

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
ROYAL MEEKER Commissioner

MONTHLY
LABOR REVIEW

VOLUME VIII

NUMBER 1



JANUARY, 1919

119868

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

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MONTHLY LABOR REVIEW

VOL. VIII—NO. 1

WASHINGTON

JANUARY, 1918

RELATION OF COST OF LIVING TO THE PUBLIC HEALTH: A STANDARD MINIMUM OF HEALTH BUDGET.

BY ROYAL MEEKER, U. S. COMMISSIONER OF LABOR STATISTICS.

[Paper delivered before the American Public Health Association, Chicago, Dec. 11, 1918.]

The attention of everybody is and has been for many months centered on the cost of living. What has been the effect of high prices upon the health and welfare of the people? The correct answer to this question depends upon four things: First, is the accepted assertion that Americans overeat, overdress, overhouse, and overheat themselves true? Second, have living costs increased more rapidly than money wages, or, more accurately, money earnings? Third, if money earnings have increased more than the prices of articles consumed by the majority of our people, how have the surplus earnings been disposed of? Have these surplus earnings led to extravagant and unhealthful consumption or have they benefited the health of the workers by enabling them to buy necessities which formerly were beyond their incomes, or have these surpluses been saved and added to the loanable funds in banks and to the permanent productive wealth of the country? Fourth, if the rise in money earnings has not kept pace with the rise in the cost of living, thus causing a fall in "real wages," has the consequent curtailment in expenditure resulted detrimentally to the health and well-being of the people, or has it merely cut out waste, extravagance, gluttony, and other health-destroying forms of vicious squandering, thus benefiting the health and morals of our people?

I need not remark that the asking of these questions is easier than the answering of them. The manufacturer gives one answer, the industrial worker another, the salaried man still another. No categorical answers to these questions are possible, but some light is shed on these difficult questions by the cost-of-living studies made and being made under my direction by the Bureau of Labor Statistics. Since the classic cost-of-living study made by the Bureau of Labor Statistics in 1901, which was published in 1903 as the Eighteenth Annual Report of the Commissioner of Labor, no country-wide study of this subject has been made, although several local studies have been made by private citizens, municipalities, and at least two States. I have repeatedly asked Congress for an appropriation to enable me to make a country-wide cost-of-living survey, but my

estimates have not been approved. If such a study had been made in 1913 and 1914, it would have been invaluable as a basis for making wage adjustments in war industries and Government plants during and after the war in accordance with changes in the cost of living. After much importunity Congress voted \$6,000 to the Bureau of Labor Statistics for the fiscal year 1916-17 to make a cost-of-living study in the District of Columbia. This study was completed in 1917, and summaries of results have appeared in the MONTHLY REVIEW¹ of the Bureau of Labor Statistics for October, November, and December, 1917, and January, February, March, April, and September, 1918.

After our entrance into the war it became apparent that the demands of workmen for increased wages on the ground of increased cost of living could be dealt with intelligently only by securing figures showing the increases in the cost of living. The Labor Adjustment Board of the Emergency Fleet Corporation was the first wage board to understand the need for such information. At the request of this board President Wilson granted \$25,000 to the Bureau of Labor Statistics for the purpose of making cost-of-living studies in Atlantic and Gulf shipbuilding centers. These studies proved so useful that later the President made an additional grant to extend the studies to include the Great Lakes and Pacific coast regions. These studies have been invaluable to the Labor Adjustment Board in making just wage decisions. Brief summaries giving the more essential facts of living expenses and changes in prices and costs have been published in the MONTHLY LABOR REVIEW from time to time.

The results of the studies in shipbuilding centers proved so valuable that in July, 1918, the President allotted to the Bureau of Labor Statistics the sum of \$300,000 for making a country-wide study of cost of living. The schedules were very carefully revised and made considerably more detailed so as to show differences between cities in the quantities and costs of the more important articles consumed by workers' families. Changes in retail prices in the cities surveyed are to be obtained every six months. Nearly all important industrial cities of the country are to be studied as also a number of representative small industrial and mining towns. It is intended to get differences in prices as between large and small towns. This study is now proceeding rapidly, and I feel confident that when completed it will give us by far the most complete and trustworthy information to be found anywhere about the cost of different items of consumption in workers' families and the adequacy of expenditures for the different items by such families in different income groups.

¹ Name changed to MONTHLY LABOR REVIEW in July, 1918.

Perhaps the most important result of this study will be the furnishing of the facts which are essential for drawing up standard family budgets which will show the quantities and kinds of food, clothing, house room, fuel, lighting, house furnishings, medical and surgical service, insurance, schooling, street-car fares, amusements, vacations, newspapers, books, music, and sundries necessary to maintain workingmen's families of different sizes and different social standards in decency and health and in health plus comfort.

The cost-of-living studies thus far made merely show what families bought and how much they paid for what they got. Except for food, very little attempt has been made to ascertain whether the average family consumes too much or too little of any article or class of articles. Analysis of the food budgets of the families included in the studies in the District of Columbia and in the shipbuilding centers shows that scarcely a family had a well-balanced ration. In a great many instances the family dietary could be greatly improved and the money expenditure considerably reduced by the expenditure of more gray matter in buying and preparing food. Very few workingmen's families are as well fed as they should be and could be with their present incomes. We need standard budgets for the guidance of domestic scientists, visiting nurses, doctors, and public health officials.

The Eighteenth Annual Report of the Commissioner of Labor Statistics shows that the average expenditure of families with incomes of \$1,200 was \$1,200. The latest studies of the Bureau of Labor Statistics show the same expenditure for the same income group. What does this mean? Nothing more than this: The average workingman's family spends practically all it makes. An analysis of the different items of expenditure gets us but little further. More is spent by the worker's family to-day for clothing than in 1901. Is the family better clothed? Perhaps that question can not be solved. But the question of the relative influence on family expenses of the higher costs of living and of the costs of higher living can and should be answered. The only way this can be done is by means of a standard budget expressed in terms of quantities of goods and services, not by money costs, during the year. If we find that the standard quantitative budget costs \$1,440 now, while the same budget at the prices prevailing in December, 1917, cost only \$1,200, we know that there has been an increase of 20 per cent in the cost of living. If the average expenditures of families in Chicago have increased in the same year from \$1,050 to \$1,365, or by 30 per cent, we know that 10 per cent of this increase is due to additions to the average family budget. By examining the individual family schedules we could determine which families are still below the reasonable standard of healthful and decent living, which families had attained this standard,

which were spending more than sufficient to maintain a proper standard and whether additional expenditures were made wisely or unwisely, economically or extravagantly. The idea of standardizing the family budget may appear impossible of realization. Certainly it is impossible to work out such a standard budget to the minutest detail. It is certain that much more can be done than has been done. A sufficiently accurate working approximation can be reached if we set our minds to it. Even if the task seems impossible, it must be done for the sake of industrial peace and the health and welfare of our working population.

Several standard budgets must be formulated so as to give a reasonable recognition to likes and dislikes, personal and family idiosyncrasies in consumption, and to reflect generally accepted differences in standards of life. Such standard budgets can not be successfully worked out by a group of domestic scientists, dietitians, social workers, and physicians sitting around a conference table. The quantities and kinds of the articles and services actually consumed by workingmen's families must be taken as the basis for these budgets.

The budget must, so far as possible, give the amounts of the principal articles or items of consumption necessary for decent and healthful living. Items and articles expressed in terms of money are useless for the determination of either the sufficiency of the budget or changes in the cost of a sufficient budget. A man does not subsist on dollars and cents. Accurately speaking, he does not live on pecks of potatoes, loaves of bread, pounds of meat, quarts of milk, etc. He lives on the energy stored in food, which energy is measured in heat units called calories. The different kinds of food have been analyzed and the average energy content calculated in calories. Unless the average worker's family is buying and consuming about 3,000 or 3,500 calories per day per equivalent adult male, it is not getting enough food, regardless of how many loaves of bread it eats and how many dollars it spends for food. It is greatly to be desired that in future the price of food sold at retail may be expressed in terms of calories, just as coal is sold in Great Britain, not by the ton, but by the calculated British thermal unit. It is both possible and practicable to express cabbage, corn, eggs, beef, fat pork, sugar, flour, etc., in terms of calories per pound. If ever this method of measuring food values instead of mere food amounts is adopted it will be necessary to teach the American people that man can not live by calories alone, but must make provision for a proper balance in the different kinds of food, namely, proteins, fats, carbohydrates, sugars, minerals, acids, and cellulose tissue. Minerals, acids, and cellulose tissue must be classed as food,

even though they do not actually go into the bodily tissues or furnish heat or energy.

The housing experts can now lay down reasonably approximate standard requirements for housing for the typical family of husband, wife, and three children under 14 years. The barest minimum of decency and health calls for a dwelling for such a family of not less than four rooms. A kitchen-dining room, a living room, which can be used for a sleeping room by one of the children, and two large, well ventilated and lighted bedrooms, seem to me an irreducible minimum for decent, healthful living for this typical family. The District of Columbia study shows that 72 per cent of the families had an average of one person or less per room, indicating that the number of rooms was adequate. The bureau's study into company housing also showed a very satisfactory average of persons per room, but revealed some most indecent conditions of overcrowding, especially in certain mill villages. If the average man does not exist, the average room is even more of an abstraction. The standard budgets must prescribe requirements as to windows, lighting, ventilation, and air space.

The amount of fuel required for cooking and for heating the standard four-room house can be stated approximately in terms of British thermal units. The amount and kind of fuel required varies greatly in different geographical divisions. Prof. W. F. Ogburn, of the State University of Washington, has made some very accurate calculations of the fuel requirements for the typical family in Washington, D. C., making use of the information contained in the family schedules secured by the Bureau of Labor Statistics. Similar calculations must be made for other cities with different climatic conditions.

We have no recognized units of consumption, however, for the other items and articles that constitute the family budget. We can not measure the adequacy of clothing in calories or any other objective unit. Even if we could that would not be an acceptable unit of measure, because appearance and style are of such great importance in estimating the adequacy of clothing other than work clothes. No suitable unit of measure for style and appearance exists. The best we can do is to find the kinds of underclothes, shirts, socks, stockings, suits, hats, overcoats, dresses, waists, shoes, and other clothing worn by the families of workingmen, ascertain the life-time of the different articles, and from these facts estimate the quantity of standard articles of clothing necessary to clothe the typical family decently and healthfully. Much the same procedure must be followed to get at the quantity and quality of house furnishings necessary to health and decency.

In the budget studies up to the present, much that is most significant is buried in the class called sundries or miscellaneous. In the bureau's studies in shipbuilding centers and in the District of Columbia, for example, nearly 25 per cent of all expenditures are lumped as miscellaneous. Next to food this is by far the most important class of expenditures. The cost of the more important items composing miscellaneous expenses was obtained, but we made no attempt to get the quantities of articles and services making up this very important class because of the necessity of haste to complete the studies.

Of the miscellaneous items, by far the most important in its bearing upon health and welfare is medical and surgical services. As yet no sufficient information exists upon which to base an estimate of the kinds and quantities of medical and surgical services required by the typical family. The cost of such services affords no criterion by which to judge of the adequacy of the treatment received, because there is so much subsidized and free hospital and dispensary service available and because the standard treatment in workingmen's families is to let the sufferer suffer or to mitigate or aggravate his sufferings by doses of patent medicines. When a physician is called, about all the service left for him to perform is to make out the death certificate. The only way the needs for medical and surgical service can be obtained is by getting the number of days each member of every family was sick for the year. It was entirely out of the question to get this information in the cost-of-living studies made. Fortunately, several of the health insurance commissions of the country have gathered considerable information about the amount of sickness in workingmen's families. This information will be of great value in determining the minimum quantity of medical and surgical services necessary to the health and welfare of the typical workingman's family.

Next in importance to medical care, among the miscellaneous items, comes insurance. What kinds of insurance should be purchased by the typical worker's family and how much? All just men will agree that the workingman's family should be adequately protected against the hazards of sickness, accident, invalidity and old age, unemployment, and death. But how shall we judge what is adequate? Workingmen now pay about as much as they can afford for insurance but they don't get anything like sufficient protection from the inevitable hazards of life. I see no possibility of workingmen's families securing sufficient insurance protection until we come to the only sane and sensible way of conducting the communal business of insurance—as a community affair for the benefit of the community as a whole—by eliminating private competitive profit taking from the business and making it universal in its application.

Pending the enactment of laws providing for universal and exclusive communal insurance against the hazards enumerated above, we must include in the standard budgets an amount of life insurance for the head of the family sufficient to tide the family over a period of at least one year in case the bread winner should die. This doesn't appear to be an extravagant margin of safety for the family. It calls for real life insurance, and not the high-priced imitations so often sold under that name. The need for real insurance is felt with even greater force in case of the wares offered by the so-called casualty and health insurance companies. The standard budgets should provide for weekly benefits in case of disability from sickness or accident large enough to enable the life of the family to be carried on without any serious fall in standard. A like degree of protection should be afforded in case of invalidity and old age and unemployment. It does not, however, appear practicable at the present time to provide for the minimum protection against accident, sickness, invalidity and old age, and unemployment. For the most part, insurance against the hazards of sickness and accident is provided only by private insurance companies competing vigorously with each other for the profits in the business. The cost of writing and renewing such insurance and collecting premiums makes the price excessively high, while the protection afforded is utterly inadequate. Even in the States having compensation laws with State insurance funds, the protection is grossly inadequate, as so many workmen are excluded from workman's compensation, and the compensation covers only industrial accidents and, in only two States, industrial diseases.

The great fields of disease and nonindustrial accidents are thus left to private enterprise, except for the very insufficient activities of trade-unions and mutual associations. The situation is even more unsatisfactory as to invalidity, old age, and unemployment. Only a very few trade-unions seem to be aware that these inevitable eventualities exist. Aside from life insurance, then, we are at present wholly unable to include in the standard budgets the minimum amount of protection against the inevitable hazards of life, because adequate protection is not procurable, and the prices charged for the partial protection offered are out of all proportion to the security afforded. All we can do is to give the average of the money outlay for insurance other than life and for membership in organizations paying benefits.

One of the most serious things in life is amusement. Its seriousness is intensified into solemnity for the one bent upon standardizing the family budget. Amusement is just as necessary to health and well-being as is food and raiment. In fact, a large part of the outlay for food and clothes is incurred for the amusement we get

out of eating, and wearing swagger clothes. How much and what kinds of amusement should a standard budget provide? A wise man has said, "One man's meat is another man's poison." This general idea applies with a thousandfold greater force to amusements. What amuses one man bores another to extinction. I am willing to suggest to the workers of America how many pounds of eggs, potatoes, beef, cabbage, and prunes they should eat per annum to maintain health. I have not the courage to suggest how many times a workingman should take his family to the movies or to the steam-fitters' ball. Amusement is largely psychical and therefore very elusive. Tom Sawyer, by using the most approved psychical methods of the trust promoter and the professional entertainer, elevated fence whitewashing from the lowest form of menial drudgery to the rank of the most popular outdoor sport in his home town, so that, for the time, fishing and swimming were forgotten. I know a physician who gets no end of amusement out of directing a volunteer church choir. Some people have a passion for attending funerals; others prefer opera. The variety and weirdness in the multitudinous forms of amusements are astonishing. How can we measure this great need for relaxation and change so that we can express quantitatively the kinds of amusement necessary for the typical worker's family to maintain its health? I think the only thing that can be done is to take a general average of the expenditures for amusements as the norm and measure the changes in the cost of amusement by the changes in the prices of the more common forms indulged in by workingmen's families—such as moving-picture tickets, dance tickets, excursion rates, and the like.

It will be readily recognized that to work out standard budgets that will be acceptable to anyone besides the budget makers themselves will be exceedingly difficult. Even the budget makers will probably be assailed by qualms of doubt as to their budgetary omniscience after they have promulgated their standard budgets. Such consumption standards are absolutely necessary, however, for the guidance of wage adjusters in arriving at just wage awards and of domestic economists in suggesting changes in the consumption of families, which will insure more healthful living without increasing, and oftentimes by decreasing, family expenditures. Everyone who knows of the bureau's latest cost-of-living study and is interested in the health and economic well-being of the working population of our country is anxiously awaiting the completion of the study and the promulgation of these long-desired standard family budgets. Nearly 300 agents are now at work on the study in the field and the domestic scientists and social workers of the country are at work formulating tentative standard budgets. While awaiting the completion of this

study, a great deal of useful information may be drawn from the schedules already completed and from the tables made therefrom.

Examination of the family schedules obtained in the Washington, D. C., study shows that in 1916 the typical white family, consisting of father, mother, and three children below the age of 15 was not able to make both ends meet with an income of less than \$1,150 per annum. This would indicate that a minimum-of-comfort budget, according to the practices and standards of domestic economy prevailing in Washington in 1916, must be about \$1,200. Since 1916 the cost of the necessities of decent living weighted according to importance in the family budget has advanced approximately 50 per cent. This indicates that an identical standard of decency can not be purchased for less than \$1,800 to-day. It may be that without injury to the health of the family, expenditures could be cut down for food and clothing by a better planned dietary, by wiser purchases of clothing, and especially by more careful wearing of clothes and use of household furnishings.

Fairly acceptable standards of food requirements have been worked out by dietitians giving the calories needed by men, women, and children of different ages and occupations, and providing a proper balance between foods rich in proteins, fat, starch, sugar, mineral salts, vitamins, and cellulose tissue for bulk. If we accept tentatively the standard for food expenditure worked out by Prof. F. P. Underhill, of the Sheffield Laboratory, and applied by R. C. Chapin in his study of standard of living in New York City, we will certainly not err on the side of too great liberality. Chapin found that at the prices of food in New York City in 1907 an adult male required for his maintenance in health and strength an expenditure for food of not less than 22 cents per day. Retail prices of articles of food weighted according to their importance in family consumption increased by about 40 per cent from 1907 to 1916. Adding 40 per cent to 22 cents gives us 31 cents per day, equivalent to about \$113 per year to feed an adult male. Surely this is not an extravagant allowance for food per man even in that golden age when strictly fresh eggs could still be bought for 5 cents apiece and round steak for 25 cents a pound. Yet, of the white families with incomes ranging from \$1,200 to \$1,500 more than one-fifth spent less than \$112.50 per annum per adult male for food, while 50 per cent of the colored families in this income group spent less than that much.

Taking all income groups together, half of the white families (740) spent less than \$137.50 per adult male for food and 78 per cent of the colored families (314) spent under that amount.

