Power Co., Pottsville, Pa.	.....	.....	Do.
Controversy, pattern makers, McIntosh-Seymour Corp., Auburn, N. Y.	.....	.....	Referred to Emergency Fleet Corporation.
Controversy, molders and pattern makers, Bethlehem Steel Co., Sparrows Point, Md.	35	7,000	Employees request no further action be taken until further advice, as they have a petition pending.
Threatened strike, Midwest Engine Co., Indianapolis, Ind.	200	1,250	Pending.
Threatened strike, Haynes Automobile Co., Kokomo, Ind.	200	845	Adjusted.
Threatened strike, American Car & Foundry Co., Berwick, Pa.	400	1,000	Pending.
Controversy, G. W. Taylor Warehouse & Elevator Co., Fairport, Ohio.	.....	.....	Do.
Strike, Pacific Coast Steel Co., Seattle, Wash.	1,200	.....	Referred to National War Labor Board.
Strike, International Car Shop, Chicago, Ill.	225	75	Pending.
Strike, Haskell-Barker Car Co., Michigan City, Ind.	300	.....	Adjusted.
Strike, Foundrymen of American Locomotive Co., Schenectady, N. Y.	130	400	Do.
Strike, Warner-Klipstein Chemical Co., Charleston, W. Va.	55	350	Do.
Controversy, hod carriers, Joliet, Ill.	.....	.....	Pending.
Threatened strike, Bauer & Black Co., Chicago, Ill. (case 2).	60	1,200	Adjusted.
Controversy, Dallas, Tex.: Robinson Manufacturing Co.	.....	.....	Pending.
Dallas Pattern Works	.....	.....	Do.
Mosher Manufacturing Co.	.....	.....	Do.
Strike, flour and cereal mill workers, Tacoma, Wash.	300	350	Adjusted.
Controversy, Burger Boat Co., Manitowoc, Wis.	75	100	Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE
DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION,
AUG. 16, 1918, TO SEPT. 15, 1918—Continued.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, James Clark, jr., Elec. Co., Louisville, Ky.....			Pending.
Controversy, machinists, Grainger & Co., Louisville, Ky.....			Do.
Controversy, Voght Bros. Machine Co., Louisville, Ky.....			Do.
Controversy, street car men, Louisville, Ky.....	1,500		Agreement ar- ranged to secure better working hours.
Controversy, Sheboygan, Wis.: Badger Tannery Co.....			Pending.
American Hide & Leather Co.....			Do.
Controversy, Ott Grinder Co., Indianapolis, Ind.....	2	15	Do.
Controversy, Hastings & Scheons, pattern makers, Spring- field, Mass.....			Do.
Strike, theatrical crafts, Oklahoma City, Okla.....	75	150	Do.
Controversy, American Bridge Co., Gary, Ind.....	250		Do.
Lockout, upholsterers, Chicago, Ill.....	250		Do.
Threatened strike, street car men, Cincinnati, Ohio.....	2,169		Harmonious rela- tion between men and com- pany but wages so low, question was referred to National War Labor Board.
Threatened strike, Third Ave. R. R. Co., New York, N. Y.....			Pending.
Threatened strike, Gadsden Car Works, Gadsden, Ala.....			Do.
Controversy, fire fighters, Kansas City, Mo.....			Do.
Threatened strike, foundrymen, Erie, Pa.....	9	900	Do.
Strike, Allentown, Pa.: Heilman Boiler Works.....			Adjusted.
Allentown Boiler Works.....			Pending.
McDermott Eng. Co.....			Do.
McDermott Bros. Boiler Works.....			Do.
Controversy, Great Northern Tannery Co., Sault Ste. Marie, Mich.....	300		Do.
Threatened strike, Washington, D. C., at— New National Theater.....	29	47	Adjusted.
Gayety Theater.....	6	3	Do.
Poli's Theater.....	12	29	Do.
Cosmos Theater.....	4	23	Do.
Folly Theater.....	4	30	Do.
Lyceum Theater.....	4	2	Do.
B. F. Keith's Theater.....	7	56	Do.
Belasco Theater.....	16	48	Do.
Casino Theater.....	5	55	Do.
Controversy, Dean Steam Pump Co., Holyoke, Mass.....			Pending.
Controversy, Sharon, Pa.: Sharon Foundry Co.....			Referred to Na- tional War Labor Board.
Shenango Mach. Co.....			Do.
Turner-Frick Mach. Co.....			Do.
Strike, theatrical employees, Los Angeles, Cal.....	1,100	3,900	Adjusted.
Controversy, Steacy-Schmidt Co., York, Pa.....			Pending.
Threatened strike, Michigan United R. R., general office, Jackson, Mich.....			Adjusted prior to commissioner's arrival.
Threatened strike, butchers and meat cutters, Phoenix, Ariz. Strike, Rochester, N. Y.: Crowell-Lundoff-Little Co. and Fenestra Construction Co.....	66	98	Do.
Taylor Instrument Co.....	98		Do.
Controversy, Blackwell Lumber Co., Coeur d'Alene, Idaho.....	380	650	Pending.
Controversy, Globe Mach. & Supply Co., Des Moines, Iowa.....			Do.
Threatened strike, teamsters, Helena, Mont.....	100	20,000	Adjusted.
Controversy, West Virginia Aircraft Co., West Virginia.....			Pending.
Controversy, Champion Sparta Plug Co., Toledo, Ohio.....	150	600	Adjusted.
Threatened strike, Eastern Steel Co., Pottsville, Pa.....	700		Referred to Na- tional War Labor Board.
Strike, Sterling Products Co., Wheeling, W. Va.....	100	65	Mediator believes men will return to work.
Threatened strike, American Cement Plaster Co., Gypsum near Port Clinton, Ohio.....	40		Adjusted.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, AUG. 16, 1918, TO SEPT. 15, 1918—Continued.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, American Gypsum Co., Port Clinton, Ohio.	50	100	Adjusted.
Strike, Western Union Mfg. Co., Kansas City, Mo.			Do.
Threatened strike, Chambersburg, Pa.: Chambersburg Foundry & Machine Co.	85		Referred to National Labor Board.
T. B. Wood's Sons Co.	300		Do.
The Wolf Co.	300		Do.
Controversy, pattern makers, Buffalo, N. Y.			Pending.
Controversy, stereotypers and electrotypers, San Francisco, Cal.			Do.
Controversy, boiler makers, Kewanee Boiler Works, Kewanee, Ill.			Do.
Threatened strike, motormen and conductors, Cleveland Street Car R. R., Cleveland, Ohio.			Do.
Controversy, hod carriers, Butte, Mont.			Do.
Controversy, clothing makers, finishers, etc., S. Suskind's, Philadelphia, Pa.	60	300	Adjusted.
Threatened strike, Fort Wayne, Ind.: Fort Wayne & Northern Indiana Traction Co.	50	85	Do.
Home Telephone & Telegraph Co.	14	30	Do.
City Light & Power Co.	17	150	Do.
Controversy, Niagara Electro Chemical Co., Niagara Falls, N. Y.			Pending.
Controversy, Muncie Foundry & Machine Co., Muncie, Ind.	79	300	Adjusted.
Controversy, moving picture operators, Kansas City, Kans.			Pending.
Threatened strike, Salem, Mass.: A. M. Joly, carpenters.			Do.
Pitman & Brown.			Do.
Threatened strike, Green Bay, Mich.: Northern Paper Mills Co.	450	500	Adjusted.
Green Bay Paper & Fiber Co.	400		Do.
Threatened strike, plasterers, St. Paul, Minn.			Adjusted before commissioner's arrival.
Controversy, car repair men, South Buffalo R. R., Buffalo, N. Y.			Pending.
Strike, porters and drivers, Hinrich & Pond Co., New York, N. Y.	7	45	Adjusted.
Controversy, employees, S. Blickman, New York, N. Y.			Pending.
Strike, California Packing Corporation & Fruit Works, San Francisco, Cal.	850	75	Adjusted.
Threatened strike, fruit workers, and Canning Co., San Jose, Cal.	1,200	3,800	Do.
Controversy, D. M. Dillon Steam Boiler Works, Fitchburg, Mass.			Pending.
Strike, Leetonia Railway Co., Leetonia, Pa.	10	130	Adjusted.
Threatened strike, Fort Worth stockyards, Fort Worth, Tex.			Do.
Strike, telephone workers, Palestine, Tex.	4	12	Pending.
Strike, Union Salt Co., Cleveland, Ohio.			Adjusted.
Controversy, river coal employees and marine engineers, Pittsburgh, Pa.	100		Do.
Controversy, Mather Spring Co., Toledo, Ohio.			Pending.
Controversy, engineers, Montana & Royal Mills, Great Falls, Mont.			Do.
Controversy, Hanna Coal Co., Superior, Wis.			Do.
Strike, Rochester Box & Lumber Co., Rochester, N. Y.	25		Adjusted.
Lockout, Power Specialty Co., Dansville, N. Y.	300		Do.
Controversy, Wheeling Steel & Iron Co., Yorkville, Ohio.			Pending.
Controversy, American R. R. Express Co., Indianapolis, Ind.			Do.
Controversy, Ohio Drop Forge Co., Cleveland, Ohio.			Do.
Controversy, Champion Machine Forge Co., Cleveland, Ohio.			Do.
Controversy, textile workers, Woodstock Mills, Norristown, Pa.			Do.
Controversy, Vandyke Taxicab Co., Buffalo, N. Y.			Do.
Controversy, Middletown Car Co., Middletown, Pa.			Do.
Lockout, Benjamin Iron & Steel Co., Hazelton, Pa.			Do.
Threatened strike, carpenters, Neville Island, Pittsburgh, Pa.			Do.
Strike, Wheeling Traction Co., Wheeling, W. Va.			Adjusted prior to commissioner's arrival.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, AUG. 16, 1918, TO SEPT. 15, 1918—Concluded.

Dispute.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, molders, Lancaster, Ohio.....			Pending.
Threatened strike, Kokomo Brass Works, Kokomo, Ind.....			Do.
Controversy, F. Blumenthal Co., Wilmington, Del.....			Do.
Controversy, North Lebanon Coke Plant, Lebanon, Pa.....	130		Do.
Strike, Eclipse Coal Co., Astoria, Ill.....			Do.
Controversy, Carpenter Steel Co., Reading, Pa.....			Do.
Controversy, Textile Machine Co., Reading, Pa.....			Do.
Controversy, Bell Telephone Co., St. Louis, Mo.....			Do.
Lockout, Keith's Theater, Indianapolis, Ind.....			Do.
Strike, Gulf, Florida & Alabama R. R., Pensacola, Fla.....	59		Do.
Threatened strike, street car employees, Danville, Ill.....			Do.
Strike, masons, Syracuse, N. Y.....			Do.
Lockout, Veneering Co., Birchwood, Wis.....			Do.
Strike, Harry O. Smith Manufacturing Co., Milwaukee, Wis.....	14	20	Adjusted.
Controversy, Cleveland Telephone Co., Ohio State Telephone Co., Cleveland, Ohio.....			Pending.
Controversy, telephone employees, Salt Lake City, Utah.....			Do.
Threatened strike, Haynes Automobile Co., Kokomo, Ind.....			Do.
Threatened strike, Electric Co., Kokomo, Ind.....			Do.
Controversy, Premier Motor Corporation, Indianapolis, Ind.....			Do.
Controversy, Remington Arms Plant, Hoboken, N. J. (Wm. Griffin's case).....			Do.
Controversy, Louisville Car Wheel & Supply Co., Louisville, Co.....			Do.
Controversy, electrical workers, Scranton Electric Co., Scranton, Pa.....			Do.

The following cases noted as pending in the August statement have been disposed of:

Controversy, International Engine Works, Framingham, Mass.
 Controversy, Marks Manufacturing Co., Indiana Harbor, Ind.
 Strike, Cleveland Welding & Manufacturing Co., Cleveland, Ohio.
 Strike, neckwear industry, N. Y.
 Controversy, Clarkson Coal & Dock Co., Ashland, Wis.
 Controversy, International Jewelry Works Union and employers, Attleboro, Mass.
 Controversy, electrical workers and contractors on Government warehouse, Schenectady, N. Y.
 Controversy, tin-can workers, Chicago, Ill.
 Controversy, boiler makers and helpers, Oil Well Supply Co., Oswego, N. Y.
 Controversy, electrical workers on transports, New York.
 Strike, Squantum shipyard, Squantum, Mass.
 Controversy, Dubuque Boat & Boiler Works, Dubuque, Iowa.
 Controversy, metal workers and metal miners, Butte, Mont.
 Controversy, Farmers' Cooperative Co., and butchers, Madison, Wis.
 Controversy, St. Mary's Oil Engine Co. and machinists, St. Charles, Mo.
 Controversy, carpenters, Port Huron, Mich.
 Controversy, Chicago Surface Lines, cable splicers, Chicago, Ill.
 Controversy, sheet-metal workers, Ashland Iron & Mining Co., Ashland, Ky.
 Controversy, foundry employees, Belleville, Ill.
 Strike, sheet-metal workers, De Pere Manufacturing Co., De Pere, Wis.
 Threatened strike, Elgin and Chicago railways.
 Controversy, machinists, American Machine & Elevator Co., Louisville, Ky.
 Controversy, electrical workers, Symington-Anderson Co., Rochester, N. Y.
 Controversy, engineers, Seneca Wire & Manufacturing Co., Fostoria, Ohio.
 Lockout, Gadsden Car Works, Gadsden, Ala.

Strike, slaughterhouse men, Swift & Armour plants, Los Angeles, Cal.
 Controversy, U. S. Gypsum Co., Port Clinton, Ohio.
 Controversy, miners, Silverton, Colo.
 Threatened strike, Lake Erie fish dressers, Erie, Pa.
 Controversy, bridge and structural-iron workers, Moss Iron Works, Wheeling, W. Va.
 Controversy, metal polishers, Nagel Electric Co., Toledo, Ohio.
 Controversy, metal polishers, Saxon Manufacturing Co., Toledo, Ohio.
 Controversy, metal polishers, Electric Auto-Lite Co., Toledo, Ohio.
 Threatened strike, machinists and toolmakers, Model Gas Engine Co., Peru, Ind.
 Strike, express drivers, American Railway Express Co., Columbus, Ohio.
 Controversy, electrical workers, Standard Engine Co., Pittsburgh, Pa.
 Controversy, smelter workers, Blackwell, Okla.
 Walkout, die sinkers and makers, Herbrand Co., Fremont, Ohio.
 Controversy, shipyard, Superior, Wis.
 Strike, Saco-Lowell Shops, Newton Upper Falls, Mass.
 Strike, trainmen, Crucible Steel Co., East Liverpool, Ohio.
 Controversy, carpenters, Lone Star Ship Building Co., Beaumont, Tex.
 Controversy, Stenotype Co., Indianapolis, Ind.

CONCILIATION BOARD TO INQUIRE INTO LABOR DIFFERENCES IN JAMAICA.

As a result of considerable labor unrest in the island of Jamaica, public notice was issued on June 25, 1918, announcing a proposal to appoint a board to inquire into differences between employers and laborers. This board, known as the conciliation board, was subsequently appointed by the governor, according to a statement issued from the colonial secretary's office on July 8 and published in the *Jamaica Gazette Extraordinary* of even date.¹ The following is the notice in full:

By a public notice, dated the 25th of June, 1918, it was announced that the governor would appoint a board to inquire into each case in which an employer and laborers or workmen were unable to settle their differences.

In keeping with this announcement the governor has appointed a "conciliation board." This board is composed of more than 50 persons, and from these persons a subcommittee (as hereinafter mentioned) will be selected by the governor to inquire into any particular dispute.

Before selecting a subcommittee as above mentioned the governor must be furnished with evidence that genuine and patient attempts have been made to settle the particular dispute amicably. In each case this evidence must be presented to the honorable the colonial secretary for submission to his excellency.

Assuming that the governor is satisfied that a dispute can not be settled amicably, the following procedure will be followed:

(a) The colonial secretary will send to each party—i. e., the employer, and also to a representative of the laborers or workmen—a complete list of the persons composing

¹ Through the State Department a copy of this issue of the *Jamaica Gazette Extraordinary* was received by this bureau from the American consul at Kingston.

the conciliation board; (b) having received this list, each party will select therefrom eight names and, in addition, will send the colonial secretary a written list setting forth the eight names.

As soon as the foregoing procedure has been followed, the governor will select (from the conciliation board) a subcommittee to investigate and to settle the particular dispute. Usually this subcommittee will be composed of a chairman and four other persons; all to be members of the conciliation board. The chairman will always be selected specially by the governor. With regard to the other four persons, the governor—as a general rule—will select them in the following manner:

(a) He will select two from the list which has been submitted by the employer;
(b) he will select two from the list which has been submitted by the representative of the laborers or workmen.

IMMIGRATION.

IMMIGRATION IN JULY, 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 was 139 less 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 0.6 per cent. In November a decrease of 30.6 per cent from the number admitted in October was shown. 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 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, May as compared with April, an increase of 59.5 per cent, while June as compared with May decreased 6.4 per cent. July as compared with June showed a decrease of 45.4 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	14,247	16.4
July.....	138,244	60,377	21,504	25,035	9,367	7,780	45.4
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	9,284	.....	.....
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 July, 1918, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN JULY, 1918, BY NATIONALITY.¹

Nationality.	Year ending June 30—				July, 1918.
	1915	1916	1917	1918	
African (black).....	5,660	4,576	7,971	5,706	656
Armenian.....	932	964	1,221	221	12
Bohemian and Moravian.....	1,651	642	327	74	17
Bulgarian, Serbian, Montenegrin.....	3,506	3,146	1,134	150	-----
Chinese.....	2,469	2,239	1,843	1,576	149
Croatian and Slovenian.....	1,942	791	305	33	1
Cuban.....	3,402	3,442	3,428	1,179	115
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	-----
Dutch and Flemish.....	6,675	6,443	5,393	2,200	162
East Indian.....	82	80	69	61	6
English.....	38,662	36,168	32,246	12,980	1,369
Finnish.....	3,472	5,649	5,900	1,867	63
French.....	12,636	19,518	24,405	6,840	529
German.....	20,729	11,555	9,682	1,992	91
Greek.....	15,187	26,792	25,919	2,602	49
Hebrew.....	26,497	15,108	17,342	3,672	325
Irish.....	23,503	20,636	17,462	4,657	433
Italian (north).....	10,660	4,905	3,796	1,074	46
Italian (south).....	46,557	33,909	35,154	5,234	49
Japanese.....	8,609	8,711	8,925	10,168	1,345
Korean.....	146	154	194	149	5
Lithuanian.....	2,638	599	479	135	9
Magyar.....	3,604	981	434	32	1
Mexican.....	10,993	17,198	16,438	17,602	102
Pacific Islander.....	6	5	10	17	2
Polish.....	9,065	4,502	3,109	668	39
Portuguese.....	4,376	12,208	10,194	2,319	58
Roumanian.....	1,200	953	522	155	2
Russian.....	4,459	4,858	3,711	1,513	119
Ruthenian (Russniak).....	2,933	1,365	1,211	49	5
Scandinavian.....	24,263	19,172	19,596	8,741	313
Scotch.....	14,310	13,515	13,350	5,204	442
Slovak.....	2,069	577	244	35	2
Spanish.....	5,705	9,259	15,019	7,909	840
Spanish-American.....	1,667	1,881	2,587	2,231	264
Syrian.....	1,767	676	976	210	21
Turkish.....	273	216	454	24	-----
Welsh.....	1,390	983	793	278	14
West Indian (except Cuban).....	823	948	1,369	732	102
Other peoples.....	1,877	3,388	2,097	314	23
Total.....	326,700	298,826	295,403	110,618	7,780

¹ The total number of departures of emigrant aliens in July was 4,385.

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

ARIZONA.—*State Board for the Control of Vocational Education. Bulletin No. 1, August, 1918. State and Federal aid for vocational education under the Smith-Hughes Act. Phoenix, Department of Vocational Education, 1918. 68 pp.*

Appropriations for vocational education in Arizona are equally divided among three general classes of work: I. Agriculture—all-day schools; II. 1. Trade and industry—all-day schools, evening schools, and part-time schools; and 2. Home economics—all-day schools; and III—Teacher training. Space is devoted in the bulletin to proposed outlines of instruction in the different courses included in these classes and to discussions of purposes and methods.

CALIFORNIA.—*State Board of Health. Special Bulletin No. 28. Biological Division. Bureau of Communicable Diseases. Sanitation in mines for the prevention and eradication of hookworm. By Charles A. Kofoed and William W. Cort. Sacramento, 1918. 12 pp.*

A review of this bulletin was contained in the MONTHLY LABOR REVIEW for July, 1918, pages 190 to 192.

KENTUCKY.—*Bureau of Labor and Bureau of Immigration. Eighth biennial report of the Bureau of Labor and report of the Bureau of Immigration. 1916-17. Frankfort, 1918. 177 pp.*

Reports in detail the activities of the department in enforcing the working women's law and the child labor law; tabulates wages earned by workers in leading industries of the State; gives the text of the working women's law and of the child-labor law; and includes a directory of labor unions in the State.

— *Workmen's Compensation Board. Annual report of department, August 1, 1916, to June 30, 1917. Frankfort, 1918. 52 pp.*

This report is reviewed on pages 228 to 230 of this issue of the MONTHLY LABOR REVIEW.

— — *Handbook of instructions to employers and employees operating under the workmen's compensation act. Revised to September 1, 1916. Frankfort [1916]. 30 pp.*

— — *Report of leading decisions, August 1, 1916, to November 1, 1917. Frankfort [1918]. 149 pp.*

— — *Workmen's compensation law, State of Kentucky. Effective August 1, 1916. Frankfort [1918]. 44 pp.*

Text of the law, with a digest of the 1918 amendments on the back cover.

LOUISIANA (NEW ORLEANS).—*Parish of Orleans. Factories Inspection Department. Two pamphlets: Ninth report, for the year ending December 31, 1916; Tenth report, for the year ending December 31, 1917. New Orleans. 9 pp. and 11 pp.*

MASSACHUSETTS.—*Bureau of Statistics. Forty-first quarterly report on employment in Massachusetts, quarter ending March 31, 1918. Boston, 1918. 16 pp.*

According to returns received from 1,226 labor organizations at the close of March, 1918, representing 228,867 members, 6 per cent of the total membership were unemployed from all causes, showing a decrease as compared with the corresponding percentage (7.4) for the close of December, 1917. Lack of work was the cause of unemployment in the case of 50.4 per cent of the 13,843 reported as not working, and the

greatest amount of unemployment (44.5 per cent) was in the building trades, carpenters being most generally affected (35.1 per cent of the total unemployed in these trades and 15.6 per cent of the total unemployed).