From my study of the Washington schedules I conclude that making a proper allowance for unavoidable waste, a diet sufficient (both

in amount and variety) to maintain a worker's family in reasonable health and comfort would cost not less than \$137.50 per adult male per annum in 1916. Even this liberalized allowance for food does not permit of extravagance in buying and wastefulness due to ignorance of the fundamentals of the transcendent art of cookery.

Half of the white families of Washington spent less than \$137.50 per man for food in 1916. Hence we can say with a good deal of assurance that the health of half of the working population of Washington in 1916 was impaired by inadequate diets. The food regulations and, to a far greater extent, the increased prices of food, particularly meats, meal, and flour, have modified greatly the dietaries of American workingmen's families. From all the evidence at hand it seems probable that these changes in diet have resulted beneficially rather than harmfully to the health of our working population. Real wages have probably not fallen. Budget schedules indicate a falling off in the use of meat and an increase in the consumption of vegetables. This and the fact that flour is now made from the whole wheat would indicate that the war has left us dietetically better off than it found us.

LABOR TURNOVER IN CLEVELAND AND DETROIT.

BY BORIS EMMET.

During the summer of 1918 the United States Bureau of Labor Statistics undertook a study of the extent and causes of the shifting of labor and of the methods successfully applied in reducing the extent of labor turnover. A brief article bearing upon the latter phase of this investigation was recently published.¹ The following article represents the results of a partial study of the first phase of the investigation mentioned, to wit, a measurement of the extent of labor turnover in two cities—Cleveland and Detroit.

Before proceeding to the discussion of the extent of labor turnover a few words must be said regarding the methods followed in figuring it. The extent of labor turnover is measured in this report by the ratio of the average daily number actually at work during the year to the number of separations for all causes, viz, discharges, lay-offs, entrances into military service, and quits or voluntary separations. The latter classification includes all other minor causes of separations not specifically mentioned, such as deaths, marriages, pensioning, etc. This method of measuring turnover is in accord with the standard definition of labor turnover and methods specified for computing same, as formulated by a special labor turnover committee of the National Conference of Employment Managers, held at Rochester, N. Y., May 9-11, 1918.²

As may readily be seen, the computation of turnover in the manner specified necessitated the existence of detailed attendance reports. This fact restricted the investigation to establishments possessing more or less well-organized employment systems and good records. It is believed that the extent of turnover in the establishments covered is considerably smaller than in many other local establishments which have not as yet come to a definite realization of the imperative necessity of reliable labor and employment bookkeeping. This belief is supported by a considerable amount of fragmentary data which was obtained.

¹ "Labor turnover and employment policies of a large motor vehicle manufacturing establishment," MONTHLY LABOR REVIEW, U. S. Bureau of Labor Statistics, October, 1918, pp. 1-18.

² A verbatim statement of this report was published in the June, 1918, issue of this REVIEW, pp. 172-173. It is as follows:

Standard definition of labor turnover and method of computing the percentage of labor turnover.

Labor turnover for any period consists of the number of separations from service during that period. Separations include all quits, discharges, and lay-offs for any reason whatsoever.

The percentage of labor turnover for any period considered is the ratio of the total number of separations during the period to the average number of employees on the force report during that period. The force report gives the number of men actually working each day as shown by attendance records. * * *

To compute the percentage of labor turnover for any period find the total separations for the period considered and divide by the average of the number actually working each day throughout the period. Then multiply by the proper factor to reduce to a yearly basis. * * *

In case the number employed by a plant or a department of a plant decreases because it is the deliberate policy of the plant management to reduce permanently its working force, this fact should be explicitly stated and the reasons for the reduction in force given.

The information upon which this report is based was gathered in each instance by personal visits of agents of the bureau. This procedure was followed in order to insure uniformity of computation of the averages called for, as well as in the interpretation of the meaning of the nature of the separations.

For certain reasons it was not deemed advisable to reveal the names of the firms in connection with their respective turnover figures. For purposes of identification, therefore, each firm is designated throughout this report by a special establishment number.

COMPARATIVE EXTENT OF TURNOVER IN CLEVELAND AND DETROIT.

With some exceptions, which are noted in the detailed tables, the period covered by the investigation was the year ending nearest June 1, 1918. The study covered 37 establishments in more than 20 industries of the city of Cleveland (Table 2) and 42 establishments in 17 industries of the city of Detroit (Table 4). The average annual force of the two groups of establishments was 42,797 and 88,815, respectively.

The relative extent of labor turnover in the two cities is shown in Table 1, which gives the proportion of establishments in each locality having each classified percentage of annual labor turnover.

TABLE 1.—COMPARATIVE EXTENT OF LABOR TURNOVER IN CLEVELAND AND DETROIT.

Classified per cent of turnover.	Establishments having classified turnover.			
	Cleveland.		Detroit.	
	Number.	Per cent.	Number.	Per cent.
Under 50.....			1	2
50 and under 100.....	4	10	3	7
100 and under 150.....	5	14	3	7
150 and under 200.....	5	14	3	7
200 and under 250.....	7	19	6	14
250 and under 300.....	7	19	8	19
300 and under 350.....	5	14	4	10
350 and under 400.....	4	10	5	12
400 and under 500.....			6	14
500 and over.....			3	7

The above summary shows that slightly more than one-fifth of the Detroit firms had a turnover exceeding 400 per cent. More than two-fifths of them had a turnover exceeding 300 per cent. No such extent of turnover was found in Cleveland. More than three-fourths of the Cleveland establishments had a turnover of less than 300 per cent. The greater turnover in Detroit was due, it is believed, to the more intense competition for labor in Detroit, where the extent of war manufacturing activities was much greater. In this connection it must be noted that the extent of labor turnover, in both of the cities, assumed much greater proportions during the early months of the summer of 1918, when decided shortages of common labor

began to be felt in the war industries. Many an establishment of Cleveland and Detroit showed a monthly labor turnover of from 50 to 60 per cent during this period. One large firm in the city of Cleveland, engaged in most urgent war work, lost 97 per cent of the working force in one of its main departments during the month of May, 1918.

EXTENT OF LABOR TURNOVER IN CLEVELAND.

The following table shows in detail the extent of labor turnover in 37 establishments in the city of Cleveland:

TABLE 2.—LABOR TURNOVER FOR YEAR ENDING JUNE 1, 1918, IN 37 ESTABLISHMENTS, CLEVELAND, OHIO.

Estab-lishment No.	Num-ber hired.	Separations.					Aver- age number em- ployed per day.	Per cent of turn- over for year.	Industry or nature of business.
		Dis- charged.	Laid off.	En- tered mili- tary serv- ice.	Quit.	Total.			
1	3,552	156	22	529	2,171	2,878	4,456	65	Automobile and motor-truck manuf- acturing.
2	7,011	(2)	(2)	(2)	(2)	3,718	3,124	119	Metal products manufacturing.
3	(2)	2,709	-----	270	6,651	9,630	2,712	355	Do.
4	(2)	(2)	(2)	(2)	(2)	3,037	2,430	125	Do.
5	7,367	(2)	(2)	(2)	(2)	6,525	2,222	294	Steel manufacturing.
6	5,179	1,095	470	274	4,450	6,289	2,173	289	Automobile and motor-truck manuf- acturing.
7	6,075	429	406	315	4,439	5,589	1,987	281	Storage batteries.
8	5,118	275	118	200	4,488	5,081	1,649	308	Metal products manufacturing.
9	6,036	763	-----	57	4,969	5,789	1,610	359	Storage batteries, carbon products, manufacturing.
10	3,009	(2)	(2)	(2)	(2)	4,030	1,514	266	Woodwork, sewing-machine cabinet, etc.
11	(2)	(2)	(2)	(2)	(2)	1,611	1,757	92	Clothing, women's, manufacturing.
12	2,643	188	6	66	2,663	2,923	1,417	206	Automobile and motor-truck manuf- acturing.
13	2,328	353	1	2	1,906	2,262	1,368	173	Telephone service (operating force).
14	2,200	20	513	147	2,209	2,889	1,287	228	Metal products manufacturing.
15	3,520	(4)	(1)	216	5 2,340	2,556	1,283	202	Metal products manufacturing.
16	(2)	320	-----	(4)	6 2,521	2,841	1,031	276	Steel (Canton).
17	3,378	(2)	(2)	(2)	(2)	3,698	1,004	368	Bags (paper and cloth) manufacturing.
18	1,575	(2)	(2)	(2)	(2)	1,338	984	136	Metal products manufacturing.
19	2,691	58	15	166	2,154	2,393	940	255	Storage batteries.
20	3,077	(2)	(2)	(2)	(2)	3,091	937	330	Malleable-iron castings.
21	1,286	11	26	42	1,307	1,386	917	151	Metal products manufacturing.
22	(2)	(2)	(2)	(2)	(2)	2,076	770	270	Auto frames and steel stampings, manufacturing.
23	(2)	(2)	(2)	(2)	(2)	573	753	76	Gas, illuminating, manufacturing.
24	2,392	206	45	156	1,927	2,334	709	329	Wire and hot-rolled rods, manufactur- ing.
25	1,510	96	18	79	1,327	1,520	699	217	Wire, rods, nails, staples, manufactur- ing.
26	1,281	84	-----	45	1,161	1,290	590	219	Metal products manufacturing.
27	941	(2)	(2)	(2)	(2)	776	393	197	Electrical appliances manufacturing.
28	1,455	167	552	132	432	1,283	384	334	Tractors.
29	1,016	(2)	(2)	(2)	(2)	1,033	344	302	Street-railway cars manufacturing.
30	(2)	(2)	(2)	(2)	(2)	158	304	52	Gas, illuminating, manufacturing (cler- ical force).
31	568	50	-----	20	478	548	267	205	Paint and varnish manufacturing.
32	(2)	(2)	(2)	(2)	(2)	443	205	216	Brushes, manufacturing.
33	225	(2)	(2)	(2)	(2)	265	163	163	Printing and publishing (book and job).
34	(2)	(2)	(2)	(2)	(2)	232	149	156	Printing.
35	(2)	(2)	(2)	(2)	(2)	376	105	358	Paint and varnish manufacturing.
36	132	23	-----	9	108	140	102	137	Telephone service (clerical force).
37	(2)	(2)	(2)	(2)	(2)	139	98	141	Molding machinery, manufacturing.

¹ For year ending Apr. 1, 1918.

² Not reported.

³ The turnover information shown here is based upon the records of five individual establishments. It was obtained in connection with another investigation carried on simultaneously in the cloak and suit industry of Cleveland. The results of this investigation were published in the August, 1918, issue of this REVIEW (pp. 1-29).

⁴ Included in "Quit."

⁵ Includes "Discharged" and "Laid off."

⁶ Includes "Entered military service."

The preceding table reveals the fact that more than three-fifths of the Cleveland establishments had an annual turnover exceeding 200 per cent. Almost one-fourth had a turnover percentage exceeding 300 per cent. For a clearer presentation of the facts the turnover figures given in detail in Table 2 have been summarized in Table 3.

TABLE 3.—NUMBER AND PER CENT OF ESTABLISHMENTS HAVING EACH CLASSIFIED PER CENT OF ANNUAL TURNOVER—CLEVELAND.

Classified per cent of turnover.	Establishments having classified turnover.	
	Number.	Per cent.
Under 50.....		
50 and under 100.....	4	10
100 and under 150.....	5	14
150 and under 200.....	5	14
200 and under 250.....	7	19
250 and under 300.....	7	19
300 and under 350.....	5	14
350 and under 400.....	4	10
500 and over.....		
Total.....	37	100

Slightly less than one-fourth of the Cleveland establishments had an annual turnover of less than 150 per cent and the same number had a turnover of 300 per cent or more. The remaining establishments, about one-half of all covered by the investigation, had turnover percentages varying from 150 to under 300 per cent per annum.

The value of turnover figures is greatly increased by examining the general causes responsible for the extent of turnover shown. For this reason an effort was made to determine, in a general way, the causes responsible for the differences in labor turnover revealed. The following is a concise statement of such causes in so far as they could be determined: The working force of establishment No. 30 was chiefly clerical. This explains, to a great extent, the fact that its turnover was the lowest shown—52 per cent per annum. Among the purely industrial establishments of Cleveland, the lowest labor turnover, 65 per cent, was found in establishment No. 1. This unusual record led to an intensive analysis of the labor policies of this establishment. The results of this study were recently published in this REVIEW.¹

Establishment No. 23, a local public utility, shows the next smallest labor turnover—76 per cent. The low turnover found in this establishment is interesting in view of the fact that it did not have even a well-organized employment department. For this reason an inquiry was made of the methods and policies resorted to in keeping down the extent of labor turnover. Officials of this company, however, did not seem to be able to point to anything specific. They merely stated that the low labor turnover was due to the "fairness" of the concern and to the "pretty good wages paid."

¹ "Labor turnover and employment policies of a large motor vehicle manufacturing establishment," October, 1913 (pp. 1-19).

As pointed out in one of the footnotes to Table 2, the labor-turnover figures shown for establishment No. 11 were secured in connection with a special investigation carried on by the bureau and were based upon the employment records of five individual firms. More than half of the employees of those establishments were women and girls—a specialized class of garment help for which the local demand was not nearly so great as for men. Each of these firms had a modern employment and service department and a carefully formulated liberal labor policy. These facts account, no doubt, for their relatively low labor turnover—92 per cent per annum.

Nine firms, or about one-fourth of all, showed an annual turnover of 300 per cent and over. Establishment No. 17 had the largest turnover in the locality, namely, 368 per cent. Unlike the most of the firms covered, this concern employed a large number of inexperienced young girls, an employment group not particularly stable. Aside from this, the large turnover of this firm may be attributed to the absence of a properly organized employment department and the lack of a specially designated trained person to handle labor questions.

The next largest annual turnover—359 per cent—was found in establishment No. 9, a concern engaged in the manufacture of carbon products, storage batteries, etc. This firm has a well-organized, centralized employment department which handles all matters relating to hiring, promotion, and discharge. During the period covered by the investigation, the department was in charge of a trained employment executive who enjoyed the confidence of the management. The principal cause of the rather large labor turnover in this establishment is said to be the general character of the work, which is very disagreeable. Some of the raw materials used in the processes of manufacture are coke, ground to a very fine flour, manganese, pitch, fuel oil, graphite, and many other odorous chemicals. Much of the work performed is quite dusty and very hot. These conditions, it was stated, compel the employment of workers of a relatively low standard, many of whom are of a very shifting character. The relatively large labor turnover of establishment No. 35—358 per cent—may be said to be attributable, to a great degree, to the lack of a definitely formulated labor policy and the absence of a properly organized employment system. The practice of endowing the time-keeping clerk with hiring functions and the foremen with the power to promote and discharge is still followed here.

Establishments Nos. 3, 8, 20, 24, and 29—each of which show a turnover exceeding 300 per cent—belong to one important local industry, namely, metal products manufacturing. The majority of these firms had well-organized departments in which all employment functions were centralized. Firm No. 8 had a particularly well

organized labor department which, in addition to its regular functions, was also in charge of rate setting. The large turnover in the five establishments mentioned was said to be due mainly to the unusually large proportion of unskilled help employed. The very keen local demand for this sort of help, referred to elsewhere, resulted in the development of destructive methods of labor recruiting with a consequent great shifting of common labor from place to place.

EXTENT OF LABOR TURNOVER IN DETROIT.

The following table shows in detail the extent of labor turnover in 42 establishments in the city of Detroit:

TABLE 4.—LABOR TURNOVER FOR YEAR ENDING JUNE 1, 1918, IN 42 ESTABLISHMENTS, DETROIT.

Es- tab- lish- ment No.	Num- ber hired.	Separations.					Aver- age num- ber em- ployed per day.	Per cent of turn- over per year.	Industry or nature of business.
		Dis- charged.	Laid off.	En- tered mili- tary serv- ice.	Quit.	Total.			
1	14,924	169	110	3,122	11,230	214,631	31,950	46	Automobile manufacturing.
2	34,779	4,886	2,085	2,304	20,916	30,191	11,405	265	Do.
3	41,174	5,115	3,799	2,727	34,167	45,808	11,125	412	Do.
4	16,696	(⁸)	(⁸)	1,496	415,552	17,048	6,337	269	Do.
5	(⁸)	4,948	(⁸)	(⁸)	10,182	15,130	3,379	448	Metal products manufacturing.
7	2,332	(⁸)	(⁸)	(⁸)	(⁸)	2,527	2,925	86	Coke and chemicals manufactur- ing.
7	7,683	(⁸)	(⁸)	602	(⁸)	6,861	2,504	274	Automobile manufacturing.
8	3,347	548	4	(⁸)	2,463	3,015	2,167	139	Telephone service (traffic).
9	7,332	965	1,879	362	3,581	6,787	1,944	349	Automobile manufacturing.
10	585	94	.....	137	809	1,040	1,933	54	Gas, illuminating, manufacturing.
11	(⁸)	747	242	317	4,489	5,795	1,103	525	Metal products manufacturing.
9	2,427	634	406	(⁸)	1,227	2,267	850	267	Do.
13	1,629	116	306	63	1,638	2,123	783	271	Do.
14	3,591	713	.....	(⁸)	10,871	3,584	726	494	Do.
15	(⁸)	(⁸)	(⁸)	(⁸)	(⁸)	1,642	675	243	Do.
7	1,037	112	.....	95	924	1,131	668	169	Chemicals, drugs, manufacturing.
17	1,781	(⁸)	(⁸)	(⁸)	(⁸)	1,714	637	269	Metal products manufacturing.
18	1,773	113	.....	130	1,190	1,433	630	227	Do.
19	2,682	65	.....	.....	2,600	2,665	591	451	Tobacco.
20	1,642	298	.....	(⁸)	10,1467	1,765	511	345	Furniture manufacturing.
21	834	44	(⁸)	41	11,082	1,167	497	235	Metal products manufacturing.
22	686	55	.....	25	898	978	480	204	Clothing, overalls, manufacturing.
23	3,000	(⁸)	(⁸)	(⁸)	(⁸)	3,040	475	640	Paper manufacturing.
24	(⁸)	365	.....	45	1,464	1,874	456	411	Food products.
25	1,967	168	.....	84	1,805	2,057	438	470	Metal products manufacturing.
26	533	66	37	89	318	510	431	118	Telephone service (installation and maintenance).
27	1,296	63	24	67	912	1,066	390	273	Metal products manufacturing.
28	628	51	26	106	450	633	331	191	Telephone service (construction).
29	910	102	250	53	290	695	316	220	Metal products manufacturing.
30	968	137	.....	68	694	899	241	373	Do.
31	800	(⁸)	(⁸)	(⁸)	(⁸)	670	224	299	Do.
32	392	18	.....	22	344	384	218	176	Do.
33	744	125	.....	33	586	744	213	349	Electrical appliances manufactur- ing.
34	(⁸)	(⁸)	(⁸)	(⁸)	(⁸)	710	187	380	Metal products manufacturing.
35	543	43	27	15	482	567	161	352	Do.
36	104	15	3	20	68	106	161	66	Telephone service (commercial).
37	(⁸)	(⁸)	(⁸)	(⁸)	(⁸)	391	159	246	Electrical manufactures (special- ties).
38	167	13	20	13	95	141	138	102	Telephone service (clerical).
39	477	52	260	42	183	537	135	398	Automobile manufacturing.
40	606	148	32	64	369	613	121	507	Do.
41	(⁸)	120	.....	30	273	423	114	371	Metal products manufacturing.
42	(⁸)	(⁸)	(⁸)	(⁸)	(⁸)	298	86	347	Do.

¹ Year ending Aug. 1, 1918.² Excluding transfers.³ Included in "Quit."⁴ Includes "Discharged" and "Laid off."⁵ Not reported.⁶ Includes "Laid off" and "Entered into military service."⁷ Year ending July 1, 1918.⁸ No males employed in establishment.⁹ Year ending Feb. 1, 1918.¹⁰ Includes "Entered military service."¹¹ Includes "Laid off."

For purposes of clearer analysis the detailed turnover figures given in Table 4 are summarized in Table 5.

TABLE 5.—NUMBER AND PER CENT OF ESTABLISHMENTS HAVING EACH CLASSIFIED PER CENT OF ANNUAL TURNOVER—DETROIT.

Classified per cent.	Establishments having classified turnover.	
	Number.	Per cent.
Under 50.....	1	2
50 and under 100.....	3	7
100 and under 150.....	3	7
150 and under 200.....	3	7
200 and under 250.....	6	14
250 and under 300.....	8	19
300 and under 350.....	4	10
350 and under 400.....	5	12
400 and under 500.....	6	14
500 and over.....	3	7
Total.....	42	100

Only about one sixth of the Detroit establishments covered by the investigation had a turnover of less than 150 per cent per annum. More than two-fifths of them had a turnover of 300 per cent or more. Over one-fifth of the establishments had a turnover of 400 per cent or more.

As in Cleveland, an effort was made to determine in a general way the reasons for the variation in the extent of labor turnover found. In the following paragraphs is given a concise statement of such reasons, in so far as they could be determined. Establishment No. 1, which shows the lowest turnover—46 per cent per annum—has a national reputation for the liberality and fairness with which it has treated its employees and the high rates of wages paid. Reference to Table 7 will show that the extent of discharges in this plant is only 1 per cent of the total separations, the lowest found. The firm has a centralized and well-organized employment department and does much welfare or service work. As a result of the labor policies mentioned it has developed an intense organization spirit which makes even its humblest employee feel that he is an integral and important part in the organization.

Establishment No. 10, with the next lowest turnover in the locality—54 per cent—is a local public utility with a centralized employment department. It is said to pursue a carefully formulated liberal policy, one of the mottoes of which is said to be "Steady employment." By careful planning in advance it managed to avoid lay-offs, as may be seen from Table 7.

Establishment No. 6 is engaged in the manufacture of coke, chemicals, and high explosives. In spite of the hazardous character of the work and its general unpleasantness, due principally to strong odors, dust, heat, etc., it had an annual labor turnover of only 86

per cent. This unusual record was achieved through the application of a carefully worked out liberal labor policy and by the existence of an efficient employment department in which are centralized all functions relating to employment, promotion, and service. The company pays special attention to the question of changes in the cost of living and endeavors to adjust wages in accordance with the changes in the prices of commodities. The records of the employment department of this concern show that during the year covered by the investigation almost three-fifths of its employees earned \$1,300 or more, about two-fifths having earned \$1,500 or more. The proportion earning less than \$1,200 was slightly over one-tenth.

The firm maintains a large medical staff for the purpose of caring for the health of the employees while at work. It also has in operation an employees' sick benefit association, which for a very small fee pays sick and death benefits in cases of disability. This association paid out more than \$35,000 in sick and death benefits during the year 1917. The company, moreover, maintains a cooperative store, which is fairly popular with the employees. This store did a business exceeding \$143,000 during the year 1917.

Careful attention is paid to the question of absenteeism. Employees who fail to report to work are immediately visited by company nurses attached to the medical staff. To discourage separations the firm pays a length-of-service bonus to its employees paid by the hour. Workers with a continuous-service record of one full year are given annual bonuses amounting to $1\frac{1}{2}$ per cent of their earnings, with an additional one-half per cent for each successive year, and up to 6 per cent. As an encouragement to its salaried employees, the company maintains a profit-sharing plan. A certain proportion of the net profits of the business is set aside each year for distribution in accordance with the salaries received.

Lockers and showers are provided for all employees. The coke-oven employees are also furnished with a special place for shaving. Filtered drinking water is provided in convenient places. The firm maintains employees' lunch rooms and a restaurant, run at a loss, because of the low prices charged for food. During the year 1917 the lunch rooms served a total of 484,666 meals, at an average price of 14.9 cents per meal.

There is a large athletic association composed of employees and supported by dues paid. The club rooms are furnished, free of charge, by the company, and are equipped with a gymnasium, showers, swimming pool, bowling alleys, and pool tables. The club maintains a band, and baseball, bowling, football, and soccer teams. During the past summer the club had under its management a summer-vacation hotel, where employees of the company could procure fine accommodations at the rate of \$10 per week, or \$2 for week ends.

Recently a special housing fund was created. Since the setting aside of this fund, 18 two-family houses at a cost of \$64,400 were built. In addition, 9 houses were bought at a cost of \$37,658. Aside from building, it is the policy of the company to secure, whenever possible, leases on modern apartment houses in the vicinity for the purpose of renting them to its better-paid employees. The rent usually charged for such apartments varies from \$18 to \$25 per month. The company also maintains a special loan fund for needy employees. Loans, to be repaid on the installment plan with nominal interest, are made to employees.

The rather low labor turnover record of establishment No. 36 is explained by the fact that the employees concerned were of a high-salaried grade, all belonging to the commercial department of a local public utility. The same may be said regarding establishments Nos. 8 and 16, the bulk of the employees of which constituted the clerical forces of two local public utilities.

A glance at Table 4 will show that the greatest turnover was found in purely industrial establishments which are typical of the city of Detroit, and which are engaged mostly in the manufacture of metal products, machinery, automobiles, and auto parts. As pointed out elsewhere, the greatest extent of turnover in these establishments was found in the departments where the bulk of the help was of the common labor variety.

Establishment No. 23, engaged in paper making, shows an annual turnover of 640 per cent—the largest in the locality. It reports “no special efforts” to reduce the extent of labor turnover. It has an employment department with functions solely of a recording and hiring character. The power of discharge and promotion is chiefly in the hands of its foremen and subforemen. Establishment No. 11, with the next largest turnover—525 per cent—represents an organization which developed almost over night, as a result of the war. It is engaged principally in the manufacture of ammunition, employing largely unskilled help. On account of its rapid development and the great pressure of work, it has not had the opportunity even to analyze carefully its turnover. The explanation of the huge turnover of this establishment is equally applicable to establishments Nos. 14, 25, 19, 3, and 24—all with annual turnover records exceeding 400 per cent.

Establishment No. 40, with a labor turnover of 507 per cent, is a relatively small concern engaged in the manufacture of motor cars and auto parts. There exists in this establishment no definitely formulated labor policy designed to diminish the extent of separations. Its employment department is invested only with hiring and recording functions, the power of discharge still being placed, as of old, with the foremen.

NATURE OF SEPARATIONS.

The classification regarding the nature of separations used in this report is the one adopted by the committee on labor turnover of the National Conference of Employment Managers.

Table 6 shows, in a comparative way, the extent to which the separations in Cleveland and Detroit were due to discharges, lay-offs, entrances into military service and voluntary separations or quits. As already stated, the latter include separations due to death, marriage, pensioning, etc.

TABLE 6.—PROPORTION OF SEPARATIONS ATTRIBUTABLE TO EACH SPECIFIED CAUSE.

City.	Per cent of total separations due to—			
	Discharge.	Lay-off.	Entrance into military service.	Quit.
Cleveland.....	9	5	5	81
Detroit.....	11	7	8	73
Total.....	11	7	7	75

Nine per cent of the separations in Cleveland, and a somewhat larger proportion—11 per cent—of the separations in Detroit were due to discharges. By the latter is meant, in all instances, what is known as a "discharge for cause" or a discharge due to some undesirability in the character or ability of the employee.

Lay-offs account for 5 per cent of the separations in Cleveland and for 7 per cent of the separations in Detroit. In the great majority of instances these lay-offs were of a somewhat extended, though temporary, kind, ending subsequently in new hirings.

Five per cent of the Cleveland separations and 8 per cent of the Detroit separations were due to entrances into military service, either by voluntary enlistment or through the draft. In this connection it must be noted that the extent of turnover shown to be due to entrances into military service is a considerable underestimate for the reason that many employees who entered the Army or Navy failed to report the actual cause of their leaving and were therefore marked as "quits."

Eighty-one per cent of the Cleveland turnover and 73 per cent of the turnover in Detroit were due to voluntary separations.

Table 7 shows, in detail, the precise nature of the separations in 16 establishments in Cleveland and 25 establishments in Detroit.

TABLE 7.—NUMBER AND PER CENT OF SEPARATIONS ATTRIBUTABLE TO EACH SPECIFIED CAUSE.

Sixteen establishments in Cleveland.

Establishment Number—	Number.					Per cent.				
	Discharged	Laid off.	Entered military service.	Quit.	Total.	Discharged	Laid off.	Entered military service.	Quit.	Total.
12.....	188	6	66	2,663	2,923	6	(¹)	2	91	100
6.....	1,095	470	274	4,450	6,289	17	7	4	71	100
1.....	156	22	529	2,171	2,878	5	1	18	75	100
7.....	429	406	315	4,439	5,589	8	7	6	79	100
19.....	58	15	166	2,154	2,393	2	1	7	90	100
26.....	84	.....	45	1,161	1,290	7	.....	3	90	100
8.....	275	118	200	4,488	5,081	5	2	4	88	100
21.....	11	26	42	1,307	1,386	1	2	3	94	100
9.....	763	.....	57	4,969	5,789	13	.....	1	86	100
31.....	50	.....	20	478	548	9	.....	4	87	100
28.....	167	552	132	432	1,283	13	43	10	34	100
24.....	206	45	156	1,927	2,334	9	2	7	83	100
25.....	96	18	79	1,327	1,520	6	1	5	87	100
36.....	23	.....	9	108	140	16	.....	6	77	100
13.....	353	1	2	1,906	2,262	16	(¹)	(¹)	84	100
14.....	20	513	147	2,209	2,889	1	18	5	76	100
Total.....	3,974	2,192	2,239	36,189	44,594	9	5	5	81	100

Twenty-five establishments in Detroit.

22.....	55	.....	25	898	978	6	.....	3	92	100
24.....	365	.....	45	1,464	1,874	19	.....	2	78	100
10.....	94	.....	137	809	1,040	9	.....	13	78	100
35.....	43	27	15	482	567	8	5	3	85	100
27.....	63	24	67	912	1,066	6	2	6	86	100
18.....	113	.....	130	1,190	1,433	8	.....	9	83	100
11.....	747	242	317	4,489	5,795	13	4	5	77	100
30.....	137	.....	68	694	899	15	.....	8	77	100
41.....	120	.....	30	273	423	28	.....	7	65	100
25.....	168	.....	84	1,805	2,057	8	.....	4	88	100
13.....	116	306	63	1,638	2,123	5	14	3	77	100
29.....	102	250	53	290	695	15	36	8	42	100
32.....	18	.....	22	344	384	5	.....	6	90	100
39.....	52	200	42	183	537	10	48	8	34	100
40.....	148	32	64	369	613	24	5	10	60	100
3.....	5,115	3,799	2,727	34,167	45,808	11	8	6	75	100
1.....	169	110	3,122	11,230	14,631	1	1	21	77	100
9.....	965	1,879	362	3,581	6,787	14	28	5	53	100
2.....	4,886	2,085	2,304	20,916	30,191	16	7	8	69	100
16.....	112	.....	95	924	1,131	10	.....	8	82	100
28.....	51	26	106	450	633	8	4	17	71	100
26.....	66	37	89	318	510	13	7	17	62	100
38.....	13	20	13	95	141	9	14	9	67	100
36.....	15	3	20	68	106	14	3	19	64	100
8.....	548	4	.....	2,463	3,015	18	(¹)	.....	82	100
Total.....	14,281	9,104	10,000	90,052	123,437	11	7	8	73	100

¹ Less than 1 per cent.

LABOR TURNOVER AND LENGTH OF SERVICE.

The relative costliness of labor turnover varies, among other factors, with (a) the technical skill of the employee, and (b) his experience—the greater the skill and experience the more costly the separation. The relative skill of an employee is frequently indicated by his occupation or departmental affiliation. In a similar manner the length of continuous service may, generally speaking, be said to constitute a fair measurement of an employee's value to the organization.

With one or two exceptions, no departmental or occupational turnover analysis was possible because of the lack of suitable detailed employment records. More satisfactory results, however, were obtained in classifying the separations by length of service. Almost one-half of the establishments in Cleveland and one-third of the establishments in Detroit were in a position to furnish reliable data regarding the length of continuous service of persons in their employ, as well as of those who had left their service during the period covered by the investigation.

Table 8 shows, in a summary way, the proportion in employ and among separations of certain identical length-of-service groups of employees, for 18 establishments in the city of Cleveland.

TABLE 8.—PROPORTION IN EMPLOY AND AMONG THE SEPARATIONS OF CERTAIN IDENTICAL LENGTH-OF-SERVICE GROUPS OF EMPLOYEES IN 18 ESTABLISHMENTS IN CLEVELAND.

Length-of-service group.	Per cent.	
	Employed.	Separations.
1 week or under.....	3.2	19.3
Over 1 week to 2 weeks.....	3.1	10.9
Over 2 weeks to 1 month.....	4.8	13.1
Over 1 month to 3 months.....	12.8	21.4
Over 3 months to 6 months.....	10.4	13.4
Over 6 months to 1 year.....	16.1	10.8
Over 1 year to 2 years.....	14.4	4.8
Over 2 years to 3 years.....	8.5	2.6
Over 3 years to 5 years.....	9.2	1.8
Over 5 years.....	17.5	1.9
Total.....	100.0	100.0

On the assumption that the length-of-service distribution of those in employ was, throughout the year, substantially the same as on the day on which the classification shown in Table 9 was made, it appears that the groups with records of continuous service of less than one month, while only about 11 per cent of the total employed, were responsible for more than 43 per cent of the separations. The chances for separation decrease greatly with extended service. The service group of five years and over, although 17.5 per cent of the force, was responsible for less than 2 per cent of the separations.

Table 9 gives the detailed figures upon which Table 8 is based.

TABLE 9.—NUMBER AND PER CENT IN EMPLOY AND AMONG THE SEPARATIONS OF SPECIFIED LENGTH-OF-SERVICE GROUPS OF EMPLOYEES IN EACH OF 18 ESTABLISHMENTS IN CLEVELAND.

Establishment No.	Number in each classified service group.																					Industry or nature of business.	
	On pay roll at end of year.											Separated during the year.											
	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.		Total.
6.....	69	59	121	351	353	247	105	88	63	42	1,498	249	255	504	1,516	1,256	1,263	438	378	252	178	6,289	Automobile and motor truck mfg.
1.....	95	85	58	488	390	783	705	533	785	772	4,694	135	88	135	652	600	559	307	240	96	72	12,884	Do.
32.....	21	23	22	35	32	44	36	10	16	21	260	173	45	69	72	40	30	12	.....	1	1	443	Brushes mfg.
27.....	22	30	32	89	58	53	76	54	9	55	478	64	103	119	256	103	69	35	9	7	11	776	Electrical appliances mfg.
21.....	9	27	15	36	34	87	122	93	77	313	813	202	399	203	240	137	92	46	19	12	36	1,386	Metal products mfg.
19.....	66	50	78	130	87	166	128	127	31	162	1,025	390	434	414	603	268	181	61	19	7	16	2,393	Storage batteries.
15.....	27	36	117	217	130	233	174	148	132	138	1,352	259	252	349	536	301	220	77	54	9	9	12,066	Metal products mfg.
26.....	7	7	33	50	21	58	88	26	18	244	552	221	146	203	216	107	106	65	9	16	24	11,113	Do.
20.....	17	21	66	63	51	113	111	54	84	152	732	1,724	653	439	43	42	31	43	31	42	43	3,091	Malleable iron castings.
37.....	5	4	9	10	10	13	16	7	13	5	92	36	9	20	21	20	20	11	2	.....	2	139	Molding machinery mfg.
31.....	8	17	14	33	15	25	30	10	5	80	237	202	59	52	100	65	43	12	2	5	8	548	Paint and varnish mfg.
39 ²	2	2	9	12	8	3	13	6	6	23	82	4	6	5	14	6	12	7	3	2	1	60	Printing.
29.....	21	9	28	61	32	46	40	37	34	12	320	74	67	309	345	108	78	27	21	8	1	1,038	Street-railway cars mfg.
9.....	57	88	97	314	271	300	284	106	106	261	1,884	1,766	674	765	1,114	527	322	129	19	31	25	15,372	Storage batteries, carbon products, mfg.
36.....	5	6	6	13	20	13	12	2	2	28	107	5	9	21	30	28	22	15	3	3	4	140	Telephonservice (clerical force).
31.....	85	50	45	212	183	345	425	145	181	163	1,834	291	208	201	378	354	349	221	79	116	63	12,260	Telephone service (operating force).
14.....	24	12	35	109	133	192	107	34	64	167	877	426	249	463	823	499	255	95	27	22	30	2,889	Telephone service (plant).
10.....	60	49	111	158	91	260	193	86	87	598	1,693	897	388	585	947	484	331	162	28	40	168	4,030	Woodwork, sewing-machine cabinets, etc.
Total..	598	575	896	2,381	1,919	2,981	2,665	1,566	1,713	3,236	18,530	7,118	4,044	4,856	7,906	4,945	3,983	1,763	943	669	690	36,917	

¹ Period covered by separations is different from period covered in Table 1.