MASSACHUSETTS.—*Commission on Mental Diseases. (Published quarterly.) Bulletin, Volume 1, Nos. 3 and 4. Edited by Walter E. Fernald, George M. Kline, E. E. Southard. Boston. 1918. 259 pp.*

Contains articles on the functions of social service in State hospitals and on the psychopathic employee, a problem of industry, the latter being based upon investigations carried on by the Boston Psychopathic Hospital into the difficulties in which their patients become involved in industry and how far these difficulties are referable to their disabilities.

— *Minimum Wage Commission. Fifth annual report for the year ending December 31, 1917. Boston, 1918. 51 pp. Public document No. 102.*

This report is reviewed on pages 186-189 of this issue of the MONTHLY LABOR REVIEW.

— *Wages of women employed as office and other building cleaners in Massachusetts. Bulletin No. 16. Boston, 1918. 36 pp.*

A digest of this bulletin is given on pages 196 to 199 of this issue of the MONTHLY LABOR REVIEW.

NEW HAMPSHIRE.—*Bureau of Labor. Factory inspection [Standard No. 1-11], 11 pp.*

The subjects covered by these standards are stairways, railings, belts and pulleys, elevator shaftings, first-aid cabinets, abrasive wheels, fire escapes, miscellaneous, toilet facilities, drinking water, safety organization.

NEW YORK.—*Conference of Charities and Corrections. Proceedings of the eighteenth conference, Binghamton, N. Y., November 13-15, 1917. Binghamton. [1917.] 313 pp.*

One session of the congress was devoted to the subject of industrial and vocational training. The report contains the introductory remarks of the chairman of this session, Miss Mary Van Kleeck, of the Russell Sage Foundation, New York City, concerning the relation between vocational and industrial training and industrial unrest, an address on social significance of the modern school, by Angelo Patri, principal of Public School No. 45, New York City; the New York City industrial education survey, by Herbert Blair, statistician, vocational division, Military Training Commission; and training women workers in war time, by Miss May Allinson, assistant secretary, National Society for the Promotion of Industrial Education.

— *Department of Labor. Bureau of Statistics and Information. Industrial Commission. Special Bulletin No. 88. New York labor laws enacted in 1918. [Albany.] June, 1918. 71 pp.*

— (CITY).—*Board of Aldermen. Committee on General Welfare. Preliminary report. In the matter of a request of the Conference of Organized Labor relative to educational facilities. Meeting of June 26, 1917. [New York, 1917.] 346 pp.*

Includes the petition of February 6, 1917, from the Conference of Organized Labor requesting that the board hold meetings and invite the board of education and city officials to answer why the demands for better educational facilities have not been respected, and the minutes of the several hearings held pursuant to this communication.

— *Department of Education. Nineteenth annual report of the superintendent of schools, 1916-17. June 19, 1918. 109 pp.*

Industrial and placement work for crippled and deaf children is the subject of one of the reports on special classes which are included in this annual statement.

NORTH DAKOTA.—*Public Welfare Commission. A compilation of the laws relating to the employment of women and children in the State of North Dakota. [Bismarck.] 1918. [9 pp.]*

PENNSYLVANIA.—*Report of the Department of Mines, 1916. Part I, Anthracite, 900 pp.; Part II, Bituminous, 1404 pp. [Harrisburg.] 1917.*

It is stated in the introduction that the production of coal for the year was 256,-804,012 net tons, an increase of 10,006,238 tons over 1915. Of this 87,680,198 tons were anthracite and 169,123,814 tons bituminous. Anthracite production decreased 1,697,508 tons and bituminous increased 11,703,746 tons, as compared with 1915. The number of employees in and about mines was 333,473.

There were 1,001 fatal accidents, of which 565 were in the anthracite region and 436 in the bituminous. Nonfatal accidents numbered 3,316, of which 1,510 were in the anthracite and 1,806 in the bituminous region.

The number of lives lost through accidents per 1,000 employees was 3.55 in anthracite and 2.50 in bituminous mining. The rates in 1915 were 3.32 and 2.35, respectively.

In anthracite mining operations in 1916 the number of employees was 159,169, or 18,170 less than in 1915. The number of lives lost was 6.44 per 1,000,000 tons produced in 1916, 6.58 in 1915, and for the 18-year period 1899-1916, 7.34.

Fatal accidents due to falls of coal, slate, and roof formed 32.59 per cent, and to operation of cars 15.32 per cent of all fatal accidents inside mines in the anthracite region.

In bituminous operations the number of employees was 174,304, or 13,430 less than in 1915, and the number of lives lost through accidents was 2.58 per 1,000,000 tons produced, as compared with 2.81 in 1915 and 3.71 for the 18-year period 1899-1916. For the year 1916 falls of coal, slate, and roof caused 55.10 per cent, mine cars caused 21.60 per cent, and explosions of gas and dust caused 8.74 per cent of all fatal accidents reported inside mines. Of the fatal accidents occurring outside of bituminous mines 62.50 per cent were due to cars.

The number of minor children 16 to 20 years of age, inclusive, employed inside anthracite mines was 8,293. The loss of lives in this group of employees was 4.58 per 1,000 such employees. There were 9,877 boys between 14 and 20 years of age, inclusive, employed at work outside of the mines, where the fatal accident rate was 1.32 per 1,000 of such persons employed. The rate of fatal accidents for both groups was 2.81 per 1,000 of such employees.

In bituminous mines there were 8,303 boys between 16 and 20 years of age, inclusive, employed inside mines. The fatal accident rate for such employees was 4.09 per 1,000. There were 11,536 boys between the ages of 14 and 20, inclusive, employed outside the mines where the fatal accident rate was 0.31 per 1,000 of such employees. For both groups combined the rate was 3.03 per 1,000.

"Many new small mines have also been opened during the year in the bituminous region, and in the aggregate they have produced hundreds of thousands of tons of coal, but as they did not come under the law owing to the small number of employees, no official record was made of their production."

The following titles indicate other subjects discussed in the introduction: Labor conditions, trade conditions, new system of haulage, education of employees, first aid and community work, and proposed legislation.

SOUTH DAKOTA.—[*Supreme Court.*] *Rules and regulations governing the taking and prosecution of appeals to the circuit courts under the provisions of the workmen's compensation law. Chapter 376, Laws 1917. 4 pp.*

WISCONSIN.—*Industrial Commission. Child labor law—with explanatory notes. [Madison.] 1918. 32 pp.*

Contains also the reprint of an address on "The rational basis of legislation for women and children," by Albert H. Sanford, professor of economics, State Normal School, La Crosse, Wis., delivered before the La Crosse business men at a meeting held under the auspices of the Industrial Commission of Wisconsin.

WISCONSIN.—*Industrial Commission. General orders on safety building construction. Revised, 1918. Madison, 1918. 30 pp. Diagrams.*

UNITED STATES.—*Congress. House of Representatives. Committee on Mines and Mining. Minerals and metals for war purposes. Hearings before the committee. March 25–April 2, 1918. Washington, 1918. 180 pp.*

— *Department of Commerce. Bureau of the Census. Deaf-mutes in the United States. Analysis of the census of 1910 with summary of State laws relative to the deaf as of January 1, 1918. Washington, 1918. 221 pp.*

— *Statistics of fire departments of cities having a population of over 30,000. 1917. Washington, 1918. 105 pp.*

— *Bureau of Foreign and Domestic Commerce. Miscellaneous Series—No. 71. Wearing apparel in Brazil. Prepared by William C. Downs. Washington, 1918. 64 pp. Price, 10 cents.*

— *Special Agents Series—No. 157. Cotton goods in British India. Part V.—Summary of trade. Part VI.—Cotton manufacturing. By Ralph M. Odell. Washington, 1918. 57 pp. Price, 10 cents.*

— *Department of the Interior. Bureau of Mines. Methane accumulations from interrupted ventilation, by Howard I. Smith and Robert J. Hamon. Technical Paper 190. Illinois coal-mining investigations cooperative agreement. Washington, 1918. 46 pp. Illustrated.*

This paper presents the result of tests, supplemented by investigations of explosions, disproving the theory that interrupted ventilation during shot firing lessens the danger of explosions due to coal dust in bituminous mines, and shows that, on the contrary, slowing the fan allows methane, the inflammable gas commonly generated in coal mines, to accumulate and constitutes a dangerous practice. The study is based on conditions in southern Illinois and Indiana mines, and is the first to show the rate at which methane accumulates in mines during periods of disturbed ventilation.

— *Federal Board for Vocational Education. Bulletin No. 14. Agricultural Series No. 2. Reference material for vocational agricultural instruction. Washington, June, 1918. 26 pp.*

— *Bulletin No. 15 (Reeducation Series No. 3). The evolution of national systems of vocational reeducation for disabled soldiers and sailors, by D. C. McMurtree. Washington, 1918. 319 pp.*

The volume deals with the subject of rehabilitation generally, its principles, the attitude of the public toward the disabled man, and the outlook and viewpoint of the men themselves. It then takes up the various countries—France, Belgium, Great Britain, Italy, Germany, Austria-Hungary, Canada, and other British dominions. Information concerning placement, insurance, and pensions in the various countries concerned is included. The foreword states: "It is probably the most complete account available of the experience of the belligerent countries in rehabilitating their disabled."

— *Federal Trade Commission. Summary of the report on the meat-packing industry. July 3, 1918. Washington, 1918. 51 pp. Food investigation.*

Contains a summary of the findings and of the recommendations of the commission, also of the evidence upon which both are based, which shows: "First, the magnitude of the large meat-packing companies, the extensive ramifications of their interests, and the instruments by which they have established and maintain control. Second, the nature of their combination, with details of the various agreements and combinations. Third, the practices of the combination and their social and economic effects. Fourth, the remedy proposed."

UNITED STATES.—*Tariff Commission. Tariff Information Series—No. 5. The glass industry as affected by the War. New branches of the industry—Changes in manufacture and trade due to war conditions—Holding export and domestic trade after the War—The glass trade of European countries—Testimony of leading American manufacturers. Washington, 1918. 147 pp.*

OFFICIAL—FOREIGN COUNTRIES.

ARGENTINA.—*Proyecto de Código de Seguro Nacional con Exposicion de Motivos y Proyecto de Ley Basica presentado a la H. Cámara de Diputados en la sesión No. 70 de 21 Setiembre de 1917 por el diputado Dr. Augusto Bunge. Cámara de Diputados de la Nación, Buenos Aires, 1917. 539 pp.*

This volume contains the proposed code of national insurance presented to the Chamber of Deputies of Argentina by Dr. Augusto Bunge in September, 1917. In a book review which appeared in the MONTHLY REVIEW for May, 1918, page 305, credit inadvertently was not given to Dr. Bunge, who is the sole author of the text of the proposed code and of the report which accompanied it, and it was erroneously stated that the volume contained the report of a committee to which the proposed law was referred. No committee report was made but Dr. Bunge recommended that a committee be nominated to prepare a code, and he submitted the proposed code for the study of such a committee when it should be appointed. In regard to the statement that only 65,188 out of half a million registered members of associations of mutual aid are Argentine citizens, Dr. Bunge writes that "this is the membership of associations the majority of whose members are Argentines, but there are also many Argentine citizens in the other associations—the Cosmopolitan, which admits members of all nationalities, and the Italian, Spanish, etc., which admit Argentines of Italian or Spanish parents, etc.—perhaps a total of 150,000."