² This establishment lacked the data for Table 2.

TABLE 9.—NUMBER AND PER CENT IN EMPLOY AND AMONG THE SEPARATIONS OF SPECIFIED LENGTH-OF-SERVICE GROUPS OF EMPLOYEES IN EACH OF 18 ESTABLISHMENTS IN CLEVELAND—Concluded.

Establishment No.	Per cent in each classified service group.																					Industry or nature of business.	
	On pay roll at end of year.											Separated during the year.											
	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.		Total.
6.....	5	4	9	23	24	16	7	6	4	3	100	4	4	8	24	20	20	7	6	4	3	100	Automobile and motor truck mfg.
1.....	2	2	1	10	8	17	15	11	17	16	100	5	3	5	23	21	19	11	8	3	2	100	Do.
32.....	8	9	8	13	12	17	14	4	6	8	100	39	10	16	16	9	7	3	.....	(1)	(1)	100	Brushes mfg.
27.....	5	6	7	19	12	11	16	11	2	12	100	8	13	15	33	13	9	5	1	1	1	100	Electrical appliances mfg.
21.....	1	3	2	4	4	11	15	11	9	38	100	15	29	15	17	10	7	3	1	1	3	100	Metal products mfg.
19.....	6	5	8	13	8	16	12	12	3	16	100	16	18	17	25	11	8	3	(1)	(1)	1	100	Storage batteries.
15.....	2	3	9	16	10	17	13	11	10	10	100	13	12	17	26	15	11	4	3	(1)	(1)	100	Metal products mfg.
26.....	1	1	6	9	4	11	16	5	3	44	100	20	13	18	19	10	10	6	1	1	2	100	Do.
20.....	2	3	9	9	7	15	15	7	11	21	100	56	21	14	1	1	1	1	1	1	1	100	Malleable iron castings.
37.....	5	4	10	11	11	14	17	8	14	5	100	26	6	14	15	14	14	8	1	.....	.....	100	Molding machinery mfg.
31.....	3	7	6	14	6	11	13	4	2	34	100	37	11	9	18	12	8	2	(1)	1	1	100	Paint and varnish mfg.
39 ²	2	11	15	10	4	16	7	7	28	100	7	10	8	23	10	20	12	5	3	2	100	Printing.	
29.....	7	3	9	19	10	14	12	12	11	4	100	7	6	30	33	10	8	3	2	1	(1)	100	Street-railway cars mfg.
9.....	3	5	5	17	14	16	15	6	6	14	100	33	13	14	21	10	6	2	(1)	1	(1)	100	Storage batteries, carbon products, mfg.
36.....	5	6	6	12	19	12	11	2	2	26	100	4	6	15	21	20	16	11	2	2	3	100	Telephone service (clerical force).
13.....	5	3	2	12	10	19	23	8	10	9	100	13	9	9	17	16	15	10	3	5	3	100	Telephone service (operating force).
14.....	3	1	4	12	15	22	12	4	7	19	100	15	9	16	28	17	9	3	1	1	1	100	Telephone service (plant).
10.....	4	3	7	9	5	15	11	5	5	35	100	22	10	15	23	12	8	4	1	1	4	100	Woodwork, sewing-machine cabinets, etc.
Total..	3	3	5	13	10	16	14	9	9	18	100	19	11	13	21	13	11	5	3	2	2	100	

¹ Less than 1 per cent.

² This establishment lacked the data for Table 2.

The following table shows the proportion in employ and among the separations of identical length-of-service groups of employees in 14 establishments of the city of Detroit.

TABLE 10.—PROPORTION IN EMPLOY AND AMONG THE SEPARATIONS OF CERTAIN IDENTICAL LENGTH-OF-SERVICE GROUPS OF EMPLOYEES IN 14 ESTABLISHMENTS IN DETROIT.

Length-of-service group.	Per cent of total.	
	Employed.	Separations.
1 week or under.....	3.0	21.4
Over 1 week to 2 weeks.....	3.8	15.2
Over 2 weeks to 1 month.....	5.8	14.5
Over 1 month to 3 months.....	10.8	17.0
Over 3 months to 6 months.....	10.0	11.0
Over 6 months to 1 year.....	14.4	8.5
Over 1 year to 2 years.....	15.7	6.6
Over 2 years to 3 years.....	10.8	2.4
Over 3 years to 5 years.....	7.6	1.9
Over 5 years.....	18.1	1.5
Total.....	100.0	100.0

On the assumption that the length-of-service distribution of those in employ was, throughout the year, approximately the same as the day on which the classification shown in Table 11 was based, it would seem certain that the short-service groups were responsible for an extent of separations altogether out of proportion to their relative size or importance in the organization. The service groups under one month, which groups constituted only 12.6 per cent of all employed, were responsible for more than 50 per cent of the separations. On the other hand, the combined service groups of two years or more, with a strength in the organization of 36.5 per cent, were responsible only for about 6 per cent of the separations.

Table 11 gives the detailed figures upon which Table 10 is based.

TABLE 11.—NUMBER AND PER CENT IN EMPLOY AND AMONG THE SEPARATIONS OF SPECIFIED LENGTH-OF-SERVICE GROUPS OF EMPLOYEES IN EACH OF 14 ESTABLISHMENTS IN DETROIT.

NUMBER.

Establishment No.	On pay roll at end of year.										Separated during the year.										Industry or nature of business.		
	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	One wk. or under.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.		Over 5 yrs.	Total.
22.....	22	30	39	47	31	34	45	50	51	102	451	149	122	129	194	111	132	52	45	27	17	978	Clothing, overalls, mfg.
10.....	43	43	67	181	247	283	318	198	123	338	1,841	55	34	137	233	153	146	124	49	54	55	1,040	Gas, illuminating, mfg.
35.....	2	11	32	6	18	17	6	10	49	151	91	260	110	60	20	20	6	.....	.....	.....	.....	567	Metal products mfg.
27.....	21	19	31	58	19	79	56	37	30	33	383	593	237	64	46	28	24	29	21	14	10	1,066	Do.
43 ¹	14	63	105	78	20	90	45	16	4	435	407	141	117	133	27	12	2	1	.....	.....	.....	840	Do.
29.....	6	3	10	8	20	29	45	30	60	211	257	43	16	78	143	35	83	21	13	6	6	695	Do.
21.....	20	34	24	12	9	7	53	31	23	72	285	18	264	292	219	121	121	86	14	17	15	1,167	Do.
32.....	8	13	8	14	15	22	8	50	30	75	243	47	41	70	115	52	28	10	12	7	2	384	Do.
39.....	.....	.....	2	14	25	18	21	10	15	5	110	52	111	170	47	21	43	46	28	16	3	537	Automobile mfg.
33.....	27	32	23	30	10	50	36	8	6	23	245	230	70	63	103	148	61	51	11	4	3	744	Electrical appliances mfg.
28.....	5	10	22	45	63	48	31	17	53	294	60	77	92	178	80	65	56	10	9	6	6	633	Telephone service (construction).
26.....	9	11	24	44	24	81	60	41	35	117	446	37	31	82	131	88	61	44	7	15	14	510	Telephone service (installation and maintenance).
38.....	4	1	10	12	21	34	27	15	11	23	158	13	4	13	43	26	21	13	4	4	.....	141	Telephone service (clerical).
36.....	1	1	1	4	2	47	42	17	16	23	154	2	.....	5	17	19	31	19	3	3	7	106	Telephone service (commercial).
Total.	161	205	316	585	540	776	850	584	413	977	5,407	2,011	1,435	1,360	1,597	1,037	800	621	226	183	138	9,408	

[26]

PER CENT.

97136°-10-3	22.....	5	7	9	10	7	8	10	11	11	23	100	15	12	13	20	11	13	5	5	3	2	100	Clothing, overalls, mfg. Gas, illuminating, mfg. Metal products mfg. Do. Do. Do. Do. Do. Do. Automobile mfg. Electrical appliances mfg. Telephone service (con- struction). Telephone service (instal- lation and maintenance). Telephone service (clerical). Telephone service (com- mercial).	
	10.....	2	2	4	10	13	15	17	11	7	18	100	5	3	13	22	15	14	12	5	5	5	5		100
	35.....	1	1	8	21	4	12	11	4	7	32	100	16	46	19	11	4	4	1	1	1	1	1		100
	27.....	5	5	8	15	5	21	15	10	8	9	100	56	22	6	4	3	2	3	2	2	1	1		100
	431.....	3	3	14	24	18	5	21	10	4	1	100	48	17	14	16	3	1	3	1	1	1	1		100
	29.....	3	1	5	4	9	14	21	14	28	100	37	6	2	11	21	5	12	3	2	2	1	1		100
	21.....	7	12	8	4	3	2	19	11	8	25	100	2	23	25	19	10	10	7	1	1	1	1		100
	32.....	3	5	2	6	9	3	21	12	31	100	12	11	18	30	14	7	3	3	2	1	1	1		100
	39.....	2	13	23	16	19	9	14	5	100	10	21	32	9	4	8	9	5	3	1	1	1	1		100
	33.....	11	13	9	12	4	20	15	3	2	9	100	31	9	8	14	20	8	7	1	1	1	1		100
	28.....	2	3	7	15	21	16	11	6	18	100	9	12	15	28	13	10	9	2	1	1	1	1		100
	26.....	2	2	5	10	5	18	13	9	8	26	100	7	6	16	26	17	12	9	1	3	3	3		100
	38.....	3	1	6	8	13	22	17	9	7	15	100	9	3	9	30	18	15	9	3	3	3	3		100
	36.....	1	1	1	3	1	31	27	11	10	15	100	2	.....	5	16	18	29	18	3	3	7	7		100
	Total.	3	4	6	11	10	14	16	11	7	18	100	21	15	14	17	11	9	7	2	2	2	2		100

This establishment lacked the data for Table 4.

²Less than 1 per cent.

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AVOIDABLE AND UNAVOIDABLE TURNOVER.

Attempts are frequently made to classify turnover as avoidable and unavoidable from the point of view of the responsibility of the management. Such a classification, however, is not always possible. Among the separation causes presented in Tables 6 to 8, entrances into military service may readily be classified as unavoidable. The major part of the lay-offs shown for both cities were in a sense unavoidable, because they were due to factors not within the control of the employer—mainly delays on the part of the Government authorities to deliver raw materials, such as steel, wood, cloth, etc. Not so, however, with discharges. The latter may be considered as avoidable to a significant extent. It is the opinion of many employment men that the excessive number of discharges may be greatly reduced by depriving foremen and subbosses of the power to hire and fire and the transfer of such powers to a centralized employment department.

The three principal causes of separations—discharges, lay-offs, and entrances into military service—account only for about one-fourth of the labor turnover. The remaining three-fourths (81 per cent in Cleveland and 73 per cent in Detroit) were due to voluntary separations or quits. The actual causes responsible for such quits are too complicated to permit in this report any extended generalization as to their avoidability.¹ In so far, however, as quits were due to destructive methods of labor recruiting, which in both cities developed as a result of a very sharp competition for labor, they were outside of the actual influence of individual employers and may therefore be classified as unavoidable. The fact, however, that certain establishments, with properly organized employment departments and liberal labor policies, had relatively few separations would seem to indicate that a good deal of the shifting attributable to quits could have been avoided by the institution of centralized employment departments.

¹ The following table shows the causes of separations and discharges in two Cleveland establishments during the six months' period ended June 30, 1913. The reasons for the separations, as given by the employees, were verified by personal interviews with representatives of the respective employment departments and with the men who left.

Per cent of total employees separated and discharged for each specified cause.

Cause of separation.	Per cent.	Cause of discharge.	Per cent.
Dissatisfied with wages.....	33	Insubordination.....	27
Physical disability and too hard work.....	27	Laziness.....	24
Disagreeable working conditions (dust, dirt, odor, etc.).....	20	Misconduct.....	20
To accept another position.....	8	Incompetence.....	11
Monotony of work.....	2	"Trouble making".....	10
Military service.....	2	General unreliability.....	3
Miscellaneous.....	8	Drinking.....	3
		Miscellaneous.....	2

As already stated, the great bulk of the establishments covered by this investigation were not in a position to furnish labor turnover data by occupations or even by departments. In answer to questions regarding the "occupation or department in which the extent of turnover was greatest or least and the reasons why," the almost unanimous opinion was that the largest turnover was taking place in departments predominantly unskilled, where the bulk of the employees were classified as common labor. The least turnover, it was reported, was taking place mainly "among the highly skilled employees who were earning big money and had long records of continuous service."

The extremely large turnover among the unskilled workers was due, it was repeatedly stated, to the fact that during the period covered by the investigation the demand for common labor was so great that at frequent intervals actual shortages of this kind of help were felt. The ensuing shortages resulted in a sharp competition for common labor and a consequent great shifting of workers from place to place. The competition for help was carried on by means of extensive newspaper advertising. The advertisements were so alluring that, as one large employer put it, "day workers were looking for new positions during the evening and night workers during the day."

Repeated efforts were made in both cities to eliminate these destructive methods of labor recruiting. Notwithstanding the efforts made, the Cleveland employers did not succeed in arriving at a satisfactory understanding regarding the matter. In Detroit, however, 30 of the largest establishments, affiliated with the Employers' Association of Detroit, entered into an agreement to discontinue advertising for help and to close their employment offices on Sundays and in the evening for a period of 30 days.¹ The Detroit campaign for the elimination of advertising for help met, it was stated, with a

¹ The following letter, addressed to members of the Employers' Association of Detroit, was sent out by the general manager of the association on April 29, 1918:

"Members of the Employers' Association of Detroit.

"GENTLEMEN: The following agreement was entered into last Friday evening by 30 employers, nonmembers as well as members of this association, included among whom is every employer using large display advertisements in the liner columns:

We, the undersigned employers of Detroit, hereby agree that for a period of 30 days from and after May 1st, 1918, we will not place advertisements for the employment of labor, skilled, semiskilled, or unskilled, in the papers published in Detroit; further, that our employment departments will be closed on Sundays, and that they will be open on workdays only between the hours of 6.30 a. m. and 5 p. m.

"We have said so much to our members regarding the practice of advertising, and the evil at the present time is so self-evident, that it seems unnecessary to consume your time by enlarging upon it now.

"These 30 firms, through their chief executives, have agreed to thoroughly try out our proposal to eliminate all advertising for help. The success of the venture depends largely upon the cooperation of all other employers. Our executive board has assumed that our membership will fall in line 100 per cent. We are also communicating with every other employer who has used the liners during the past 60 days."

The agreement of April 29, 1918, was renewed for another period of 30 days on May 30, with the following amendment: " * * * we will not send representatives of our employment department to the gates of other concerns or to the vicinity or location of other plants for the purpose of soliciting the labor of the employees of those concerns as they go or leave their work." This agreement was renewed again for a 30-day period on July 1, 1918.

fair degree of success. A number of firms reported decreased turnover, attributable more or less to the greatly diminished extent of advertising for help. In a subsequent circular letter, dated May 10, 1918, the general manager of the Employers' Association of Detroit stated that of the 30 firms above mentioned "only 10 per cent advertised on May 5, which was the first Sunday in the 30-day period in which it was decided not to advertise."

LABOR AND THE WAR.

AWARDS AND FINDINGS OF THE NATIONAL WAR LABOR BOARD.

A large number of awards, 20 of which affect street and interurban railway employees, were handed down by the National War Labor Board during the period November 19 to December 5, inclusive. Most of them announce no new principles, merely reaffirming the attitude of the board on the organization of shop committees, right to organize, reinstatement of workers discharged for union affiliation, hours of labor, overtime pay, retroactive pay, safety appliances and sanitation, etc., and are not mentioned in this account.

Perhaps the most important award from the standpoint of wages is that of *Employees v. Corn Products Refining Co.* (Docket No. 130) having plants in several cities. In this award a new basis for the fixing of minimum wages is established. Instead of recognizing the old standard that women should be paid a lower minimum than men for work not usually done by men, the board definitely takes the position that wages should be fixed solely on the basis of the difficulty of the work required to be performed and the degree of responsibility which workers are expected to assume. It is, in short, an attempt to make a fair adjustment of wage inequities. The problem confronting the examiners of the board in meeting the unusual situation presented by the nature of the industry, in their effort to arrive at an adjustment of wages that would be fair to all workers, is apparent from a reading of section 16 of the award dealing with wages. To make the situation perfectly clear portions of the section are reproduced:

In fixing the wages for this award, the National War Labor Board was confronted with a task made more than ordinarily difficult by reason of the fact that the processes in the plants of the company are peculiar to that industry and the positions in the plant are therefore not comparable to positions in other industries and plants, the duties attached to which are more or less generally understood.

A study was made of the pay rolls of the company, but these failed to throw sufficient light on the problem, for the reason principally, that their form is governed by the company's cost account system and it was impossible to tell from them even what rates were being paid to employees doing identical work.

In order that a foundation might be laid for an equitable wage award a classification of the positions in the company's plants was deemed desirable, to include a grading of the positions on the basis of the duties and responsibilities attached to each.

Examiners of the National War Labor Board went into the plants of the company and made a study of the positions. No standardization of duties or titles was attempted, this obviously not being the function of the board. Since no other positions,

the duties and responsibilities of which are generally understood and to which this company's positions could be compared, had come before the board, the effort of the examiners was to set up a measure by which to compare the company's positions to each other.

After the positions had been listed and the duties and responsibilities of each had been studied, they were divided into general classes called "services" on a functional basis, the purpose being to segregate positions attached to the development of each function in the plants in order to facilitate the grading of the positions. * * *

Within these services grades were set up, to understand which it is necessary only to define the grades in one of the services, the standards for grading being similar, although not identical, in all services. The grade definitions of the corn-process service are here set out as follows:

Grade 1: Composed of positions in the corn process service that require performance of routine tasks; not more than a few days' training; no previous experience; no exercise of independent judgment; no making of tests or keeping of records; no responsibility for the operation of machinery or apparatus or the work of others; but which may require the turning on or off of valves, switches or power; the performance of other simple operations connected with machinery or apparatus under the detailed supervision of an immediate superior; or the starting or stopping of machinery or apparatus incidental to emergencies.

Grade 2: Composed of positions in the corn-process service that require performance of responsible tasks that can be learned in not to exceed a few weeks' training; and which may require the exercise of independent judgment; the making of simple tests; the keeping of simple records; responsibility for the operation of machinery or apparatus; direction of the work of helpers; the performance or supervision of minor operation in the processes; or the care of machinery or apparatus used in the processes.

Grade 3: Composed of responsible positions in the corn-process service that require skill; considerable intelligence; a considerable period of training; the exercise of independent judgment; the making of ordinary tests; the keeping of ordinary records; direction of the work of others; the performance or supervision of major operations in the processes; responsibility for the care or operation of machinery or apparatus; or which may require responsibility for or some control of the proportions or condition of ingredients that enter into the finished product.

Grade 4: Composed of positions in the corn-process service requiring mechanical ability of a high order; and specialized knowledge of, entire familiarity with and long experience in operating the more complicated types of machinery used in the processes.

Within these grades are two, and in some cases three, groups of positions, based on distinction between lighter and heavier tasks, more and less agreeable duties, and the like.

On the basis of this classification which was designed for the purposes of this wage award only, the board awarded minimum wage rates of 35 cents in grade 1 and 70 cents in grade 4, depending on the service.

MINNEAPOLIS STEEL & MACHINERY CO. CASE.

In the matter of Gustav Eichom, Louis Cummings, F. Bodenson and others, including 2,000 employees of the Minneapolis Steel & Machinery Co., represented by Local Union No. 91 of the International Association of Machinists of the city of Minneapolis, against

the Minneapolis Steel & Machinery Co. (Docket No. 46), the complaint of the employees charges the company with interfering with the rights of its employees to organize in trade-unions; avers that the company has discharged from its service a number of employees for joining Local No. 91; charges that the company pays inadequate wages, and does not give equal pay for men and women engaged in the same work; and that it does not permit its employees to bargain collectively. It asks for an award by the board, by which the company shall be enjoined from interfering with the rights of its employees to organize in trade-unions and be required to restore such employees as it has discharged for becoming members of a trade-union, that certain rates of wages, specified in the complaint, be awarded, and that equal pay for men and women be required, and that a procedure be secured for collective bargaining between employees and the employer.

The award notes that the defendant company entered a plea to the jurisdiction on the following grounds:

1. That no controversy exists between the company and its employees such as is averred.
2. That 90 per cent of the work of the company is done under contracts of the War Department, which themselves provide for settling labor disputes other than through this board.
3. That the board in assuming jurisdiction and proceeding to adjudicate the matters set forth in the complaint would be compelling the company to deal with a labor union, contrary to its policy prior to the war.
4. That the complaint is improper, in that it is signed by certain officers of the union, and not by the employees of the company.
5. That this board should not take jurisdiction of the matters presented in the complaint, because it is a case properly within the cognizance of the Minnesota State Board of Arbitration, which has jurisdiction under an order of the Minnesota Commission of Public Safety giving the power of compulsory arbitration in such cases as are made by the complaint.

It may be said that the first, third, and fourth paragraphs of this plea are dismissed with little comment, the board confining itself to the second and fifth paragraphs, which are "the only real portions of the plea that properly raise the question of jurisdiction." Without following in detail the line of argument pursued by the board in making its decision, it is sufficient to note that, as to the second paragraph, the board holds that it does not come within a previously announced decision in which it was held "that an agreement for arbitration and the settlement of differences entered into by the employees and the employer did prevent this board from taking jurisdiction until that conventional means of settling the controversy had been invoked." The right of the board to assume jurisdiction was therefore maintained.

As to the fifth paragraph of the plea, the board holds that there is no conflict of jurisdiction. "The complainants have elected to come before a Federal board, as distinguished from a State board, to secure rights in respect to which either board has power to hear and consider their complaint."

The employees of the defendant companies come to this National War Labor Board and invoke its remedial jurisdiction to secure to them the right to be members of a trade-union and exercise legitimate union activities, without interference by the company, and to secure from the company compliance with other principles of this board which they aver the company is violating. Does the fact that there is another tribunal under State organization, as above described, to which complainants might have applied, but to which they have not applied, and which has taken no cognizance of this controversy, oust this board from the jurisdiction conferred upon it by the President? We have no hesitation in answering this question in the negative.

The board then orders—

That the plea to the jurisdiction having come on for hearing before the section of the board, the section finds that the defendant company can take nothing by the plea and it is overruled. Four days are given to the defendant to answer the averments of the complaint, if it be so advised, and after the time for answer shall have expired, whether an answer be filed or not, the secretary shall direct examiners to repair to Minneapolis and there to hear the issues on the averments of the complaints and of the answers, if they are filed.

AWARDS AFFECTING STREET AND INTERURBAN RAILWAY EMPLOYEES.

Twenty awards handed down by the National War Labor Board between November 20 and December 5, 1918, make changes in rates of wages for street and interurban railway employees. To meet the added expense occasioned by these increases in wages the board recommends in practically every case that reconsideration be given by the proper authority of the fare which the company is allowed to collect from its passengers, the text of this portion of the award being the same as that used in the award in the Cleveland case.¹

The new scale of wages granted in these awards and the company and employees affected are set forth in the following table. In each of the cases noted the controversy is between specified divisions of the Amalgamated Association of Street and Electric Railway Employees of America and the respective companies, and the name of the association is therefore not repeated in each instance.

¹ Employees v. Cleveland Railway Co. (Docket No. 31). Award made by National War Labor Board on July 31, 1918. Noted in the MONTHLY LABOR REVIEW for September, 1918 (pp. 30-33).

NEW SCALE OF WAGES GRANTED BY NATIONAL WAR LABOR BOARD TO EMPLOYEES OF CERTAIN STREET AND INTERURBAN RAILWAY LINES.

Case and docket number. ¹	First 3 months of service.	Next 9 months of service.	After 12 months' service.
Amalgamated Association of Street and Electric Railway Employees of America, Division No. 610, v. Charleston Consolidated Railway & Lighting Co. (Docket No. 695).....	Cents. 36	Cents. 38	Cents. 40
Division No. 732 v. Georgia Railway & Power Co., Atlanta, Ga. (and Atlanta Northern Railway Co., the latter a party defendant by its own motion), (Docket No. 159).....	36	38	40
Division No. 199 v. Gttumwa Railway & Light Co. (Docket No. 268).....	38	40	42
Division No. 697 and International Brotherhood of Electrical Workers, Local 245 v. Toledo, Bowling Green & Southern Traction Co. (Docket No. 527).....	38	40	42
Division No. 697 and International Brotherhood of Electrical Workers, Local 245 v. Toledo, Bowling Green & Southern Traction Co. (Docket No. 527), interurban lines.....	38	40	43
Division No. 669 v. Auburn & Syracuse Electric Railroad Co. (Docket No. 203) ²	38	40	42
Divisions No. 681 and No. 737 v. Empire State Railroad Corporation (Docket No. 289).....	38	40	42
Divisions No. 681 and No. 737 v. Empire State Railroad Corporation (Docket No. 289), interurban lines.....	41	43	45
Division No. 631 v. Provident Savings Bank & Trust Co., Receivers, Cincinnati, Milford & Loveland Traction Co. (Docket No. 410).....	38	40	42
Divisions No. 721 and No. 724 v. Lewiston, Augusta & Waterville Street Railway Co. (Docket No. 448).....	39	41	43
Divisions Nos. 174, 235, 238, 240, 243, 246, 249, 253, 261, 270, 280, 373, 473, 503, 551, and 688 v. Bay State Street Railway Co. (Docket No. 634).....	41	43	45
Divisions Nos. 568, 592, and 624 v. Buffalo & Lake Erie Traction Co. (Docket No. 628).....	41	43	45
Division No. 737 v. Syracuse Northern Electric Railway, Inc. (Docket No. 246).....	41	43	45
Division No. 714 v. Cumberland County Power & Light Co. (Docket No. 432).....	41	43	45
Division No. 627 v. Cincinnati & Columbus Traction Co. (Docket No. 409).....	41	43	45
Division 627 v. Edgar Stark and C. E. Hooven, Receivers, Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co. (Docket No. 407).....	41	43	45
Division No. 805 v. East St. Louis, Columbia & Waterloo Railway (Docket No. 175) ³	41	43	45
Division No. 627 v. Cincinnati Traction Co. (Docket No. 408).....	43	46	48
Division No. 746 v. Denver Tramway Co. (Docket No. 173).....	43	46	48
Division No. 381 v. Butte Electric Railway Co. (Docket No. 271).....	61	63	65

¹ The name of the union organization involved in these cases is given only in the first case and is understood to apply to the other cases, in which the division number only is given.

² On the interurban lines of this company the new rate is 44 cents per hour in the passenger service and 47 cents per hour in the freight service.

³ The new scale for freight motormen is 48 cents per hour.

In one award, not noted above, the case of employees, interurban lines, members of Brotherhood of Locomotive Engineers, Division No. 277, Brotherhood of Railway Trainmen, Division No. 130, and Order of Railway Conductors, Division No. 91, v. Portland Railway, Light & Power Co. (Docket No. 210), it is stipulated that the wage scale shall be as follows:

	Cents per hour.
(a) Passenger trainmen.....	54
(b) Freight trainmen:	
Express, local freight, and day yard crews.....	56
Night yard crews.....	60
(c) Passenger and freight brakemen.....	47
Day yard crews.....	59
Night yard crews.....	60

In another award not included in the table, Amalgamated Association of Street and Electric Railway Employees of America, Divi-

sions No. 669 and No. 737, *v. Rochester & Syracuse Railway Co. (Inc.)* (Docket No. 278), the wages of substation men are fixed as follows:

Substation operators \$4.25 for 12 or 10 hours, \$3.64 for 8 hours. Substation operators (apprentice) with less than one year of service \$3.45 for 8 hours. Substation repair men \$4.25 for 10 hours.

The wages of employees other than those fixed above which have been submitted to the board for fixation shall be increased by 20 per cent: *Provided, however*, That if this percentage increase does not bring the wage of any adult male employee up to the minimum of 42 cents per hour he shall be paid said minimum of 42 cents per hour up to not more than 10 hours' work per day: *And provided further*, That where women are employed in the same classification as men they shall be paid equal pay for equal work.

OTHER DECISIONS BY THE NATIONAL WAR LABOR BOARD.

In two cases, *International Brotherhood of Electrical Workers v. Northern Indiana Gas & Electric Co., Hammond, Ind.* (Docket No. 45), and *Electrical Linemen v. Erie Light Co. and Erie County Lighting Co., Erie, Pa.* (Docket No. 133), the board awards wages of 70 cents per hour to all linemen, adding that the wages of the other employees shall be increased in the same proportion. In the former case, on the subject of protection of workers, the demands of the employees that (a) the company shall furnish the necessary rubber appliances to protect them in cases of high voltage in excess of 550 volts, and that (b) the company shall furnish rubber coats and boots to workers in inclement weather, are granted, and the company is directed to comply with this order. Certain demands of the workers, however, were denied, as the following quotation from the award indicates:

The demands of the workers for an order to provide (a) that free meals be furnished the workers held after regular hours; (b) that there be no penalization of workers in bad weather; and (c) that foremen on jobs be not allowed to use tools, are denied, for the obvious reason that the increase of wages and pay for overtime herein granted amply compensate the workers for the inconveniences suggested in paragraphs (a) and (b), and, with reference to paragraph (c), that such a demand is inconsistent with the times and unreasonable in view of the present necessity for the fullest possible utilization of the forces of production.

In the case of Local 426 of the District Council 21, *Brotherhood of Painters, Paper Hangers and Decorators of North America v. Manufacturers of Interior Woodwork of Philadelphia, etc.* (Docket No. 230), the wages of painters and wood finishers are fixed at 60 cents per hour and the demand for a 44-hour week is denied. The wages of journeymen are fixed at \$6 per day in the case, *International Brotherhood of Electrical Workers v. Intermountain Power Co., Spokane, Wash.* (Docket No. 440). An award affecting coopers employed by the *Sinclair Refining Co., Coffeyville, Kans.* (Docket No. 395), establishes an hourly wage of 65 cents. In the case of *Employees v. Reading Iron Co., Reading, Pa.* (Docket No. 416), the following paragraphs appear:

The rate paid to puddlers shall be increased 15 per cent per ton over the rates in effect August 4, 1918, and to puddle rollers and bar-iron finishers 10 per cent, and skelp finishers 8 per cent over the rates in effect August 4, 1918.

The wages of all employees on an hourly basis in the tube mills, also including the maintenance men, the hammer men, and the forge men, are to be increased 5 cents per hour over the rates in effect September 29, 1918, and pieceworkers in the tube mills 15 per cent as of same date.

All day and hourly employees of the St. Louis Coffin Co. (Docket No. 258) are awarded by the board an increase of 25 per cent on the rates in effect July 26, 1918, although an increase of 15 per cent was granted to these workers on June 26, 1918. Minimum rates for women workers are fixed as noted elsewhere in this issue of the MONTHLY LABOR REVIEW (pp. 203 to 209).

Supplementary findings of the joint chairmen of the board as arbitrators in re *Employees v. General Electric Co.*, Schenectady works, increase horizontally by 15 and 20 per cent the wages, respectively, of male and female clerical workers. A minimum wage of \$16.50 per week is fixed for females of 18 years of age and over, and the minimum wage for male clerical workers 21 years of age and over is fixed at \$22.50 per week. Bonuses are to be considered as wages in computing the amount of increase to each employee.

ACTION ON DISPUTES LIMITED BY NATIONAL WAR LABOR BOARD.

In the statement issued by the National War Labor Board on May 13, 1918, announcing the plan of procedure and methods to be followed in all cases submitted to it,¹ the following paragraphs appeared:

Any person desiring to bring before the National War Labor Board an issue between employer and employees, of which the board has cognizance, shall deliver to the secretary of the board a written statement, signed by him, with his proper post-office address at his home and in Washington. The statement shall contain a brief description of the grievance and the names of the persons or corporations against whom he complains, with their post-office address.

Where an employer and employees both desire to submit a controversy to the board they shall sign a short joint statement of the issue between them, with their respective post-office addresses, and request the action of the board. They shall deliver this signed statement to the secretary of the board.

Early in December the board issued a statement modifying this plan by announcing that in the future it will act only in such cases as are jointly submitted to it for arbitration, all other cases being referred to the Department of Labor for consideration by its adjustment service. This attitude of the board is set forth as follows:

In order to meet the changed conditions resulting from the signing of the armistice, and the withdrawal of the Federal Government's control over the industries of the country, the National War Labor Board, after conference with the Secretary of Labor,

¹ See MONTHLY REVIEW for June, 1918 (pp. 54-56).

has made an order providing that in the future it will act only in such cases as are jointly submitted to it for arbitration. All complaints filed after December 5, setting forth industrial controversies, will, therefore, be referred to the Labor Department for action by its Mediation and Conciliation Bureau. Failing settlement in such cases, the Secretary of Labor will refer back to the War Labor Board only the cases in which both parties voluntarily submit the issues to the jurisdiction of the National War Labor Board and agree to abide by its decision. All cases now before the board will be handled as they have been in the past.

This action was concurred in by all the members of the National War Labor Board, and was approved by the Secretary of Labor.

PRIORITY RATINGS CANCELED AND RESTRICTIONS AFFECTING NON-WAR INDUSTRIES REMOVED BY WAR INDUSTRIES BOARD.

On September 3, 1918, a preference list¹ was issued by the War Industries Board, which list was to be regarded as the basis for industrial exemption from the draft and as the governing factor in the distribution of labor, capital, facilities, material, transportation, and fuel. The purpose was to assure and control the flow of basic industrial elements to the industries essential to the war program. Following the signing of the armistice on November 11, and recognizing the lessened demand for materials to be used for war purposes and the consequent removal of the pressing need for priorities assistance, the War Industries Board took measures to redirect to their normal channels the supplies of materials, labor, etc., that had been diverted in favor of war industries. This was effected by an order (Circular No. 58) issued by the priorities division on November 20, effective November 22. The order formally canceled all outstanding priority ratings, whether by certificate or automatic rating, excepting those for the Navy, the Emergency Fleet Corporation, railroads, telegraph, and telephone companies. A subsequent order (Circular No. 60), issued on December 20, provides for the revocation of all restrictions, as follows:

Effective January 1, 1919, all the rules, regulations, and directions of every nature whatsoever, issued by the priorities division of the War Industries Board, are hereby canceled, and all pledges heretofore made on the suggestion or request of the said priorities division are hereby revoked.

RESTRICTIONS AFFECTING NONWAR PRODUCTS REMOVED.

Restrictions and curtailments affecting a long list of nonwar products were removed by the War Industries Board in an order issued on November 11, 1918 (Circular No. 57), in accordance with its announced policy of gradually granting to manufacturers and builders a freer use of commodities necessary for private and public construction work and for the manufacture of products classed as

¹ This list was published in the MONTHLY LABOR REVIEW for October, 1918 (pp. 28-34).

nonessentials. In a subsequent order all remaining restrictions on nonwar construction throughout the United States were officially removed. This action of the War Industries Board has the approval of the Council of National Defense, which has requested that widespread publicity be given to it so that building operations may be speedily resumed. The United States Employment Service is closely in touch with the demand for labor created by this resumption of building and construction work, and is effectively meeting the new labor requirements.

The War Industries Board as such ceased to exist on December 31, 1918. Some of its functions, however, will, as long as necessary, be carried out by other Government agencies.

RECONSTRUCTION.

RECONSTRUCTION CONGRESS OF AMERICAN INDUSTRIES AT ATLANTIC CITY.