AUSTRALIA.—*Bureau of Census and Statistics. Official statistics. Trade and customs and excise revenue for the year 1916-17. Prepared under instructions from the Minister of State for Home and Territories. C. S., No. 334. [Melbourne, 1918.] 612 pp.*

CANADA.—*Imperial Munitions Board. Women in the production of munitions in Canada. [Ottawa.] November, 1916. 64 pp., mostly illustrations.*

A collection of photographs showing women at work in Canadian munition plants. The main object is to emphasize the practicability of woman labor in the production of munitions in Canada, according to an explanatory foreword and a preface by the director of the department of labor of the board.

— (BRITISH COLUMBIA).—*First annual report of the Workmen's Compensation Board for the year ending December 31, 1917. Victoria, B. C., 1918. 30 pp.*

A review of this report is given on pages 230 to 232 of this issue of the MONTHLY LABOR REVIEW.

DENMARK.—*Arbejderforsikrings-Raadet. Danske ulykkesinvalider; undersøgelse om hvordan det økonomisk er gaaet for personer, der 1905-1914 af Arbejderforsikrings-Raadet har faaet tilkendt erstatning for mindst 50 p. ct. invaliditet, foretaget af Arbejderforsikrings-Raadet til brug for det 4 de Nordiske Arbejder-Ulykkesforsikrings-Møde ved * * * F. Zeuthen. (Les invalides des accidents du travail en Danemark.) Copenhagen, 1918. 161 pp.*

For a review of the salient features of this report on what becomes of the handicapped man in industry in Denmark, see pp. 85 to 90. The volume contains a very complete summary in French, pp. 147-161.

GREAT BRITAIN.—*Central Control Board (Liquor Traffic). Alcohol, its action on the human organism. London, 1918. 133, x, pp.*

In November, 1916, the Central Control Board (Liquor Traffic) appointed an advisory committee "to consider the conditions affecting the physiological action of

alcohol, and more particularly the effects on health and industrial efficiency produced by the consumption of beverages of various alcoholic strength, with special reference to recent orders of the Central Control Board, and further to plan out and direct such investigations as may appear desirable, with a view to obtaining more exact data on this and cognate questions." This volume presents the unanimous conclusions of the committee and is printed as the basis for further research. The preface is by Lord D'Abernon, chairman of the Central Control Board.

GREAT BRITAIN.—*Central Control Board (Liquor Traffic). Fourth report of the Central Control Board (Liquor Traffic) appointed under the Defense of the Realm (Amendment) (No. 3) Act, 1915. [Cd. 9055.] London, 1918. 27 pp. Price 3d. net. Defense of the Realm (Liquor Control) Regulations, 1915.*

This report in special chapters deals with the development of the general work of the board—the areas to which the board's orders have been applied; the special treatment of certain areas; other matters of administration; scientific advisory committee on alcohol; the effects of the restrictive orders; industrial canteens; and direct control. Appendix I gives tables showing convictions for drunkenness, deaths from alcoholic diseases, cases of attempted suicide, and deaths of infants from suffocation; and Appendix II a sketch map showing the distribution of licensed premises in Carlisle. In discussing the effects of the restrictive orders in reducing the inefficiency which may be caused either by drunkenness or by drinking which is excessive and harmful the report of the commissioner of police of the metropolis dated February 25, 1918, is quoted to the effect that "In 1913 the convictions for drunkenness in the Metropolitan police district amounted to 64,617; in 1914 they amounted to 67,103; in 1917 they were 16,567. These figures relate to 200 police station areas making up the 700 square miles of the Metropolitan police district with its population of over seven and one-half millions." The weekly average of convictions for drunkenness in Greater London, Birmingham, Liverpool, Manchester, and Glasgow were in 1913, 1,259, 91, 286, 148, 514, respectively; in 1916, 566, 25, 112, 50, 319; in four weeks to January 28, 1917, 566, 21, 91, 37, 286; and in four weeks to March 24, 1918, 217, 9, 83, 25, 157. "The outstanding characteristics of these figures are (1) that, while public drunkenness had already by the end of 1916 reached a low level which would have been thought incredible two years or perhaps even one year previously, the period subsequent to 1916 shows a further substantial decline; (2) that nearly the whole of this substantial decline was secured in the earlier months of 1917; and (3) that a further improvement, though now very slow and slight, and not quite universal, appears to be still in progress."

— — — *Public health and alcoholism among women. By Lord D'Abernon. [London, 1918.] 10 pp.*

Address by the chairman before the board citing evidence based upon figures which show the decrease in alcoholism and in its most vicious consequences among women since 1913. The main causes of this decrease are stated to be apparently: "The restrictive measures applied to the sale of alcohol; the constructive measures adopted to increase all opportunities for nonalcoholic refreshment; and the restrictions on the output and release from bond of alcoholic liquors imposed by the food controller."

— — — *Public health and the control of the liquor traffic. By Lord D'Abernon. [London, 1918.] 7 pp.*

Address to the board by its chairman in which his account of the effects of alcoholism upon mortality and public health is strengthened by the statistics of three tables: I. Deaths certified as (a) from alcoholism, (b) connected with alcoholism, though not directly due to it, and (c) from cirrhosis of the liver (not certified as alcoholic) in England and Wales in each of the years 1913-1916, expressed in percentages of the

figures for 1913; II. Convictions for drunkenness, cases of delirium tremens treated in poor-law infirmaries, and deaths from excessive drinking, in Liverpool, in three 12-month periods; and III. Convictions for drunkenness in England and Wales, in years 1913-1916.

GREAT BRITAIN.—*Central Control Board (Liquor Traffic). Some aspects of the drink problem. By Lord D'Abernon. [London, 1918.] 6 pp. 4 charts.*

Address to the board on the results of the scientific study of the effects of alcohol on the health and life of males and females, to which is added charts showing the consumption of spirits (all kinds) and beer in the United Kingdom in gallons per head of population; number of persons tried for drunkenness in England and Wales; convictions for simple drunkenness compared with convictions for drunkenness with aggravations and involved with other offenses, for eight English cities, 1909 to 1916; seasonal fluctuations of drunkenness, and convictions in England and Wales, figures from "Licensing Statistics."

— — — *Temperance advance in England and Wales. Present compared with prewar conditions. [London, 1918.] 1 p.*

Chart illustrating the advance in temperance between 1913 and 1917, also the first six months of 1918.

— — — *The work of the Central Control Board. Speech by Lord D'Abernon at the annual spring assembly of the Congregational Union of England and Wales. [London.] 6 pp.*

An account of the results which have accrued to the nation from the system of control of the drink trade which has been in force for the last three years.

— *Committee on Production and special arbitration tribunal (Section 1 (2) Munitions of War Act, 1917). Memorandum on proceedings of the Committee on Productions. May 1917-April 1918. [Cd. 9126.] London, 1918. 9 pp. Price 2d. net.*

Summarizes the work during 12 months of the committee, which is the principal arbitration tribunal under the Munitions of War Acts for the determination of differences between employers and employed. During the 12 months ending April 30, 1918, there were 1,333 awards made, as follows: May 1917 (part), 23; June, 53; July, 84; August, 104; September, 76; October, 86; November, 120; December, 108; January, 1918, 145; February, 134; March, 184; April, 216.

The number of cases dealt with was 71 per month for the first six months, and 151 per month for the last six months. These represented practically all the principal trades and industries of the country, and included not only cases referred to the commission under the provisions of the Munitions of War Acts, but also cases which were so referred by the voluntary consent of employers and workpeople.

— *Home Office. Forty-second annual report of His Majesty's inspectors of explosives, being their annual report for the year 1917. [Cd. 9050.] Explosives Act, 1875 (38 Vict., c. 17). London, 1918. 18 pp. Price 3d. net.*

— *Intelligence Department. Report. 1918. Infant welfare in Germany during the War. London, 1918. 37 pp. Price 6d. net.*

This report is summarized on pages 201 to 206 of this issue of the MONTHLY LABOR REVIEW.

— *Ministry of Labor. The Month's Work. London, July, 1918. 16 pp. Price 2d. net.*

This is the first issue of a monthly magazine issued by the Ministry of Labor. There is a foreword by the Minister of Labor, and articles on Australia's aid, the labor resettlement committee, the problem of demobilization, and the Whitley report in action. A section is devoted to the woman worker.

GREAT BRITAIN. Ministry of Munitions. *Health of Munition Workers Committee. The industrial employment of women and girls. Section IV and Appendix B extracted from final report. (1) The industrial employment of women. (2) A further inquiry into the health of women munition workers. By Miss Janet M. Campbell. (3) General findings of inquiries into the health of women munition workers. By Miss Janet M. Campbell. London, 1918. 32 pp. Price, 3d. net.*

Very similar conclusions are reached in these three reports through the extensive data upon which they are based. These include recommendations for the further shortening of the hours of labor for women; adequate and suitable medical supervision, including rest rooms and first-aid appliances, medical officers and nurses; the careful selection of women, and restricting employment in the heavier work to those who are young and physically capable; good and sufficient food at suitable times, including the provision of industrial canteens; and a suitable factory environment. The committee state it as their opinion that if the maximum output of which women are undoubtedly capable is to be secured and maintained for an extended period, such essentials must be provided. See pages 219 to 222 of the September MONTHLY LABOR REVIEW for a more extended discussion of these reports.

— Report of a committee appointed by the Right Hon. the Minister of Munitions respecting the production of fuel oil from home sources. [Cd. 9128.] London, 1918. 7 pp. Price, 1d. net.

— Ministry of Pensions. *List of courses of training in operation or sanctioned throughout the United Kingdom. London. May, 1918. 15 pp.*

The object of this list, which will be amended from month to month, 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, where training is not available in any particular area, advantage may be taken of the training provided by other areas.

— Ministry of Reconstruction. *First (interim) report of the Civil War Workers' Committee. [Cd. 9117.] London, 1918. 11 pp. Price, 2d. net.*

Contains recommendations for a plan of procedure for assisting munition and other workers discharged on the termination of hostilities to return to their former occupations, through the medium of employment exchanges working in conjunction with the Labor Resettlement Committee and the local advisory committees—now being constituted by the Ministry of Labor—in cooperation, when necessary, with the Ministry of Industrial Councils or temporary trade committees now being set up by the Ministry of Reconstruction, the Board of Trade, and the Ministry of Labor acting jointly—and with the assistance of labor unions. The object of publishing the report was to facilitate public discussion of the questions raised in it. Action is being taken in connection with some of the matters referred to in the report, and others are under further examination by committees or otherwise.

— Reconstruction Committee. *Forestry subcommittee. Final report. [Cd. 8881.] London, 1918. 105 pp. Price, 1s. net.*

The matter of afforestation in the United Kingdom is here considered in two parts—the present position and the forest policy recommended—in light of the fact that dependence on imported timber has proved a serious handicap in the conduct of the war and the resultant conclusion that in the interest of national safety more timber should be grown in the British Isles. It is estimated that, in order to render the United Kingdom independent of imported timber for three years in an emergency, it will be necessary to afforest 1,770,000 acres, and it is advised that, taking 80 years as the average rotation, two-thirds of the whole should be planted within the first 40 years. It is recommended that the care of forestry, which is now divided among several departments, be centralized in a forest authority equipped with funds and powers to survey, purchase, lease, and plant land and generally to administer the areas acquired and authorized to make limited grants for every acre planted or newly afforested during the first 10 years after the war by public bodies or private indi-

viduals, such plantations to be made in accordance with approved plans and conditions.