More than 5,000 business men, representing nearly 400 industries, met in congress at Atlantic City December 3 to 6, 1918, to discuss questions of reconstruction. The congress was called by the Chamber of Commerce of the United States. Among other things, the congress decided to continue the war service committees of industry which rendered effective aid to the Government in the mobilization of the country's industrial resources for the war. These committees voted to federate themselves into an association of industry to endeavor to solve the problems of readjustment that have arisen with the sudden termination of the war. There was held simultaneously with the congress a conference of the national councilors of the Chamber of Commerce of the United States and of presidents and secretaries of commercial and trade organizations making up the chamber's organization membership. In addition to the general meetings of the congress group meetings were held in which allied crafts gathered together. There were 35 of these groups. The committees also met in 10 major groups representing the 10 basic industries of the United States as respects use of raw materials. Finally, all of the conclusions reached were sifted by a clearance committee, which reported them to a general session for decision. The congress was formally opened on December 4, the introductory address being delivered by Harry A. Wheeler, of Chicago, president of the Chamber of Commerce of the United States. Perhaps his most important suggestion was that a business commission be sent to Europe to be available if the American Government's representatives at the peace conference should desire the advice and counsel of business men. This proposal was put into a resolution and unanimously adopted by the congress. Among those who addressed the congress were Hon. William C. Redfield, Secretary of Commerce, who outlined America's opportunity in international trade; Charles M. Schwab, former director general of the United States Emergency Fleet Corporation, who urged continued effort in the direction of merchant shipbuilding; James A. Farrell, president of the United States Steel Corporation, who spoke of the future of the country's foreign trade; John D. Rockefeller, jr., who presented a new industrial relations creed, which later was adopted by the congress in resolutions; Henry

P. Kendall, chairman of the Chamber of Commerce committee on industrial relations, who spoke on the labor situation; Edward A. Filene, of Boston, Mass., who spoke on the American merchant marine; Paul M. Warburg, former member of the Federal Reserve Board, who addressed the conference on finance after the war; and Alba Johnson, who spoke on taxation.

RESOLUTIONS ADOPTED BY THE CONGRESS.

Following is the complete text of the resolutions adopted by the congress:

CANCELLATION OF WAR CONTRACTS.

It is in the public interest that all war orders placed by any contracting agency of the Government and accepted in good faith, whether formally and regularly executed or not, should, upon cancellation by such contracting agency, be promptly and equitably adjusted and satisfied as if every formality had been observed, and when so adjusted the amount ascertained to be due by the Government should be promptly paid, to the end that these funds may be utilized by the industries of the country to speed their transition from a war to a peace basis.

If it should be ascertained that legislation is necessary or desirable to accomplish this end, Congress should forthwith enact such legislation.

Officials dealing with questions of adjustment on account of war orders must necessarily be familiar with all the conditions affecting the orders. It will greatly promote expedition and the interests of both the Government and private enterprise for the officials who made the contracts to remain in the Government service to participate in the readjustment.

SURPLUS GOVERNMENT SUPPLIES.

Under date of November 29, 1918, the Secretary of War issued a public statement, in which he said: "To prevent too violent dislocation of industry from the standpoint of both employee and employer, accumulations by the War Department of either raw material or finished products will be distributed when and where liquidation of such supplies will least interfere with the return of industry to normal conditions." Such action would seem to insure the stability of the industries affected, which fully appreciate this liberal position.

Therefore, the War Service Committees of American Industries hereby tender to the War Department their services on behalf of their respective industries for the purpose of advising with and assisting the War Department in the disposition of such materials.

REMOVAL OF RESTRICTIONS ON INDUSTRY.

It is in the public interest that all war regulations of industry should be revoked, and all war restrictions on industry should be removed, as speedily as practicable, save in the case of such industries as are engaged in the production, preparation, or distribution of foods, feeds, and fuel, and such last-named group of industries should be freed from war regulations and restrictions as early as consistent with the welfare of this nation and of the allies.

PIVOTAL INDUSTRIES.

Conditions brought upon us by the European war at its beginning, as well as our national necessities after we entered the war, made it of the highest importance that a number of industries should at once be developed in the United States. Large investments, both of capital and skill, have since been placed in these enterprises. Upon the production of some of them, relatively small in themselves, the continuation

of some of our largest industries has depended. Some of the recently developed industries have national importance in fields much broader than the markets of their products; for they may serve, for example, to promote scientific research, which will add to national efficiency, resources, and wealth in many distinct ways.

It becomes essential, therefore, that the Government should at once proceed to ascertain the industries which have been developed during the European war and ascertain those the maintenance of which is indispensable for the safety of our industrial structure and our military establishment.

When these pivotal industries have been ascertained, means suitable in view of their nature and situations should at once be provided for their encouragement and preservation.

INDUSTRIAL COOPERATION.

The war has demonstrated that through industrial cooperation great economies may be achieved, waste eliminated, and efficiency increased. The Nation should not forget, but rather should capitalize, these lessons by adapting effective war practices to peace conditions through permitting reasonable cooperation between units of industry under appropriate Federal supervision. It is in the public interest that reasonable trade agreements should be entered into, but the failure of the Government either clearly to define the dividing line between those agreements which are and those which are not in unreasonable restraint of commerce, or to provide an agency to speak for it on application of those proposing to enter into such agreement in effect restricts wholesome cooperation and deprives both industry and the general public of its benefits. The conditions incident to the period of readjustment renders it imperative that all obstacles to reasonable cooperation be immediately removed through appropriate legislation.

FEDERAL TRADE COMMISSION.

The Federal Trade Commission was advocated by the President and was created as an agency to make the administration of our trust legislation explicit and intelligible, and to provide "the advice, the definite guidance, and information" which business enterprises require. The normal importance of the commission's task is now tremendously increased by the imperative need for whole-hearted and sympathetic cooperation between the Government and industry, especially during the readjustment period, and suggests the desirability of the two existing vacancies in the commission's membership being promptly filled with able men of broad business experience and clear vision, prepared to assist actively in discharging these tasks along constructive lines.

INDUSTRIAL RELATIONS.

The convention heartily indorses in letter and spirit the principles of the industrial creed so clearly and forcibly stated in the paper read to it Thursday morning by Mr. John D. Rockefeller, jr., and urges upon all units of industry—where they may not now be employed—the application of such principles. Without approving or rejecting his particular plan or machinery, the principles advanced by Mr. Rockefeller are as follows:

1. Labor and capital are partners, not enemies; their interests are common interests, not opposed, and neither can attain the fullest measure of prosperity at the expense of the other but only in association with the other.

2. The purpose of industry is quite as much to advance social well-being as material well-being and in the pursuit of that purpose the interests of the community should be carefully considered, the well-being of the employees as respects living and working conditions should be fully guarded, management should be adequately recognized, and capital should be justly compensated, and failure in any of these particulars means loss to all.

3. Every man is entitled to an opportunity to earn a living, to fair wages, to reasonable hours of work and proper working conditions, to a decent home, to the opportunity to play, to learn, to worship, and to love, as well as to toil, and the responsibility rests as heavily upon industry as upon government or society to see that these conditions and opportunities prevail.

4. Industry, efficiency, and initiative, wherever found, should be encouraged and adequately rewarded, and indolence, indifference, and restriction of production should be discountenanced.

5. The provision of adequate means for uncovering grievances, and promptly adjusting them, is of fundamental importance to the successful conduct of industry.

6. The most potent measure in bringing about industrial harmony and prosperity is adequate representation of the parties in interest; existing forms of representation should be carefully studied and availed of in so far as they may be found to have merit and are adaptable to the peculiar conditions in the various industries.

7. The application of right principles never fails to effect right relations; the letter killeth and the spirit maketh alive; forms are wholly secondary while attitude and spirit are all important, and only as the parties in industry are animated by the spirit of fair play, justice to all, and brotherhood, will any plans which they may mutually work out succeed.

8. That man renders the greatest social service who so cooperates in the organization of industry as to afford to the largest number of men the greatest opportunity for self-development and the enjoyment by every man of those benefits which his own work adds to the wealth of civilization.

RELOCATION OF LABOR.

The conversion of the industry of the country from a peace basis to a war basis involved a general and important dislocation of labor. This movement was gradual. The end of the war involves a much more rapid change in industry; while there will be a great demand for labor to meet the foreign and domestic requirements there may be for a time in special places a temporary condition of unemployment.

In the new relations of industry to labor we conceive it to be incumbent upon the community affected promptly to meet such conditions.

The local chambers of commerce should be able to contribute in an important way in this work.

PUBLIC WORKS.

The development of public works of every sort, as recommended by the President, should promptly be resumed, in order that opportunities of employment may be created for unskilled labor.

TAXATION.

The cessation of hostilities brings to business interests a feeling of deep concern in the matter of taxation. The problems of readjustment are made more difficult through inequalities in the present law.

We believe, therefore, that in the consideration of amendments to the present act, or the passage of new revenue legislation, the Congress should give most careful consideration to the views expressed by organizations of commerce and industry. Ability to pay, inventory values, and proper reserves, together with careful survey of the amount of revenue required under the new conditions, are matters of vital importance to business interests of the Nation during this readjustment period.

INVENTORIES.

We urge that Congress should give careful consideration to the grave menace now facing all industry due to the fact that both raw materials and finished goods are carried in full measure to meet the extraordinary requirements of the Government

and of the people, and that in large part the stocks have been acquired at abnormal cost and are therefore carried into inventories at inflated values, thereby showing apparent profits which have not been realized, and which probably will never be fully realized. These are largely bookkeeping or "paper" profits, and should not be used as a basis for taxation.

We therefore recommend that any tax law shall provide that during present conditions the taxpayer shall be allowed to make a deduction from his apparent profit by way of a reserve for a subsequent shrinkage in the value of merchandise.

We believe that the interests of the Government can be protected against abuse of this privilege by the fixing of a maximum percentage of deduction to be allowed, and by the use of proper methods of inspection and appraisal.

RAILROADS.

The Congress of the United States should speedily enact legislation providing for the early return, under Federal charters, to their owners of all railroads now being operated by this Government under Federal regulations permitting the elimination of wasteful competition, the pooling of equipment, combinations or consolidations through ownership or otherwise in the operation of terminals, and such other practices as will tend to economies without destroying competition in service.

MEANS OF COMMUNICATION.

We are opposed to Government ownership and operation of telegraphs, telephones, and cables.

MERCHANT MARINE.

We recommend that the construction of a great merchant marine be continued and amplified, and that its operation under American control be kept safe by such legislation as may be necessary to insure its stability and its lasting value to American industries.

PORT FACILITIES.

The recommendations of the Port and Harbor Facilities Commission of the United States Shipping Board for development of American ports are supported. Vessels of foreign register needed for our commerce by sea are attracted to those ports which are best fitted to coal, to load, and to unload cargoes, and thus provide means for a quick turn-around. After ascertaining the port facilities of European countries and their plans for further development, the commission has recommended that there should be a local port commission at each of the important ports upon our coasts; that upon these commissions there should be representatives of industrial, commercial, and railroad interests centering at the port; that facilities should be installed to meet the needs of the port; and that a zone system should be arranged by which exports and imports would flow through those ports which are within economic transportation distance of the points of origin and destination. There should be cooperation with the Facilities Commission in its task of expending means which will enhance the position of the United States among maritime nations.

PUBLIC UTILITIES.

Public utilities have faced difficult problems, which have been accentuated by conditions arising out of war. The development and efficiency of such a utility as local transportation has immediate importance for every community. It is recommended that the Chamber of Commerce of the United States should appoint a committee to investigate and study the question of local transportation as it relates to the control of rates and service, franchises, taxes, the attraction of capital into the business, and such other questions as the committee may find pertinent. Such a committee should report its recommendations to the board of directors of the national

chamber, and the board should deal with them in accordance with the established procedure of the chamber.

WATER POWERS.

Industrial activity is dependent upon the available supply of power. A bill which would affect the development of hydroelectric power upon waterways and lands which are subject to Federal jurisdiction is now before a committee of conference between the two Houses of Congress. It is important in the public interest that Federal legislation on this subject should be enacted without further delay. We accordingly urge that the conference committee arrive at an acceptable form of legislation in season for enactment at this session of Congress.

INTERNATIONAL RECONSTRUCTION.

In war we have made common cause with the Allies. We should likewise make common cause with them in seeking the solution of the immediate problems of reconstruction which they face, because of the efforts they put forth in the war. These problems peculiarly depend for their solution upon commerce.

Raw materials and industrial equipment which we possess the Allies urgently require that they may reconstitute their economic life. We should deal generously with them in sharing these resources.

In order that we may share our materials with the Allies, we must also provide them with credits through which they may make the necessary payments.

Our ocean tonnage must supply our troops overseas and help to provision the inhabitants of war-devastated regions. The part of our ocean tonnage not required for these paramount needs, and vessels of associated countries which are in a similar situation, should be entered in the common service of all nations. This common service should secure all nations their immediate needs for food, raw materials, and transport for their products.

EUROPEAN COMMISSION.

The business men of the United States, having devoted their energies and resources toward the winning of the war, regardless of sacrifices or burdens, in support of the principles for which this country fought, appreciate the necessity of continuance of unremitting effort in order that the world may be restored to normal conditions as quickly as possible and the blessings of peace brought to all peoples.

In the accomplishment of these results the highest efficiency of the great commercial and industrial powers of our own country and that of the Allied nations will be developed only through cooperative effort and common counsel.

In order, therefore, to contribute to the fullest toward the prompt solution of the problem presented, the Chamber of Commerce of the United States is requested to enlist the cooperation of national bodies devoted to the extension and promotion of American commerce and particularly foreign trade, in the appointment of a commission representative of American business, which shall proceed without delay to Europe and establish machinery for the following purposes:

A. To study at first hand the reconstruction needs of European countries in conjunction with business men of these nations, in order to advise the business men of the United States as to how they may be most helpful in meeting the necessities of Europe and caring for the interests of American industry and commerce.

B. To be available to the peace delegates of the United States for any needed information which they may be able to present or for any other aid which may be given by the business men of the United States through the medium of such a commission.

The Chamber of Commerce of the United States also is requested to appoint members of the Commission to represent the business men of the United States at the forthcoming meeting of the permanent committees of the International Congress of Chambers of

Commerce

MARKETS FOR FOREIGN TRADE.

We strongly urge upon our Government the vital necessity of encouraging and developing our foreign trade through all appropriate means possible, in order that the production of industry may afford employment to wage earners and prosperity to the Nation.

SOUTH AMERICAN RELATIONS.

It has long been the policy of this Nation to cultivate relations of close sympathy with the nations of the western hemisphere as expressed in the Monroe Doctrine. We believe that those relations should be supplemented and strengthened by a vigorous development of our commercial and financial association with our neighbors of North and South America.

The Government's control of shipping should be brought to the accomplishment of this purpose as soon as it is consistent with other urgent needs, and the work of the Pan-American Union should be continued and broadened in scope.

PROPERTY RIGHTS IN MEXICO.

By provisions in a constitution adopted while much of the country was engaged in civil strife, and through subsequent legislation, Mexican authorities have threatened rights acquired by Americans in good faith, especially in minerals, including petroleum. Against threatened confiscation the American Government made formal protests. The attitude taken by the American Government is heartily commended as in accordance with obvious justice.

EDUCATION FOR FOREIGN COMMERCE.

In the larger opportunities which are to be opened to American business men to play a part in the international commerce of the world the need will be felt for more men who are trained to a knowledge and understanding of the language, the business methods, and the habits of thought of foreign lands. Complete success can only come to those who succeed in putting themselves into full accord and sympathy with the peoples with whom they are to deal.

We urge upon our industrialists that they take steps to provide opportunities to young men to obtain an education in the practices of overseas commerce and finance and in the practical use of foreign languages.

We call the attention of the various departments of Government and of educators to the importance of this matter and ask that special efforts be made to supplement the valuable work already done and to open up every facility to the furtherance of a successful prosecution of this educational work.

FOREST PRODUCTS LABORATORIES.

The Forest Products Laboratories, of the United States Forest Service, have rendered valuable service through scientific investigation of the physical properties of American woods and their adaptability for structural, industrial, and ornamental usage. It is of great importance to American industry that the Government should extend and adequately maintain the work of the Forest Products Laboratories.

COST ACCOUNTING.

It is the sense of this convention that a system of uniform cost accounting should be adopted by each industry.

COUNCIL AND EXECUTIVE COMMITTEE.

Your committee has given serious consideration to the suggestion that following this conference an executive committee should be appointed to relate the efforts of the

various war service committees, keep them continuously informed on matters of common interest, and coordinate their work on national problems.

It is the conviction of your committee that it is absolutely essential to the stability of business in this country and the prompt and wise solution of our problems that the war service committees should continue their work in cooperation with Government agencies and now turn their attention to the new questions with which the country is faced. We therefore recommend that all present committees so represent their industries and that an executive committee be named with as little delay as possible.

At the meeting of the chairmen of the war service committees held in Washington, D. C., on December 12, 1917, the Chamber of Commerce of the United States was requested to undertake the organization of committees in all the industries not then represented.

By vote this conference also requested that the war service executive committee of the National Chamber should act as the executive committee of these committees of the industries.

At the meeting in December, 1917, it was suggested to the war service executive committee of the Chamber of Commerce of the United States that as soon as practicable a council be appointed representative of all the industries which would act as advisory to the war service executive committee.

It is believed that the time has now arrived when such a council should be formed and it is recommended that this council be composed of the chairmen of the war service committees.

The board of directors of the National Chamber has stated that, if it be the desire of this convention, the Chamber will be glad to reconstitute its war service executive committee and have it continue to serve in the same capacity in which it has acted during the war, directing attention particularly to the problems of reconstruction affecting all industries.

In this direction the Chamber would wish to make the cooperation of these committees on a national scale as effective as possible, and it will continue to publish such bulletins and reports as may be necessary for their benefit, and place at their service the facilities of its general headquarters in Washington and its branch offices.

It is the opinion of your committee that this conference should immediately take advantage of the willingness of the Chamber to undertake this responsibility, and it therefore presents the following resolutions:

Resolved, That this conference requests the Chamber of Commerce of the United States to appoint a war service executive committee of such number as may seem best to relate the efforts of all of the war service committees, and to aid in making effective the action of this conference and pledges its assistance to the National Chamber in securing the service on the committee of such leaders of industry as may be called to act.

Resolved, That the chairmen of the war service committees of the industries, or in their absence the vice-chairmen, shall constitute a council to be advisory to the war service executive committee, and to meet from time to time at the call of the executive committee or any twenty-five members of the council.

Resolved, That new war service committees representing industries not now organized may be recognized by the war service executive committee or by the council.

NATIONAL TRADE ASSOCIATION.

The experiences of the war have clearly demonstrated the value of national trade organizations and their service to the country as well as to industry.

This conference heartily approves the plan of organizing each industry in the country in a representative national trade association and expresses the belief that every

dealer, jobber, manufacturer, and producer of raw materials should be a member of the national organization in his trade and cordially support it in its work.

RESOLUTIONS OF NEW EXECUTIVE COMMITTEE.

The executive committee created by this conference shall give consideration and study to the resolutions which are referred to it by the clearance committee, and it shall have power to take such action upon such resolutions as it may consider proper.

RESOLUTIONS TO NATIONAL CHAMBER.

All resolutions which have come properly before the clearance committee, and upon which no action is otherwise recommended by the clearance committee, will be referred to the Chamber of Commerce of the United States for review.

BUSINESS PRESS.

Whereas through the enterprise of the Associated Business Papers (Inc.), in publishing the Reconstruction Conference Daily, the many separate activities of the conference have been reported to the delegates; and

Whereas this has brought about a degree of coordination and correlation which would otherwise have been difficult to attain; and

Whereas the Associated Business Papers (Inc.), and trade papers generally, contributed generously of their assistance in the preparations for the conference, and, through the publicity and advice freely given their readers, have played a highly important part in drawing together this record-breaking attendance of the leaders of American business; Therefore, be it

Resolved, That the reconstruction conference hereby tenders its thanks and appreciation of the aid so effectively given by the business press of the country.

SPEAKERS.

The convention has been particularly fortunate in the remarkable addresses which have stirred its members again and again and made its every session a memorable one to all who have attended them. A grateful acknowledgment of its appreciation is hereby extended to speakers who have honored it.

RECENT RECONSTRUCTION CONFERENCES.

During November and December a number of other reconstruction conferences were held to discuss the many problems affecting commerce, trade relations, public health, capital, labor, immigration, and numerous other phases of social and economic readjustment which the termination of the war has presented for immediate solution. It is the purpose to publish in the MONTHLY LABOR REVIEW, so far as possible, the reports of these conferences and to note the occurrence, and report the activities, of any other similar conferences that may be held to consider the great questions incident to the reconstruction period. The conferences referred to are as follows:

League for National Unity, organized by the National Civic Federation. New York City, December 3.

New York Academy of Political Science. Labor reconstruction conference. New York City, December 6, 7.

Reconstruction committee of 100, organized by the National Civic Federation. New York City, December 2.

National Municipal League. Conference to discuss American reconstruction problems. Rochester, N. Y., November 20-22.

American Public Health Association. Chicago, December 11-13.
Conference of governors. Annapolis, Md., December 16-18.

SENATE RESOLUTION FOR PROMOTION OF BETTER SOCIAL AND INDUSTRIAL CONDITIONS.

On December 11, 1918, by unanimous consent, the Senate adopted a resolution (S. Res. 382) directing its Committee on Education and Labor "to investigate and recommend to the Senate methods of promoting better social and industrial conditions in the country." The subjects set out in the resolution to be covered pertain to the whole reconstruction problem, and the desirability of looking into them at this time has been suggested by the consideration which the committee has been giving to the matter of vocational training for men who have been injured in industry, provision for which is made in the so-called Smith-Bankhead measure (S. 4922 and H. R. 12880).¹ The resolution adopted by the Senate is as follows:

Resolved, That the Committee on Education and Labor be, and is hereby, instructed to investigate and recommend to the Senate methods of promoting better social and industrial conditions in the country, particularly as to—

First. The establishment of a national tribunal to review and adjust difficulties between employers and workmen and to improve industrial conditions in the various industries and trades.

Second. The development of the United States Employment Service into a national labor exchange.

Third. The regularization of employment.

Fourth. The prevention of unemployment among workers, both men and women, by a program of necessary public works to be undertaken during periods of industrial depression.

Fifth. The promotion of better living conditions and a plan for centralized administrative control of the housing projects of the National Government during the period of the war.

Sixth. The extension of the United States sailors and soldiers' insurance to the civil population, so that the workmen can insure against sickness, accident, and death at the lowest possible rate.

Seventh. The feasibility of a national insurance law against nonemployment, old age, disability, sickness, and accident.

Eighth. The feasibility of some plan for a national minimum wage law.

Ninth. The question of extending the opportunity for vocational training and education to all people in the United States disabled by injury or sickness.

Tenth. Any other questions relating to a permanent improvement in the relations between employer and employee.

¹ The Senate Committee on Education and Labor reported S. 4922 on Dec. 26, 1918 (Rep. No. 630).

ORGANIZED LABOR AND RECONSTRUCTION.

The State federations of Ohio and California and the Central Federated Union of Greater New York and vicinity have recently formulated plans for the reconstruction period, which differ in detail but agree in calling for social and industrial changes of far-reaching significance. Those of Ohio and New York were presented before the armistice was signed, while the California report, though presented later, was drawn up by a committee appointed in October. All maintain that demobilization can, and should, be effected without producing a crisis of unemployment, and without obliging labor to give up any advantages it may have obtained during the war. The California plan urges that this can best be accomplished through the unions themselves:

We welcome and invite to our councils representatives of the returned soldiers and sailors as soon as they are in a position to take up matters of mutual interest. In no other manner than by such cooperation and by such recognition of their complete community of interest with us can we counteract obvious preparations to exploit the soldiers of uniform to the detriment of their brothers, the soldiers of industry. In no more effective manner than through the unions themselves can the release of the soldiers into civil life be accomplished without a disastrous depression of wages.

The New York platform calls upon the Government to release men only as they can be taken up into industry, commerce, or agriculture, retaining them in the service with full pay and sustenance until they are reasonably sure of employment. As measures for aiding in the reabsorption of discharged men, Secretary Lane's plan for reclaiming arid, stump, and swamp lands, and the industrial rehabilitation of wounded or disabled men are indorsed. The Ohio platform holds that there should be no unemployment, but if there is, unemployment benefits should be used to relieve it:

For the purpose of minimizing suffering, unemployment benefits equaling 50 per cent of the current wage rates in industries in which they were employed should be paid to those who were in the war service and to civilians who may become involuntarily idle during the reconstruction period.

Partly as a means of preventing unemployment during the demobilization period and partly as a forward step, long overdue, all three reports call for a greater socialization of national resources. The Ohio program points out the absurdity of the existence of idle land and idle labor "where the means of subsistence are inadequate to supply the proper needs of society." To do away with this paradox it declares that the Government should take immediate steps to democratize the land:

(1) By taxing for public purposes the speculative value of land, and (2) by the gradual reclamation of arid and swamp lands, such lands to remain public property forever, but to be leased for 10-year periods to citizens who engage in useful production at not to exceed 5 per cent rental per annum of such valuation, with the privilege of renewal.

It also calls for a graduated tax on incomes, ranging up to 90 per cent on incomes over \$20,000, demands the retention by the Government of the railway, telegraph, and telephone systems, Government ownership and management of the merchant marine, and the taking over of the coal mines and oil wells, pipe lines, and refineries, as well as all metallurgical mines and gas wells at their true physical valuation. Further it declares that "the streams of this country belong to the whole people," and calls upon the Government to take possession and develop them "for the purpose of furnishing light, heat and power to our people."

The California declaration contents itself with calling for a system of land values that "shall include a supertax on all idle uncultivated land, and land held for speculative purposes"; insists on public ownership of public utilities and all properties incidental to their operation; and demands the retention by the Federal Government of the railroads, express and telegraph businesses.

The New York platform is more cautious as to public ownership, but calls for Government control and regulation of public utilities and resources, including wholesale packing houses, markets, and cold-storage warehouses. It asks for the continuation of the Food Administration, and the extension of its authority to control and regulate both wholesale and retail prices of food. It advocates a progressive increase of taxes on all profits, unearned increments, incomes, and inheritances, with the exemption of incomes at or below the standard necessary for the maintenance of the average American family.

All three platforms ask for the establishment of the eight-hour day, with a further reduction of hours wherever a surplus of labor appears, or where conditions of work are such that even eight hours of labor tends to exhaust and devitalize those employed. The New York and Ohio plans call, in addition, for the establishment of a minimum wage for all workers, "sufficient to maintain themselves and their families in health and comfort and to enable them to educate their children." The New York plan, departing from the traditional attitude of organized labor in regard to adult men, asks that these improvements be secured through legislation, while the Ohio program contemplates gaining them through the establishment in each industry of a democratic board of adjustment composed of representatives of the workers and the employers in equal numbers. The New York platform calls also for the enactment of health insurance and old age pension laws, and for the extension of workingmen's compensation laws to cover industrial disease as well as accident.

The California plan lays much stress on the increasing cost of living, and urges that workers strive to meet this increase by establishing cooperative organizations for distributive purposes. This is more

practicable now than formerly because of the availability of war savings:

The vast investment of wage workers in Liberty bonds and war savings stamps has placed in their hands easily convertible securities which can be made the basis of credit in the formation of such cooperative enterprises.

The New York program contains also a demand for uniform Federal and State education laws which shall provide for the education of all children of school age and the vocational training of all apprentices and workers in industry, agriculture, and commerce. Among other provisions of such legislation should be the extension of the school age to 16 years, with part-time training for those between 16 and 18, and provision for dental, optical, medical, and surgical treatment for all school children under Federal and State supervision. All vocational and industrial training should be conducted under the direction and supervision of an advisory board composed of an equal number of employers and representatives of trade-unions connected with the trades in which training is given.

ORGANIZATION OF A LABOR PARTY.

Somewhat akin to the action of these three federations is that of the Chicago Federation, which, at its regular meeting, November 17, voted to organize a political party to be known as the Independent Labor Party. The purposes and aims of the new party, briefly summarized, are as follows:¹

- (1) The unqualified right of the workers to organize.
- (2) Democratic control of industry and commerce.
- (3) An eight-hour day, a 44-hour week, and minimum rates of pay.
- (4) Abolition of unemployment through stabilization of industry and the performance of Government work during periods of depression.
- (5) Complete equality of men and women in Government and industry.
- (6) Reduction of the cost of living, the development of cooperation, and the elimination of profiteering.
- (7) Democratization of education in public schools and universities.
- (8) Continuation of sailors' and soldiers' insurance and extension of same to all citizens.
- (9) Liquidation of the national debt by the application of all inheritances above \$100,000, supplemented by direct capital tax upon persons and corporations whose riches have been gained by profiteering, and the payment of current expenses of Government by income taxes, taxation of land values, and by profits from nationally owned utilities and resources.
- (10) Nationalization and development of natural resources.
- (11) Restoration of the full rights of free speech, free press, and free assemblage.
- (12) Labor representation in all departments of the Government.
- (13) Labor representation in peace conferences.
- (14) A league of workers to supplement the league of nations.

¹ The platform is given in full in the weekly news letter of the Illinois State Federation of Labor, for Nov. 23, 1918.

ACTION OF FREE FEDERATION OF LABORERS OF PORTO RICO REGARDING LABOR CONDITIONS IN THE ISLAND.¹

An extraordinary session of agricultural laborers and building trades employees under the auspices of the Free Federation of Laborers of Porto Rico, affiliated with the American Federation of Labor, was held at San Juan, October 12 and 13, 1918. The purpose of this session, it was stated, was to discuss the following subjects:

(1) Readjustment of wages of agricultural laborers employed on sugar-cane and tobacco plantations in order to meet the high cost of living.

(2) Hours and general conditions of farm work similar to those in other industries.

(3) Strict enforcement of the laws protecting labor.

(4) Fixing of the scale of wages of women and children.

(5) Hygiene in factories, shops, and country districts.

(6) Analysis and study of the means adopted by the National War Labor Board, with a view to making them applicable to Porto Rico.

(7) Revision of wages and labor conditions in the building trades, and a general study of present conditions.

(8) Presentation of petitions to the national authorities, requesting a full investigation of social and industrial conditions in the Island.

(9) General campaign for organization.

Resolutions were adopted declaring the following principles to be essential for permanent unity between employers and employees: A maximum day of eight hours; fixed scale of wages for ordinary hours of labor and overtime; hygienic and healthful conditions in factories, etc.; conciliation and arbitration; recognition of labor's right to organize; right to make collective agreements; union supervision of apprenticeship in the building trades; inclusion of all laborers under the workmen's compensation law; and promotion of safety legislation applicable to the building trades.

The convention approved the following as the terms of a proposed agreement for adjusting labor conditions in the cultivation, cutting, and grinding of sugar cane:

(1) Eight hours in each 24 shall constitute a day's work.

(2) Cane cutters and general laborers shall be paid 30 cents per hour, time and a half for overtime, and double time for night and holiday work. Work between 7 a. m. and 7 p. m. to be considered day work; that performed at any other time, night work.

(3) Working hours shall be from 7 to 11 a. m. and 12 m. to 4 p. m.

(4) Wages shall be paid weekly, on Saturday, beginning at 3 p. m., in United States money, at the work place, or the mill office,

¹ Convencion Extraordinaria de los Trabajadores Agricolas y Oficios Constructores de Puerto Rico, San Juan, 1918.

or the residence of the employing manager provided he does not live more than one kilometer from the place of work, and never in the company store or other place where the employees trade with the management. No employer, agent, manager, or superintendent shall be authorized to make deductions from wages in payment of an employee's debts, nor shall the employee be required to make any contribution from his wages (except in case of previous consent), or in order to secure work. In case an employer is unable to complete the payment of wages before 7 p. m. on Saturday, the week shall be understood to be from Saturday to Friday, inclusive. In case of the incapacity of an employee by reason of sickness, wages shall be payable on demand.

(5) The law for the protection of women and children requiring facilities for first aid in case of accident, and all safety laws, shall be strictly complied with.

(6) The right of laborers to organize shall be recognized, just as the right of employers to form and maintain their organizations is recognized. No employee shall be penalized for participation in any strike or for presenting any request or demand for better conditions for his fellow workmen, and if discharged for these causes he shall be immediately reinstated.

(7) Female workers and minors shall be paid \$1.25 for eight hours' work, provided that when they perform work equal to that performed by men their pay shall be equal. Minors include all persons not over 16 years of age.

(8) All relations between employers and employees should be mutually respectful and affable, and in the settlement of any dispute which may arise the employees shall name committees, which shall first place their grievances before the immediate representative of the employer, and in extreme cases before the employer. During the discussion of grievances the employees shall continue work until a reply is given. In case the employer's reply is unsatisfactory, the employees interested shall lay the matter before their union, which shall decide what further action shall be taken.

In order that industrial peace may be assured during the period of discussion, both the parties to the discussion may, in accordance with the practice advised by the National War Labor Board, name a committee of three members, one representing the employees, one the employers, and the third to be agreed upon by both parties, to which all matters may be submitted for final decision, if the means employed by the union are unavailing.

(9) When an employee suffers an injury, or accident, the employer shall not only furnish medical service and medicine, but shall con-

tinue during the period of incapacity to pay the injured person wages equal to the wages paid for the last week's work.

(10) This agreement shall be signed by competent representatives of both parties, shall become immediately effective, and shall remain in force during the fiscal year 1918-19.

Similar action was taken regarding an agreement to govern work in sugar mills, excepting that wages for skilled labor were fixed at 50 cents per hour. The work is to be divided into three shifts for each 24 hours, and no one shall be permitted to work two shifts, except in case of necessity owing to scarcity of laborers; provision is made for complete sanitary and hygienic regulations, for ice water for drinking purposes, and for the installation of safety appliances in dangerous places; all regulations shall be subscribed to by both parties; general laborers and helpers are to receive 30 cents per hour, with time and a half for overtime and double time for night and holiday work.

These agreements were to be submitted to the employers' organization not later than November 15, 1918. If collective action could not thus be obtained, they were to be presented to the local employers' associations separately, or to other interested parties. All the resources of mediation, conciliation, and arbitration or other peaceful means were to be exhausted in an effort to secure collective agreements.

If by December 31, 1918, no local or national action was taken it was understood that the executive council of the federation should notify each union of the fact in order that appropriate action might be taken.

Employees and unions which, without having consulted the proper committee, engage in any strike prejudicial to other unions may be penalized by being deprived of the federation's protection, advice, or aid, and may be declared outside of the federation and have their charters canceled.

BRITISH GOVERNMENT'S PLAN FOR DEMOBILIZATION AND RESETTLEMENT.¹

The execution of the British plan for the demobilization of the armies and for the return of soldiers and officers to civil life is a duty of the director of mobilization who acts directly under the Under Secretary of State. Demobilization is both a military and a civil problem, and because of its dual nature both the military and the civil authorities are concerned in its direction.

¹ This article is a summary of a memorandum submitted by Lieut. Col. R. C. Clothier, under date of Nov. 20, 1918.

MILITARY ASPECTS OF DEMOBILIZATION.

Demobilization by units was abandoned in the beginning. The war office saw that such a procedure would be not only unfair to the men themselves but disastrous to industry as well.

It would be manifestly unfair to men at the front if the men at home either in the military service or in war industries should have the first opportunity to secure work. Such a procedure would, moreover, produce an added problem of unemployment by flooding industry with men without regard to their fitness or to the ability of industry to reabsorb them.

While age, geographical location, length of time in the service, and marital status are factors of demobilization which will receive due consideration, the primary factor will be the individual's industrial classification. "The men needed first in industrial and civil reconstruction will be released first," and then only as rapidly as industry is prepared to use them to advantage.

CIVIL ASPECTS OF DEMOBILIZATION.

Civil demobilization includes the reorganization and reconstruction of industry for the reception of men thus released. And because of the radical changes in organization and practice required for the production of munitions, some industries must necessarily be completely reconstructed in order to return to a peace-time basis. This is especially true of the large factories erected to produce munitions of war.

The demobilization regulations issued by the director of mobilization divide this problem into four parts:

- (a) The transportation systems of the country.
- (b) The distribution of labor.
- (c) The necessary buildings, factories, and industries.
- (d) The agricultural production.

Since the principal factor in the restoration of practically all industries will be that of the provision of raw material, the supply and demand will receive special attention, and a readjustment of the supply of materials and their proper distribution will have to be made.

Bearing this in mind, provision should be made to release men for whose occupations material can be furnished at once, while the release of men whose occupations can not function immediately owing to a lack of materials should be prevented. "This consideration stresses the importance of demobilizing by industrial classification."

Great Britain has, therefore, decided to demobilize by trades and this procedure must be determined by the establishment of a trade priority list showing which trades should be demobilized first.

Each soldier's army book will give his address, industrial group, and information as to whether he is married or single. The number

of men in an industrial group will be determined as follows: "At the proper time (either before or after the actual signing of peace) an order will be issued to all unit commanders instructing that each unit commander shall classify his personnel according to each man's industrial group and his dispersal area (as shown in his army book). * * * Each unit commander having completed this form * * * will send it to his immediate superior officer who will render a consolidated form for all the units serving under him to the next higher formation where again a consolidated return will be prepared. Thus by stages a consolidated return of each expeditionary force and each command at home and abroad will be evolved and delivered to the war office."