— GREAT BRITAIN.—[*National Health Insurance Joint Committee.*] *Memo. 239. Summary of the provisions of the national insurance (health) acts, 1911-1918, for the information of members of approved societies.* London. July 1, 1918. 20 pp. Price 1d. net.

— — — *National insurance acts, 1911-1917. Return as to the administration of sanatorium benefit from January 12, 1914, to December 31, 1914, and January 1, 1915, to December 31, 1915.* [Cd. 8845.] London, 1917. 8 pp. Price 1d. net.

Contains tables and explanatory notes relating to sanatorium benefit received by general and tubercular cases.

— *National Health Insurance Joint Committee and the Insurance Commissioners for England, Scotland, Ireland, and Wales. Circular A. S. 192. National health insurance. Rules of approved societies.* [London,] May, 1918. 2 pp.

— *Parliament. Census of England and Wales, 1911.* (10 Edward 7 and 1 George 5, ch. 27.) Vol. X. Appendix. Classified and alphabetical lists of occupations and rules adopted for classification. [Cd. 7660.] London, 1915. 37 pp. Price 8s.

These lists contain considerable additions to those of the last census, which are "the result of correspondence with representative employers of labor and others who in many cases willingly cooperated in the revision of the list by furnishing extensive and detailed lists of the terms used in their respective industries; further additions have also been made by incorporating some of the terms which in the process of tabulation were found to be used by the employees themselves in describing their occupations on the census schedules."

— — — *House of Commons. Select Committee. Report on luxury duty, together with the proceedings of the committee and appendices.* London, 1918. 51 pp. Price 6d. net.

— — — *House of Commons. Select committee on national expenditure. Fifth report, 1918.* London, 1918. 14 pp. Price, 2d. net.

Deals largely with the subject of cellulose acetate manufacture.

— — — — — *Sixth report, 1918.* London, 1918. 4 pp. Price, 1d.

A report upon the Ministry of Information.

— — — — — *Seventh report, 1918.* London, 1918. 37 pp. Price, 6d. net.

Makes recommendations in regard to the form of public accounts.

INDIA.—*Department of Statistics. Statistics of British India. Volume V. Education. 1916-1917.* [No. 585.] Calcutta, 1918. 230 pp. Chart.

IRELAND.—*Local Government Board. Annual report for the year ended 31st March, 1917, being the forty-fifth report under "The Local Government Board (Ireland) Act, 1872," 35 and 36 Vict., c. 69.* [Cd. 8765.] Dublin, 1917. LXIII pp. Price 4d.

Covers Local Government (Ireland) Acts 1898 to 1902, etc.; Poor relief; Public health, etc., acts; Provisional orders; Laborers acts; Borrowing by local authorities; Payments from the local taxation (Ireland); Account in aid of local rates, etc.

ITALY.—*Comune di Milano. Annuario Storico-Statistico 1916.* Vol. XXIII. Milan, December, 1917. CCIII, 604 pp.

A historical-statistical yearbook for 1916 of the city of Milan, containing the kind of statistics usually shown in municipal yearbooks. Of special interest to labor are the data on immigration and emigration, food, prices, employment offices, unemployment, labor disputes, factory inspection, industrial accidents, social insurance, and workmen's and employers' organizations.

— *Ministère pour l'assistance militaire et les pensions de guerre. Le problème des pensions de guerre en Italie. Relation du commandant avocat Giovanni Giuriati a la conférence interalliée de Londres (Mai 1918).* Rome, 1918. 47 pp.

A paper on the problem of war pensions in Italy read at the interallied conference on the after-care of disabled soldiers in London (May, 1918), by Judge Advocate Maj. Giovanni Giuriati in behalf of the Italian Ministry for Military Assistance and

War Pensions. The paper, after discussing the difficulties of the problem, considers the latter from its juridical, moral, political, and social aspects, describes the procedure of the award of war pensions, and gives a table showing the amount of the pension for the various military and naval ranks according to the grade of disability.

NEW ZEALAND.—[Registrar-general's office.] *Statistics for the year 1916. In four volumes. Volume IV: Education. Miscellaneous. Wellington, 1917. 184 pp.*

NORWAY.—*Fiskeridirektøren. Norges Fiskerier, 1915. Christiania, 1917, 34*, 144 pp. (Norges Officielle Statistik. VI: 115.)*

This annual report on the fishing industry of Norway shows that there were 86,076 men employed in the industry in 1915, of which number 67,771 were employed in deep-sea fishing.

— *Riksforsikringsanstalten. Aarsberetning nr. 21 fra Riksforsikringsanstalten (1917). [Christiania, 1918.] 50 pp.*

This financial report of the State Insurance Institute of Norway shows that the administrative expenses of the system formed 7.3 per cent of the gross premiums for the calendar year 1916. The average for each of the years, 1912 to 1916, was 9.8, 7.2, 7.5, and 8 per cent, respectively. The average for the period 1895 to 1916 was 9.8 per cent. The administrative expenses for 1916 amounted to 458,414 crowns (\$122,-854.95).

DATA RELATING TO NORWEGIAN INDUSTRIAL ACCIDENT INSURANCE, 1911-1915.

(Does not include fishermen's and seamen's insurance.)

Year.	Number of accidents compensated.	Number of accidents not compensated.	Total number of accidents reported.	Number of compensated accidents resulting in—			Amount of compensation.	
				Death.	Disability of over 4 weeks.	Disability of 4 weeks or less.	Total.	Per compensated case.
							<i>Crowns.</i>	<i>Crowns.</i>
1911.....	7,564	289	7,853	138	4,311	3,115	2,872,107 (\$769,725)	379.70 (\$101.76)
1912.....	8,808	321	9,129	116	4,665	4,027	2,820,703 (755,948)	320.24 (85.82)
1913.....	8,849	343	9,192	127	4,770	3,952	3,023,227 (810,225)	341.65 (91.56)
1914.....	8,697	336	9,033	129	4,857	3,711	3,176,553 (851,316)	365.25 (97.89)
1915.....	9,080	308	9,388	206	5,122	3,752	3,475,632 (931,469)	382.78 (102.59)

— *Statistiske Central Bureau. Statistisk Aarboek for Kongeriket Norge, 1917. Christiania, 1918. 12, 212 pp.*

This annual yearbook of the Kingdom of Norway presents the statistics usually found in such a publication. Of interest to labor are those sections dealing with social insurance, unemployment, employment exchanges, trade-unions, and employers' associations, strikes and lockouts, retail prices, and the cost of living. The latest data available are generally for the year 1916.

SWEDEN.—*K. Socialstyrelsen. Kooperativ Verksamhet i Sverige, Åren 1911-1913. Stockholm, 1918, 597 pp. (Sveriges Officiella Statistik, Socialstatistik.)*

According to the above report at the end of 1913 there were registered in Sweden 3,762 cooperative societies. Of that number 1,024 were cooperative consumers' leagues and 2,253 building associations of various kinds. At the same time there were registered 2,174 agricultural cooperative societies of various kinds, principally cooperative purchasing associations, 1,055 out of the 2,174 registered being of the latter kind.

The average annual sales of cooperative consumers' leagues amounted to 6.98 crowns (\$1.87) per inhabitant in 1913. The membership of this class of societies

numbered 85,358 persons at the end of 1910 and had increased to 112,694 at the end of 1913.

SWEDEN.—*K. Socialstyrelsen. Levnadskostnaderna i Sverige 1913-1914, Del II. Lokalmonografier- 6. Hälsingborg. Stockholm, 1918. 88 pp.*

This monograph forms one of a series of studies on the cost of living in the principal cities of Sweden undertaken by the official labor office. This particular monograph covers the city of Hälsingborg. The data covers the period 1913-1914.

SWITZERLAND.—*Schweizerischen Volkswirtschaftsdepartement. Berichte der schweizerischen Fabrikinspektoren über ihre Amtstätigkeit in der Jahren 1916 und 1917. Aarau, 1918. 240 pp.*

The annual report for the years 1916 and 1917 of the Swiss factory inspection service. For purposes of factory inspection Switzerland is divided into four inspection districts, and in the present volume the chief inspector of each district makes a separate report on general industrial and working conditions, the workrooms, accidents and trade diseases and measures for their prevention, workmen's lists, working regulations, wage payment, hours of labor, woman and child labor, enforcement of labor laws, and welfare measures. It is to be regretted that the four individual reports are not summarized and therefore can not be reviewed here. The volume contains, however, a few summary tables covering all Switzerland with respect to industrial accidents, trade diseases, permits for overtime, night and Sunday work, and fines imposed for contraventions of labor laws.

In industries carried on in factories the number of workmen employed in 1916 was 367,444 for which 25,021 accidents involving temporary disability, 2 involving permanent disability, and 82 ending fatally were reported. The accident rate per 1,000 workers was 60, and the total amount paid in accident compensations was 5,376,385 francs (\$1,037,642.31). The accident rates were highest in power and gas plants and waterworks (128), metal working (122.1), factories of machinery, apparatus, and instruments (119.9), and in factories working up stones and earths (119.7). The silk industry had the lowest accident rate (19). A total of 7,884 accidents were reported by nonfactory establishments (building trades, road and railroad construction, hydraulic and well construction, quarries, transportation, etc.), of which one involved permanent disability and 50 caused death. The total amount of compensation paid was 1,530,222 francs (\$295,332.85). A total of 72 cases of sickness and death from trade diseases was reported for 1916 as against 31 cases for 1915. Of this number 16 cases were caused by chlorine, 13 by hydrochloric acid and hydric fluoride, and 11 by carbonic oxide and carbonic acid. Six cases were fatal.

The number of permits granted in 1917 for overtime, Sunday, and night work shows a considerable increase as compared with 1916. A total of 819 fines, amounting to 26,018 francs (\$5,021.47), was imposed in 1916 and 1917 for contraventions of the factory law and the law regulating work on Saturdays.

The reports from all four inspection districts state that after the great industrial depression of the first two years of the present world war great and steadily increasing activity set in in 1916 and 1917 in the Swiss industries. This activity is only limited by the lack of certain raw materials and coal and by the scarcity and unrest of labor. High wages offered by some industries cause the workmen to change from one employment to another, and the turnover of labor is consequently abnormally great. One inspector reports that in a machine shop employing 55 men 110 workers were hired and left again between November, 1916, and February, 1917. Lack of foreign competition and great demand for manufactured products have caused the establishment in Switzerland of a number of new industries and have caused other industries that in prewar times barely managed to exist to prosper in an unprecedented manner. All the inspectors regret the intensive development of the munitions industry in Switzerland during the present war, for the reason that the high wages paid in this industry

cause the withdrawal of large numbers of skilled workers from legitimate peace industries and make factory hands of them.

SWITZERLAND (CITY OF BERNE).—*Verwaltungskommission des Arbeits- und Wohnungsamtes und der Versicherungskasse gegen Arbeitslosigkeit. Verwaltungsbericht für das Jahr 1917. Berne, 1918. 16 pp.*

This is the annual report for 1917 of the single administrative commission in charge of the varied activities of a public renting bureau, a public employment office, and a system of subsidized unemployment insurance for the city of Berne.

The commission reports that the strong influence of the war on the entire economic life makes itself felt also in the employment office. Those industries which at the beginning of the war were menaced in their existence have adapted themselves as war and munition industries, and simultaneously a large number of workers of both sexes have given up their original occupations and their skilled trades and have become factory hands. Calls to colors also cause always an increased demand for labor. The following table indicates the activity of the employment office in 1916 and 1917:

STATISTICS OF THE MUNICIPAL EMPLOYMENT OFFICE OF BERN, 1916 AND 1917.

	Vacant situations.		Applicants.		Situations filled.	
	1916	1917	1916	1917	1916	1917
Male.....	10,113	10,302	13,047	12,101	8,010	7,885
Female.....	5,517	5,713	5,078	5,629	2,571	2,530
Total.....	15,630	16,015	18,125	17,730	10,581	10,415
Female day laborers, laundresses and charwomen.....	2,957	3,834	2,949	3,807	2,949	3,807
Grand total.....	18,587	19,849	21,074	21,537	13,530	14,222

The municipal renting bureau received orders for the renting of 1,055 properties, and if to these are added 145 still vacant from the preceding year a total of 1,200 is made, of which 987 were dwellings. The number of properties rented was 714, or 59½ per cent of the total. The bureau also had on its renting list 777 furnished and 136 unfurnished rooms. Of the former 357 and of the latter 72 were rented.

In the unemployment fund the commission reports a membership of 670, a decrease of 60 as compared with the preceding year. Of the total number of members 462 were skilled and 208 unskilled workers. The fund was subsidized by the municipality with 20,000 francs (\$3,860) for the year 1917 and by the State with 16,452 francs (\$3,175.24), i. e., 25 per cent of the benefits paid by the fund in 1915 and 1916. The contributions from insured workmen amounted to 10,693 francs (\$2,063.75). Up to the end of the fiscal year 384 members, as against 429 in 1916, had received unemployment benefits. Of this total number 273 were skilled and 111 unskilled workmen. Skilled workers while unemployed received 3.5 francs (68 cents) daily if married, and 2.5 francs (48 cents) if single, while unskilled workmen were given 3 francs (58 cents) and 2 francs (39 cents), respectively. Only 12 of the insured members received benefits for the maximum period of 60 days. The total amount disbursed for cash benefits was 29,040.5 francs (\$5,604.82).

— (CITY OF ZÜRICH).—*Städtisches Arbeitsamt Zürich. Geschäftsbericht für das Jahr 1917. Zürich, 1918. 27 pp.*

The annual report for the year 1917 of the municipal employment office of the city of Zürich. The activities of the office during the five-year period 1913–1917 are shown in the following table:

STATISTICS OF THE ACTIVITY OF THE MUNICIPAL EMPLOYMENT OFFICE OF
ZÜRICH, 1913-1917.

Year.	Vacant situations.			Applicants.			Situations filled.			Transient and non-resident applicants.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
1913.....	7,200	3,315	10,515	13,925	2,642	16,567	5,713	2,124	7,837	9,682
1914.....	8,471	2,713	11,184	16,485	2,630	19,115	6,904	1,694	8,598	9,533
1915.....	10,286	2,096	12,382	14,599	2,891	17,490	7,645	1,538	9,183	3,582
1916.....	13,008	3,414	16,422	12,524	3,137	15,661	10,252	2,212	12,464	3,073
1917.....	12,906	3,504	16,410	11,323	2,647	13,975	9,904	2,008	11,912	2,550

The results for 1917 show a decrease of 12 in the number of vacant situations, of 1,686 in the number of applicants, and of 552 in the number of situations filled. The report ascribes this decrease to the great scarcity of labor, particularly in the building trades and the machinery industry, and to reduced operation in various industries owing to lack of raw materials. In addition to the vacant situations shown in the preceding table, 9,226 temporary situations for laundresses, charwomen, and female day laborers were registered and 9,089 of these were filled. According to the data shown in the preceding table the number of male and female applicants per 100 vacant situations was 87.7 and 75.5, respectively, and that of applicants of both sexes 85.1. Of the male applicants 6,402 were skilled workers, 675 agricultural workers, and 4,251 unskilled workers.

For the year 1917 the office received a State subsidy of 12,730 francs (\$2,456.89), a cantonal subsidy of 3,000 francs (\$579), and a subsidy of 750 francs (\$144.75) from the Zürich Cantonal Federation for the employment of unemployed for payment in kind (*Naturalverpflegung*). In addition the Central Office of the Swiss Employment Exchanges contributed 2,000 francs (\$386) to the costs of administration.

UNOFFICIAL.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *Annals*, vol. 78. *Mobilizing America's Resources for the War*. July, 1918. Woodland Ave. and 36th St., Philadelphia. 277 pp.

This volume contains a collection of papers on some of the most important questions now before the American people. The papers are grouped as follows: Part I. Mobilizing the population for winning the War. This section deals, in different articles, with the problems met in remodeling industry to meet war conditions; the questions involved in reducing the production of nonessentials in order to increase the output of essential products and to avoid the waste of prewar times; housing of the mobilized population; and employment of women. Part II. National health as a factor in national efficiency. These articles treat of the dependency of military health on the health of the civil population; the physician as a factor in national efficiency; the loss caused by preventable diseases; the relation of health insurance to national efficiency; and the methods used by various agencies to eliminate vice from camp cities. Part III. Labor efficiency in winning the War. This section comprises articles on the efficiency of labor; labor policies which are necessary if the War is to be won; the way England has met her labor problems; the fallacy of the cry "business as usual" during the War; and industrial reorganization and labor efficiency. Part IV. The making of a war budget. This section deals with methods of paying for the War; the Federal Reserve System; the fallacy of price bidding; and the need of a new budget system. Part V. The food problem. The subjects treated are food control

in relation to the European situation; the necessity for preparing for the great demand during the next two years on the food supplies of the United States; a statement of the wheat resources of the world; and the work of the Federal Food Administration. Part VI. The mobilization of the public mind. This section contains articles on public opinion in war time; the right of free speech; and the attitude of the public toward Congress.

AMERICAN SEAMEN'S FRIEND SOCIETY. *Seamen's Institute*. New York, Douglas C. McMurtrie, 1914. 28 pp. Illustrated.

Photographs with captions illustrating the facilities provided by the institute for the comfort and convenience of seamen, followed by statistics of work and finances, list of officers, and similar matter.

AUBURTIN, J. MARCEL, AND BLANCHARD, HENRI. *La cité de demain dans les régions dévastées*. Paris, Librairie Armand Colin, 1917. 317 pp.

A comprehensive study, under the title "The city of to-morrow in the devastated regions," of the problems surrounding the work of rebuilding the ruined towns and villages of France. The greater portion of the book is concerned with matters of architecture and materials, but Part 3 on "The execution of the work" contains a chapter on manual labor, which, it is stated, presents the gravest and most important of all the difficulties to be surmounted in the reconstruction of the devastated cities after the War. In order to meet the shortage of labor in the building industries, which is regarded as a certainty, three recommendations are made: That the Government make an investigation in order to ascertain the available labor in these industries before the War, and, by deducting the known loss due to the War, form some estimate as to the volume of this labor that may reasonably be expected when the cessation of the War makes rebuilding possible; that the Government make a parallel and more difficult investigation to decide upon the most urgent work to be done in the wrecked towns and villages; and that the Government make a final resort to colonial, and if this prove insufficient to alien, labor. The subjects of the simplification of labor, technical instruction and apprenticeship, vocational reeducation of disabled soldiers, the struggle against alcoholism, labor contracts, and colonial and alien labor are discussed. The latter part of the book is devoted to laws and regulations concerning the various matters previously discussed, including present laws and proposed reforms. The work has received the approval of the Society of Certified Architects (*Société des Architectes diplômés par le Gouvernement*) and the Dejean prize for 1916 from the Central Society of French Architects. Credit is given to M. Jaussely for the chapter on "A study of comprehensive plans."

BARTON, GEORGE EDWARD. *Convalescent clubs: A plan for rehabilitation*. Clifton Springs, N. Y., Consolation House. [1918.] [4 pp.] Illustrated.

A plan, illustrated with diagrams of buildings and grounds, for the organization of rehabilitation centers by the Consolation House Convalescent Club; also outline of the organization and purpose of the club, the activities of which are, at the moment, "necessarily limited to the cripples of industry," but the experience and organization of which, it is hoped, "may prove of value to the Federal Government, if the needs of the War are as great as is anticipated."

— *Leaflets*. Reprinted from *The Trained Nurse and Hospital Review*. *Occupational therapy*. March, 1915. [2 pp.] *Occupational therapy and the War*. July, 1916. [2 pp.] *Occupation and auto-inoculation in tuberculosis*. October, 1916. [9 pp.] *The movies and the microscope*. April, 1917. [Clifton Springs, N. Y.] [5 pp.]

Based on methods employed and results accomplished in occupational therapy at Consolation House, Clifton Springs, N. Y., a convalescent home which includes in its equipment a school, workshop, and vocational bureau for convalescents, and of which the author is director.

BAUER, STEPHAN. *Arbeiterschutz und Völkergemeinschaft*. Zürich, 1918. 157 pp.

In the midst of the present war, during which all the belligerent countries have temporarily abrogated some of the most important and fundamental protective labor laws, Dr. Stephan Bauer, director of the International Labor Office, raises, in the above volume, the question as to what legislative means the State and society in belligerent and neutral countries should adopt in order to increase the efficiency and obtain the good will of the working classes, which are essential in securing the heightened productivity necessary in the future to pay off the enormous war debts.

The volume reviews the international protective labor programs set up by the conferences of Leeds (1916) and Berne (1917). This is followed by an historical review of the international progress made in the various fields of labor legislation, such as the right to organize, collective agreements, migratory workers, social insurance, juvenile and female labor, hours of labor of adult men in mines, in establishments with continuous operation, and in other industries, regulation of wages, protection of home workers, Sunday rest, hygiene, colonial contract labor, and international agreements for the protection of labor. In an appendix is given the text of the labor programs of the conferences of Leeds and Berne, a chronological table of the history of the slave trade, and the text of the various international agreements concluded in Berne.

BERNACCHI, LUIGI, AND GUSMITTA, MARIO. *La conferenza interalleata per lo studio della rieducazione professionale e delle questioni che interessano gli invalidi di guerra*. Reprinted from the "Rassegna di Assicurazioni e Previdenza Sociale," vol. 4, No. 12. Rome, December, 1917. 43 pp.

A report by two Italian army surgeons on the Interallied Conference on the Vocational Reeducation of War Invalids held in Paris May 8-12, 1917. The report discusses the work of the conference, the exposition connected with it, and the visits to schools of reeducation. In four appendixes are given the resolutions adopted by the conference, a digest of the Italian law of March 25, 1917, on the protection and assistance of war invalids, and summaries of the work done in the interest of war invalids by the National Accident Insurance Fund and by the Italian Red Cross.

BRAWLEY, BENJAMIN. *Your Negro neighbor*. New York, The Macmillan Company, 1918. 100 pp.

Contains a chapter on "The Negro as an industrial factor," besides an historical review of the Negro in America, and a study of other aspects of the Negro in this country.

BUTCHER, GERALD W. *Allotments for all. The story of a great movement*. London, George Allen and Unwin Ltd., 1918. 96 pp. Price 2s. net.

CARTER, HENRY. *The control of the drink trade. A contribution to national efficiency, 1915-1917. With a preface by Lord D' Abernon*. London, Longmans, Green and Co., 1918. 323 pp. Illustrated.

This volume treats of the control by the State of the liquor traffic from the standpoint of labor, its purpose, according to the author's statement, being "to describe the action of the State respecting the drink question in the great war, alike in legislation and administration." Part I concerns the conditions before control; Part II, which forms the main portion of the book, is devoted to an account of the methods of State control and their results; and Part III contains an estimate of the influence of the board's work in diminishing drunkenness and the disease and mortality attributable to alcoholic indulgence, in increasing the efficiency of the national war services, and in the concomitant advancement of the general welfare. Appendixes contain various charts and diagrams and copies of laws concerning the control of the liquor traffic.

CHEMICAL DIRECTORY, ANNUAL, OF THE UNITED STATES. *Second edition, 1918.* Consulting editor, B. F. Lovelace; managing editor, Charles C. Thomas. Baltimore, Williams & Wilkins Company, 1918. 534 pp.

A comprehensive review of the rapid development of the American chemical industry, illustrative of its progress, and descriptive of numerous incidental factors upon which it is dependent. An endeavor has been made to list every chemical substance under its proper name, giving also the commonly used terms with cross references.

CLEVELAND (OHIO) SOCIETY FOR THE BLIND. *The blind in Cleveland.* Cleveland, 1918. 72 pp. Illustrated.

A general report on the work of the society which, while "not intended as a guide book for the rehabilitation of blinded soldiers * * * gives a very helpful outline of what can be done in a large city for those who lose their sight in the battle of life." A chapter on "Industrial work" gives an account of the efforts of the society to secure work for the blind, brief accounts of the various lines of industry carried on by it, and statistics showing occupations of the blind in Cleveland in 1917.

EXECUTIVE CONTROL. *Building up the organization—Selecting and training men—Reorganizing under scientific management—Establishing written standard practice—Management duties, decisions and policies.* Chicago, A. W. Shaw Company, 1916. 216 pp. Illustrated. *The Factory Management Series.*

FEDERATION OF BRITISH INDUSTRIES. *Industrial councils. Recommendations on the Whitley Report put forward by the Federation of British Industries.* London, S.W. 1. 39 St. James Street, August 3d, 1917. [4 pp.]

A digest of this leaflet appears on pages 44 to 47 of this issue of the MONTHLY LABOR REVIEW.

— *List of members to 8th May, 1918.* [London, 1918.] 78 pp.

— *Rules.* [As amended at a special general meeting, 2d March, 1917.] London, [1917.] 20 pp.

— *Two pamphlets: The year's work, 1917; Supplement to the year's work, January, 1918.* London, S. W. 1., 39 St. James Street, 1918. [11 pp. and 7 pp.]

FELT, DORR E. *Organized charities and social welfare work from the viewpoint of an employer.* [Chicago, 1918.] 14 pp.

FITCH, JOHN A. *Making the job worth while. The work of the employment manager, bonuses, and vacations in maintaining a steady work force.* (Reprinted from the *Survey of April 27, 1918.*) [New York, 1918.] 4 pp.

GENERAL SERVICE BOARD OF DELAWARE. *Report of the organizing committee. Civic and social welfare. 1914-1915. A program for the study and development of civic and social questions in Delaware and a brief survey of present practices, conditions, and progress in this State.* Edition A. [1915.] 146, xi pp.

This edition also contains the report of the secretary to the committee on field work through the eastern and middle western States.

GROSSIER, A. *La convention collective de travail.* Paris, H. Dunod & E. Pinat, 1913. 405 pp. *Encyclopédia Parlementaire des sciences politiques et sociales.*

A study, by the reporter of the labor commission, of collective agreements in France and other countries up to 1913. The six general divisions deal with The origin of collective agreements; The development of collective agreements; Collective agreements in foreign countries—Great Britain, the United States, Germany, Austria, Belgium, Switzerland, the Netherlands, Denmark, Sweden, British colonies; Proposed laws, and decisions regarding collective agreements; Legal aspects; and The future of collective agreements.

HALCROW, J. B., F. R. G. S. *Tracts for the times. No. 1, Imperial democracy and united empire: An "after-the-war" program.* London, 1917. 8 pp. Price 1d.

— No. 2, *The commercial future and its relation to labor and capital.* London, 1918. 16 pp. Price 4d.

HALL, A. D. *Agriculture after the War.* London, John Murray, 1917, 137 pp.

An argument for the increased domestic production of food and the greater employment of men upon the land as essential to the security of Great Britain, and independent of the particular interests of either landowners or farmers. The book is based upon views which have been previously printed, to a considerable extent, as evidence before departmental committees appointed by the president of the board of agriculture. Chapters deal with Our dependence upon imported food, The decline of British agriculture, Arable land versus grass, Possible developments, The capacity of the land for food production, The dependence of arable farming upon prices, What action is practicable, and Summary and conclusion. Five direct methods of action by the State are analyzed as possible developments calculated to bring about the desired intensification of agriculture: Industrialized farms, or the organization and management on the exact lines of business enterprises of large farms of 2,000 to 10,000 acres—this idea being developed in detail; small-holding colonies, of which the advantages and disadvantages are itemized; the intensification of agriculture under the current system; the reclamation of land; and subsidiary agricultural industries. The author, however, believes that two measures should be applied without waiting for the end of the War, namely the guaranty of either a maximum price for wheat or a payment for the extension of the arable area, for a period of from 5 to 10 years; and the getting under way of schemes for the reclamation of all the waste land that offers any prospect of profitable development.

HELEN S. TROUNSTINE FOUNDATION. *Blindness in Hamilton County [Ohio]. Cincinnati, Sept. 1, 1918. Studies from the Helen S. Trounstine Foundation, Vol. 1, No. 3. Cincinnati, Sept. 1, 1918. Pp. 63-109.*

This is a summary of the activities, laws, and statistics relating to blindness, with special reference to the administration of the law regulating "the relief of the needy blind," by Dr. Louis Stricker, director and clerk for blind relief to the county commissioners, Hamilton County, Ohio.

HILL, DAVID SPENCE. *Educational research work in New Orleans. Reprinted from the Journal of Delinquency, Volume 3, No. 3, May, 1918. pp. 132-136. Whittier, Cal.*

Contains a brief history of the Division of Educational Research, which was an outgrowth of the Tulane University-Board of Education Study, from its organization in 1912 up to its passing; an account of its work for the last year; and a list of printed reports and activities, 1913-1916. The work of the division is of special interest in the fact that historically its establishment by the municipal ordinance of July, 1913, was the creation of the first institution for educational research in this country, supported by public funds and in connection with the public school system, which has undertaken simultaneously the following different types of study: Extensive analysis of local industries and occupations with reference to education; comparative studies of trades and special schools throughout the country; statistical and group analysis—complete "child-accountings"; individual studies of exceptional children through the participation of psychologist, physician, teacher, parent, and social investigator, by means of a successful, cooperative procedure; measurements of achievements in school subjects—reading, arithmetic, and spelling, and standardization of scores; instruction of prospective teachers in methods of measurements; special studies of delinquent boys; special studies of supervision and of textbooks; quantitative studies, through personal investigation, of the causes of elimination.

HOFFMAN, FREDERICK L. *Army anthropometry and medical rejection statistics.* Newark, N. J., Prudential Press, 1918. 114 pp.

This pamphlet is a consolidation of papers read before the National Academy of Science, Philadelphia, Nov. 21, 1917, and the American Statistical Association, Philadelphia, Dec. 28, 1917, revised and brought down to date. The subject matter is presented in two parts: General army anthropometry, and Recent United States Army medical and rejection experience data.

ILLINOIS (CHICAGO) AND COOK COUNTY PUBLIC SAFETY COMMISSION. *Things you must know for safety. Safety first.* Chicago, Otis Building, 1915. 177 pp. Illustrated. Price 25 cents.

INDUSTRIAL WORKERS OF THE WORLD. *Organized July 7, 1905. Preamble and constitution. As adopted 1905 and amended by conventions and ratified by referendum votes, 1906, 1907, 1908, 1910, 1911, 1912, 1913, 1914, 1916.* Chicago, 1001 West Madison Street. 32 pp.

INTERALLIED CONFERENCE ON THE AFTER-CARE OF DISCHARGED SAILORS AND SOLDIERS. *Cinema film and booklet of photographs of the Pilkington Special Orthopedic Hospital, St. Helens, Lancashire. Prepared for the Interallied Conference Westminster, May, 1918. Bolton [England]. Tillotson & Son, Ltd., 1918. [21 pp.] Illustrated.*

Photographs with captions and a list of cinema films of the hospital equipment.

INTERALLIED EXHIBITION ON THE AFTER-CARE OF DISABLED MEN. *Central Hall, Westminster, May 20 to 25, 1918. Catalogue. London, 1918. 100 pp. Price, 1s.*

INTERNATIONAL LONGSHOREMEN'S ASSOCIATION. *Constitution, rules for locals, and rules of order. Amended at Toledo, Ohio, July, 1917. [Toledo, 1917.] 34 pp.*

JOINT BOARD OF SANITARY CONTROL. *The union dental clinic. A cooperative, self-supporting modern dental clinic for the members of the International Ladies' Garment Workers' Union, established by the Joint Board of Sanitary Control in the Cloak, Suit, and Skirt and the Dress and Waist Industries. New York City, 1918. [7 pp.] Illustrated.*

Contains statement of the equipment, kind of work done, charges, expenses, and problems of the clinic, in which, since its opening, May 7, 1917, to December 31, 1917, 958 patients received 3,930 treatments.

KENNEDY, BART. *Soldiers of Labour.* London, Hodder and Stoughton, 1917. 114 pp. Illustrated.

A popular account of some of the industrial and agricultural work necessitated by the War, set forth with the view of emphasizing the importance of the work and of the workers.

KRUG, ALFRED. *Pour la repopulation et contre la vie chère.* Paris, Berger-LeVrault, 1918. 304 pp.

Two parts, with a preface by Ed. Herriot, the mayor of Lyons, make up this volume on Repopulation and Against Extravagant Living. The first part is devoted to depopulation and repopulation; and the second to the subject of the land, including a study of agricultural instruction in France and Germany, agricultural industries, hand work and machine work in agriculture, the cooperation of agriculture and industry, and related matters.

LABOR PARTY. *Agenda of resolutions on reconstruction and amendments to be discussed at the party conference on June 26, 1918, and two following days, together with nominations for party executive and officers.* London, 1918. 23 pp.

LAMBERT, UVEDALE. *Rural housing conditions and the "tied cottage." A suggestion for practical treatment by Government.* Earleswood, Redhill (England), W. Smith, 1918. 8 pp. Price 3d.

LEE, FREDERIC S. *The Human Machine in Industry. Reprinted from the Columbia University Quarterly, Vol. XX, No. 1, January, 1918. New York, 1918. 10 pp.*

MCMURTRIE, DOUGLAS C. *Aidons les mutilés de la guerre à devenir de bons ouvriers de métier.* New York, Red Cross Institute for Crippled and Disabled Men. 5 pp.

An argument in favor of assisting disabled soldiers to become skilled artisans. The booklet is published in uniform style in nine languages besides the French.

METROPOLITAN LIFE INSURANCE COMPANY. *The health of food handlers. A cooperative study by the Department of Health, the Metropolitan Life Insurance Company, and the American Museum of Safety. Report prepared by Louis I. Harris, Director, Bureau of Preventable Diseases, Department of Health, and Louis I. Dublin, Statistician, Metropolitan Life Insurance Company.* [New York, 1917.] 22 pp.

Gives the results of 1,980 physical examinations in the New York City Department of Health in 1915 and 1916. The report was originally printed in Monograph Series, No. 17, of the Department of Health of the City of New York, August, 1917.

— *The relation of cancer to economic conditions. The incidence of cancer in the ordinary, intermediate, and industrial departments of the Metropolitan Life Insurance Company, compared.* By Augustus S. Knight and Louis I. Dublin. New York, 1917. 10 pp.

Tables show cancer claims by age period and sex in the three departments, and in the discussion the following conclusions are reached: 1. The current opinion that there is a positive correlation between poverty and a low cancer rate is in all probability unfounded. 2. The cancer rate increases as we go down in the economic scale. 3. This is true for both sexes and by age period where sufficient data are available. 4. The conclusion drawn from the figures is not conditioned by the effect of varying amount of medical selection in the three groups considered. 5. Medical selection against cancer is most effective in the ordinary department and is limited to the earlier ages and to the early years of issue. 6. In both ordinary and intermediate departments the effect of medical selection against cancer is limited to the first and, perhaps, the second year of issue.

— *Visiting nursing and life insurance. A statistical summary of results of eight years.* By Lee K. Frankel and Louis I. Dublin. New York, 1918. 55 pp. Reprinted from the quarterly publications of the American Statistical Association, June, 1918.

The report gives through statistics the results of eight years of public health nursing for industrial policyholders of the company; also the present status of the visiting-nurse service.

MYERS, DUDLEY B. *The training and employment of disabled sailors and soldiers at Queen Mary's Convalescent Auxiliary Hospitals, Roehampton.* Roehampton House, 15th May, 1918. 4 pp. Table.

Brief sketch of the history and work of the hospitals, together with a table giving a statistical analysis of the applications for training received up to April 30, 1918, by trade, according to which 2,103 applications for training were received in 65 occupations. Up to April 30 about 12,000 men, exclusive of officers and overseas outpatients, had been discharged from the hospitals fitted with artificial limbs, of whom 11,000 were handled on an industrial basis. Forty-six per cent of the men returned to their own employments, while training or employment involving in most cases an entire change of vocation was arranged for 21 per cent, the remaining 33 per cent being passed on to local committees.

NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS. *Transactions of the twelfth annual meeting, Washington, D. C., May 11-12, 1916.* New York, 105 East Twenty-second Street, 1916. 517 pp.

Housing and tuberculosis, by Lawrence Veiller; Health insurance, by John B. Andrews; and Present status of medical examination of employees, by Harry E. Mock, M. D., are the subjects of papers which, with the accompanying discussions, are of special interest to labor.

NATIONAL CANNERS' ASSOCIATION. *Canners' directory and lists of members of the Canning Machinery and Supplies Association and the National Canned Foods and Dried Fruit Brokers' Association.* Washington, 1739 H Street NW., 1918. 196 pp.

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES. *Addresses and proceedings of the fifty-fifth annual meeting, held at Portland, Oreg., July 7-14, 1917.* Vol. LV, Washington, 1917. 864 pp.

Besides the general sessions and those of the National Council of Education the volume is devoted mainly to the addresses in the various special departments, of which the department of vocational education and practical arts is of special interest. Addresses in this department include the subjects of Vocational guidance, a distinct function of the public school; Training of girls and women for trade and industry; The training of teachers for vocational schools; Industrializing the manual arts; and other phases of vocational training.

NATIONAL EFFICIENCY SOCIETY. *Labor—as affected by war.* New York, 119 West Fortieth Street, 1918. 120 pp. *National efficiency quarterly.* Vol. 1, No. 2. August, 1918.

Contains a message from Gen. William Crozier; Men and management; A record of accomplishments; Labor's part in warfare; Some labor problems in aircraft production and possible solutions; The present labor situation; Labor after the war; Socialistic and labor problems from the efficiency point of view; Arousing the interest of the employee; The personnel department as a solution of present-day labor problems; Economic saving of human resources; The office through a microscope; and Book reviews.

NATIONAL FOREIGN TRADE COUNCIL. *World trade conditions after the war. An analysis of the preparations England, France, and Germany are now making to extend their foreign trade.* New York City, India House, Hanover Square, April, 1918. 72 pp.

NATIONAL HARBOR OF THE AMERICAN ASSOCIATION OF MASTERS, MATES, AND PILOTS OF THE UNITED STATES OF AMERICA. *Constitution and rules of order, adopted at the regular voyage held in Washington, D. C., February 19 to 24, 1917.* [Washington, 1917.] 49 pp.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Wartime changes in the cost of living.* Boston, 15 Beacon Street, 1918. 81 pp.

Figures gathered from various official sources brought together to indicate the changes in the cost of living during the war. The following increases from July, 1914, to the middle of June, 1918, are noted:

Food.....	62 per cent.
Rent.....	15 per cent.
Clothing.....	77 per cent.
Fuel and light.....	45 per cent.
Sundries.....	50 per cent.

— *Wartime employment of women in the metal trades. Research report No. 8.* Boston. 79 pp. July, 1918.

This report is summarized on pages 192 to 196 of this issue of the MONTHLY LABOR REVIEW.

NATIONAL INSTITUTE FOR THE BLIND. *St. Dunstan's Review.* Vol. II, Nos. 22, 23 (May, June, 1918); Vol. III, No. 24 (July, 1918). London, W. 1.

This is a monthly publication issued "For the amusement and interest of men blinded in the War."

NATIONAL SAFETY COUNCIL. *Safe practices.* Vol. 1, Nos. 11-14. [1918.] Chicago, National Safety Council. 8 pp. each.

"Being an orderly presentation in loose leaf form of accident hazards and the best practices for their elimination." Number 11 deals with floors and flooring, No. 12 with scaffolds (for industrial plant use), No. 13 with grinding wheels, and No. 14 with goggles.

NEW TOWNS AFTER THE WAR. *An argument for garden cities by New Townsmen.* London, 1918. 84 pp.

NEWTON, ISABEL G. *Consolation House. Reprinted from The Trained Nurse and Hospital Review, New York. December, 1917. 6 pp.*

Account of the purpose and work of Consolation House, Clifton Springs, N. Y., by its secretary.

OFFICINA NAZIONALE DI PROTESI PER I MUTILATI IN GUERRA. *Gorla 1° (Milano)* Un apparecchio da lavoro per mutilati di arto superiore. Milan, Alfieri & Lacroix. 1918. 14 pp. Illustrated.*

Description, with illustrations, of "a mechanical substitute for a lost hand," for which the National Artificial Limb Factory at Gorla 1, near Milan, received the first prize in an exhibition held, in January last, by the Central Committee for Industrial Mobilization.

ORWIN, C. S. *The determination of farming costs. Oxford, The Clarendon Press, 1917. 144 pp.*

The report of an investigation of farming costs, undertaken by the Institute for Research in Agricultural Economics of the University of Oxford, under the direction of the author, who is director of the institute, and in which all members of the institute participated. An appendix contains an extensive annotated bibliography of literature relating to agriculture.

PHILADELPHIA HOUSING ASSOCIATION. *Housing in Philadelphia, 1917. [Philadelphia, 1917.] 26 pp.*

Comprises the seventh annual report of the activities of the Philadelphia Housing Association, and covers the year 1917.

RECONSTRUCTION OF INDUSTRY. *Report prepared after a series of conferences of Plymouth and Cornish citizens who were also employers and trade-unionists, held at Plymouth in March and April, 1918. Also rules of the Devon and Cornwall Association for Industrial and Commercial Reconstruction. London, E. C. 4, The Argus Printing Company (Ltd.), 1918. 28 pp. Price 3d.*

This report is noted on pages 51 to 54 of this issue of the MONTHLY LABOR REVIEW.

RED CROSS INSTITUTE FOR CRIPPLED AND DISABLED MEN. *Provision for the reeducation of Belgian war cripples. by Gladys Gladding Whiteside. Publications. Series 1, No. 15. New York, 311 Fourth Avenue, July 17, 1918. 11 pp.*

— *Opportunities for the employment of disabled men. Preliminary survey of the piano, leather, rubber, paper goods, shoe, sheet-metal goods, candy, drug and chemical, cigar, silk, celluloid, optical goods, and motion picture industries, prepared by the Department of Industrial Survey of the Red Cross Institute for Crippled and Disabled Men under the direction of Helen E. Redding. Publications. Series 1, No. 16. New York, 311 Fourth Avenue, July 24, 1918. 33 pp.*

A review of this number of the series appears on pages 66 to 69 of this issue of the MONTHLY LABOR REVIEW.

REVEILLE. *August, 1918, No. 1. Published by His Majesty's Stationery Office, London. Price. half a crown (about 60 cents) net.*

"Reveille" is the new name of the quarterly *Recalled to Life*. According to its editor, Mr. John Galsworthy, it is a "review of all that is being done for the disabled soldier and sailor. * * * Its purpose is to reveal what the work of restoration means, to those who are being restored, to those restoring them, but even more—to the nation at large."

RÉVILLE, MARC. *Enseignement technique et apprentissage. Paris, H. Dunod & E. Pinat, 1913. 397 pp. Encyclopédie Parlementaire des sciences politiques et sociales.*

A detailed study of the facilities for technical instruction in the industrial and commercial sciences, arts, and trades afforded by the schools and apprentice systems of France and other European countries prior to 1914, with a summing up of improvements which might be made, followed by the French laws and regulations concerning technical education.

SCHOOL OF SOCIAL WORK AND PUBLIC HEALTH, RICHMOND, VA. *The first year. Selected newspaper articles and editorials reviewing the work of the school and its accomplishments during its first year. Richmond, Va., June 24, 1918. 14 pp.*

The work of the school was along three lines: The training of public health nurses; the training of workers for paid positions in professional social work, such as child welfare and juvenile court work, protective work for girls, industrial welfare work, settlements, neighborhood and recreational work, traveler's aid, etc.; and short emergency courses for the training of women for volunteer service in their home communities.

SPARKES, MALCOLM. *A memorandum on self-government in industry, together with a draft for a builders' national industrial parliament. London, Harrison and Sons. [1918.] 28 pp.*

This pamphlet is reviewed on pages 54 to 61 of this issue of the MONTHLY LABOR REVIEW.

WEEKLY UNDERWRITER. *Live articles on special hazards. A series of articles reprinted from the monthly fire insurance supplement of the Weekly Underwriter. New York, The Underwriter Printing and Publishing Company. No. 6, 1914-15. 134 pp. No. 7, 1915-16. 134 pp. No. 8, 1916-17. 173 pp. No. 9, 1917-18. 167 pp. Illustrated. Price, \$1.05 each.*

Each volume contains articles by various authors on fire hazards in the use of special apparatus, in particular industries, and allied subjects.

ZÉBITCH, MILORADE. *La Serbie agricole et sa démocratie. Paris, Librairie Berger-Levrault, 1917. 82 pp.*

This little volume on agricultural Serbia and its democracy is an exposition of the agricultural situation of the country at the beginning of the war and a study of means for reconstructing and bettering it after the conclusion of peace.

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.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917. [In press.]

Employment and Unemployment.

- Bul. 109. Statistics of unemployment and the work of employment offices in the United States.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States.
- Bul. 247. Proceedings of the Employment Managers' Conference, Rochester, N. Y., May 9, 10, and 11, 1918. [In press.]

Women in Industry.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 117. Prohibition of nightwork of young persons.
- 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. 122. Employment of women in power laundries in Milwaukee.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 175. Summary of the report on condition of woman and child wage earners in the United States.
- Bul. 176. Effect of minimum-wage determinations in Oregon.
- Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 193. Dressmaking as a trade for women in Massachusetts.
- Bul. 215. Industrial experience of trade-school girls in Massachusetts.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.

Workmen's Insurance and Compensation (including laws relating thereto).

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
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