The collecting of this information will probably take about three weeks, at the end of which time the minister of reconstruction will have determined which trades are to be regarded as high on the priority list and will advise the war office accordingly.

Based upon the information thus secured regarding the classification and number of men and the trade priority list "an allotment of numbers will then be issued to the expeditionary force and to the commands at home and abroad to the end that an equal number of men from overseas and from within the United Kingdom, of the proper industrial group, shall be returned to their work in civil life."

During the three weeks calculated for obtaining this information the war office will set up dispersal units which should handle 2,000 men in 24 hours. There will be 18 dispersal stations distributed throughout the United Kingdom and 30 dispersal units will be formed and assigned to the various stations in proportion to the number of men handled. Some stations handling more than 2,000 men in 24 hours will have additional units assigned to them.

In addition to setting up this machinery the war office will during these three weeks release (a) certain special individuals required in a civil capacity for work on demobilization, as trained pay and record clerks; overseas traders, certain schoolmasters, civil police, doctors, etc.; (b) "pivotal men, that is, the key men in various industries without whom the bulk of the men to be employed can not get to work effectively; planners, architects, organizers, buyers, etc." In making this selection of men for demobilization the officers may give preference to those who have been longest in the field and to those who are married.

When a man of certain industrial classification in any constituent unit (these units are now reduced to cadres—about one-third of war strength or less in order to facilitate demobilization) is released, he will be given a dispersal certificate. This certificate contains his name, destination, equipment, dispersal area, military unit, industrial group, trade, medical category, and other information.

Men in the field will be collected into camps which are affiliated with various sea and rail routes serving the dispersal areas in the United Kingdom, while soldiers in the units at home will be distributed throughout the kingdom from certain designated stations. The men in the collecting camps will be grouped into drafts of several hundred men each, each draft intended for only one dispersal area.

At the dispersal stations each man will deliver up his "equipment and will receive an unemployment donation policy, a railway warrant to his home, an allowance for the purchase of plain clothes, a cash payment of £2 [\$9.73] to be charged against his account, a service gratuity of £1 [\$4.87] per year of service, a war gratuity (not determined), and a protection certificate which he must be prepared to present to obtain from the post the money and postal orders to be sent him periodically thereafter for his pay and separation and family ration allowances, which are to be continued to him during the 28 days furlough allowed him after his dispersal."

* * * "The unemployment insurance policy is the same in nature as the regular national unemployment insurance policy." This sum will be given free to soldiers; "there will be no dues and no 'waiting weeks' as is customary in industrial insurance."

The demobilization of officers and of Queen Mary's Army Auxiliary Corps will proceed along similar lines, with the exception of certain details. Officers are not allowed the 28 days' furlough. In the selection and release of the women, their dispensability and domestic obligations will be given special attention.

CIVIL PLANS FOR RECONSTRUCTION.

To perfect plans for civil reconstruction and resettlement, the coordination of the railroads in this work will be secured; steps will be taken to secure sufficient supplies of raw materials well in advance (the minister of reconstruction is making a thorough study of this subject); and financial assistance will be made to manufacturers and other men whose businesses have been disrupted by the war to help them return as speedily as possible to a peace-time basis of production.

CIVIL PLANS FOR RESETTLEMENT.

At the time of demobilization every means of securing work for which they are qualified will be given officers and men. To effect industrial resettlement with the greatest possible satisfaction the services of several departments in addition to the war office will be necessary, as follows:

- (a) Ministry of labor (employment and workshop training).
- (b) Ministry of pensions (disabled men).
- (c) The board of education for England and the corresponding department for Scotland and Ireland (general training).

(d) The board of agriculture and fisheries for England and the corresponding departments for Ireland and Scotland (agricultural training).

The information on the army forms given to the unit commanders in selecting the soldier or officer for release will be sent to the ministry of labor. Under this ministry are two resettlement organizations as follows:

(a) The ex-officers' resettlement committee, which will function through the professional and business register of the ministry of labor. This is equivalent to an employment exchange for professional and business men, and includes representatives of the principal professional societies and men possessing general experience in business and commerce, representatives of the universities and of unofficial associations interested in the training and employment of former officers; it also includes representatives of the Government departments. It will have local agencies distributed throughout the United Kingdom.

(b) The labor resettlement committee, which will perform the same duties with reference to soldiers of artisan standing in civil life. It will function primarily through the employment exchanges of the ministry of labor, corresponding generally to the United States Employment Service. It also functions through local subcommittees.

The ministry of pensions will have charge of the training and employment of officers and men still unfit for civil life by reason of wounds or disease. Their return to industry will be effected through local committees which will closely cooperate with the ex-officers' resettlement committee and the labor resettlement committee of the ministry of labor.

FACTORS IN AMERICAN PROBLEM.¹

In a consideration of the application of this plan to our problem it is believed that America, too, must demobilize by trades if national unemployment and unrest are to be avoided; that owing to the dual nature of the problem (previously considered) the Army interests should be subordinated to civic interests; that men in the Army should be so dispersed as to provide skilled and unskilled labor for industrial absorption when needed.

From the standpoint of the Army, demobilization on this basis presents the following general program:

(a) *Creation of the military machinery for demobilization.*—This includes the preparation of the needed Army forms; the creation of cadre establishments for all units; the organization of dispersal units; the establishment of collecting camps in France, Italy, Germany, and Russia; the districting of the United States into dispersal areas; estimating and coordinating the transportation facilities available; and the use of the Army classification system in the original selection of officers and soldiers for dispersal.

(b) *Sea transportation.*—The chartering of ships and the securing of wharfage facilities of sufficient capacity so as not to impede the process of repatriation; the purchase of coal and supplies.

(c) *Land transportation.*—The organization of the railroads of the country under the United States Railroad Administration for this increased and specialized traffic.

¹ Cf. article on pp. 119 to 125 of this issue of the MONTHLY LABOR REVIEW.

(d) *Storage of equipment, etc.*—It will be necessary to provide accommodations, both at home and overseas, for the vast supplies of armaments, ammunition, equipment, etc., which will have been accumulated and which will have to be taken care of pending its ultimate disposition.

(e) *Disposition of material.*—These great stores will have to be disposed of in some effective manner, always supposing the recurrence of the war is reduced to an impossibility. As stated above, it is out of the question to maintain such large accumulations of equipment in peace times. It will naturally be the intention of the Government to dispose of them as profitably as possible in order to reduce in some measure at least the cost of the war to the taxpayers.

(f) *Dispersal of individuals.*—As suggested above, it will be necessary from industrial reasons to release the men from the Army, as they are needed in industrial life. A glance at the British system suggests the intricacy of this program.

The dispersal of men and their resettlement in industry will be more easily accomplished here than in Great Britain, because of the excellent qualification cards for officers and soldiers, "which record completely the personal, educational, and industrial information about the individual at the time he entered the service and which have been used so effectively in the intelligent placement of men in the Army." These cards will be as valuable in releasing men to meet the needs of industry as they have proved in selecting them for the Army.

No plan of demobilization according to industrial needs is proposed which will attempt to restore individual men to their jobs, but it is proposed that by the use of the Army qualification cards for both officers and men, those men whose occupational ability will be first needed by industry—as railroad men, construction foremen, etc.—will be released first. "The priority of occupations and trades should be determined, presumably, by some agency appointed by the President, such as the War Industries Board."

Accordingly the men selected in this manner would be forwarded to dispersal camps in different parts of the country and from them distributed to their own home towns. They would be expected to secure their own jobs. Those, however, deserving assistance in obtaining work "should have the privilege of applying to the local office of the United States Employment Service, which should be so organized as to know the personal needs of the principal employers in their districts and so equipped to classify and trade test (if skill is claimed) their soldier applicants. These local offices should, through effective organization, be able to deliver to employers men qualified by skill for their service, and consequently command their confidence and cooperation."

The soldiers in camp in the United States, because of their nearness to home and their recent classification, can be more easily released on their industrial basis than on any other.

While the same basis of demobilization applies to our soldiers in France, military considerations may necessitate keeping some of the

units at full strength. In such cases the units should be returned to the United States as units and afterwards demobilized industrially.

“With reference to the demobilization of the Army personnel and its reabsorption by industry, this recommendation visualizes three functional problems. The first is the determination of the priority of trades to be released. The second is the adopting of the Army personnel system to the selection of men for early release according to their general (not specific) industrial classifications. The third is the perfecting, by the Department of Labor, of the United States Employment Service to the end that each of its local agencies shall render even more valuable service to employer and applicant alike and command the confidence of both.”

FURTHER DETAILS OF THE BRITISH PLAN.

Further details of the British scheme, with particular reference to provision for unemployment and arrangements for financial assistance to those who desire to complete their interrupted training in various callings, together with the text of instructions that have been issued to all factories and firms engaged on work for the Ministry of Munitions relative to the release of workers, are included in an article published in the British Labor Gazette for November,¹ which is reproduced here in full:

The Government have created a civil department of demobilization and resettlement responsible to the ministry of labor under a controller general. At the request of the Prime Minister, Sir Stephenson Kent, K. C. B., has consented to become controller general. The department will deal with all questions affecting the reemployment and resettlement of the navy, army, and air force, and of civil war workers. The controller general will have at his disposal, in addition to the appointments department, the staff and machinery of the employment department of the ministry of labor, which includes the administration of the employment exchanges and unemployment insurance. The functions of the labor departments of the admiralty and ministry of munitions will be transferred to the ministry of labor as soon as is convenient, and the necessary staff will be attached to the new organization.

The minister of munitions has appointed a demobilization board under the chairmanship of Sir James Stevenson, which will work in the closest cooperation with the controller general's department. The primary function of the demobilization board will be to assist the transition from munitions to normal production with the least possible delay, so as to avoid as far as possible dislocation and unemployment. (A copy of the official notice to contractors, subcontractors, and workpeople engaged on work for the ministry of munitions is printed separately below.)

PROVISION FOR UNEMPLOYMENT.

The Government has decided to make provision for such unemployment as may occur during the coming months, and its scheme is set forth below. For the sake of simplicity the Government's policy with regard to out-of-work donation for ex-service men is included in the statement. For some time past the Government have had under consideration the necessity of introducing a universal contributory scheme of

¹ The Labour Gazette, London, November 1918, pp. 436-438.

unemployment insurance for a term of years to cover the whole period of resettlement. This measure, being of a far-reaching character and necessitating full consultation with the industries of the country, could not at the present stage be applied to the circumstances which must arise in the near future and with which the Government's noncontributory scheme set out below is intended to meet. Nevertheless it is the intention of the Government to press forward with such a measure and to introduce it as early as possible.

SCHEME OF OUT-OF-WORK DONATION FOR EX-SERVICE MEN AND CIVILIAN WORKERS.

Civil workers.—The scheme will be in operation for six months from a date to be appointed, during which the maximum period for which donation may be paid to any individual will be 13 weeks.

Soldiers, etc.—The soldier will be entitled to out-of-work donations during the 12 months following his demobilization for a maximum period not exceeding 26 weeks.

(NOTE.—The total period for which the scheme, so far as civil workers are concerned will apply, is six months from a given date. In the case of soldiers the donation will begin to run from the day he personally is demobilized, whenever that may be.)

Rates of benefit (ex-service men and civil workers):

Adults—24s. [\$5.84] per week for men.

20s. [\$4.87] per week for women.

6s. [\$1.46] for the first dependent child (under 15).

3s. [73 cents] for each succeeding dependent child.

Juveniles (over 15 and under 18 years of age)—

12s. [\$2.92] per week for boys.

10s. [\$2.43] per week for girls.

The donation will not be payable for the first three days of any continuous period of unemployment. The out-of-work donation payable to partially disabled men in receipt of pensions will be additional to their pensions, and no deductions will be made in respect of such pensions. In the case of juveniles, the donation will be payable on the fulfilment of the conditions generally attaching to the payment of unemployment benefit, except that in addition they will be required to attend a course of instruction approved by the president of the board of education or other central department concerned. Payment of contributions under the existing compulsory scheme of unemployment insurance will continue. As regards receipt of benefit under this scheme, insured workpeople will not be allowed to draw simultaneously both the benefit under this scheme and the free unemployment donation, i. e. in practice payment under the contributory scheme will be suspended except in cases where the insured workman has exhausted his free donation. Arrangements similar to those under section 105 of the National Insurance Act, 1911 (under which trade-unions may pay the State benefit of 7s. [\$1.70] to their members and subsequently recover it from the ministry of labor) will not be allowed in respect of free unemployment donation. Repayment to trade-unions under section 106 of the National Insurance Act, 1911, in respect of unemployment benefit which they pay out of their own funds, will be suspended during the operation of the free unemployment donation to civil workers.

DEMobilIZATION OF THE FORCES.

The Government has adopted as its fundamental principle that demobilization, subject to military needs, must be governed by industrial requirements and broad social considerations.

It is important in the first instance that those who are now serving with the colors, whose services will be needed to carry out the actual plan of demobilization, should be at their posts well in advance of the actual beginning of demobilization. These "demobilizers," as they are called, will therefore return first.

In the next place, it must be remembered that some of the industries of the country have been deprived of the services of men whose return will be essential before employment can be provided for a large number of returned soldiers. It would be folly to bring back into civil life a large body of workers unless the pivotal men were already in their places and the earlier links in the chain of production complete. Full inquiries have been made to ascertain who are the individuals upon whose speedy release the resumption of normal production depends. These pivotal men will be brought back at the earliest possible moment. The return of the "demobilizers" and pivotal men will secure the smooth working of the machinery of demobilization and the preparation of industry for the absorption of the returned soldiers.

As to the general body of soldiers, the general rule will be that those who have places waiting for them will return before those who have no definite prospects. It is known that a considerable proportion of the men in the army will be able to return to their former employers. Such men, known technically as "slip" men, whose jobs are definitely waiting for them on their return, will be demobilized in accordance with a scheme of priority. The ministry of labor is preparing a priority list of industrial groups, placing them in the order of their national importance from the point of view of the reestablishment on a peace basis of the essential industries of the country. It is obvious that though certain trades must necessarily take a high place on the priority list, the position of others must depend upon considerations which can not now be foreseen.

Whilst industrial considerations must be predominant in the scheme of demobilization, other considerations have not been overlooked. For example, within each group preference will be given to married men over single men, and a certain proportion of each draft will consist of men with a long period of service in a theater of active operations and of men who are time-expired soldiers enlisted on normal attestations before the war.

Soldiers will be required to fill up a form giving the particulars necessary for their reabsorption into industry. Each form will then be transmitted to the area in which the man to whom it refers normally resides. Where, according to the form, the man's employer has promised to keep his place open for him, the employment exchange will ascertain whether the offer will stand, and if so the tear-off slip at the bottom of the form will be returned to the man's commanding officer. This man then becomes a "slip" man. The same thing will happen where a job is found for a man though it had not been previously promised. Commanding officers will make up their drafts of men in accordance with the instructions they receive with regard to priority. Men who are abroad will be sorted out into parties for various concentration camps which will serve certain dispersal areas at home. From these collecting places the men will proceed direct to dispersal stations at home. At these dispersal stations they will only be retained for a few hours, and they will then proceed to their homes, which will be in the neighborhood of the dispersal station. They will receive a protection certificate, a railway warrant home, and a cash payment, together with an out-of-work donation policy. The soldiers will then be entitled to 28 days' furlough, during which time they will receive pay and ration allowance, and the separation allowance will at the same time be continued. At the expiration of the furlough, the men will be finally demobilized.

The general scheme sketched above is applicable to the army, the air force, and, with the necessary modifications, to the Royal navy.

The Munitions of War Act, 1915, schedule 2, paragraph 3, provides that: "In any readjustment of staff which may have to be effected after the war, priority of employment will be given to workmen in the owner's establishment at the beginning of the war who have been serving with the colors." A scheme has been prepared giving special facilities for ex-service men with regard to land settlement and occupation at home on small holdings, allotments, or cottages with gardens.

ARRANGEMENTS FOR FINANCIAL ASSISTANCE.

It is recognized that the further training or education of young ex-officers in various callings, or men not officers who have interrupted their training in those callings, is a matter in which the Government has responsibility; and the war cabinet has agreed to the principles of a scheme whereby, where circumstances require, assistance with respect to fees and maintenance can be given on the recommendation of the training committee, to enable men in those classes to complete their training. The details of the scheme proposed will be announced very shortly.

It is intended that the military service (civil liabilities) department with an advisory committee should be continued in existence after the termination of the war so that financial assistance subsequent to demobilization may be given in accordance with a scheme based on the existing regulations of this department. That is to say—

(a) Assistance may be granted to any officer or man who is unable, by reason of his undertaking military service, to meet his financial obligations after demobilization and is thereby exposed to serious hardship.

(b) The obligations in respect of which assistance may be granted should be those arising in respect of (i) Rent. (ii) Interest and installments payable in respect of loans, including mortgages. (iii) Installments payable under agreements for the purchase of business premises, a dwelling house, furniture and the like. (iv) Rates and taxes. (v) Insurance premiums. (vi) School fees.

One-man businesses.—It will be within the discretion of the department to make a grant, either in the form of a lump sum or by quarterly or other installments; and if in any particular case the department is of opinion that in lieu of assistance in respect of any of the specific obligations mentioned above, it is desirable that assistance should be given for the purpose of enabling applicants to purchase stock-in-trade or shop-fittings, a grant may be given for this purpose. This applies particularly to the difficulties experienced by the one-man businesses.

APPRENTICES.

It is proposed that State assistance shall be given in respect of apprentices whose apprenticeship has been interrupted by war service where, in the industry concerned, a scheme of training has been approved by the Minister of Labor.

No grant is to be payable under the scheme in respect of an apprentice unless he has reached the age at which he would normally have completed his apprenticeship, provided that in no case shall such age exceed 23 years in Scotland and 21 years elsewhere; and it will not be payable in respect of an apprentice who was in the last year of his apprenticeship when called up for service.

No scheme of training will be approved unless the unexpired period of apprenticeship is reduced by at least one-third.

The employer will pay in wages to the apprentice not less than seven-twelfths during the first 12 months, and not less than two-thirds during the second 12 months (if any) of the total of the current standard rate plus war bonus.

The sum payable by the State will be the difference between the weekly wage payable by the employer (as above) and three-fourths during the first 12 months, and five-sixths during the second 12 months (if any) of the total of the current standard rate plus war bonus. In no case will the grant be payable for a period exceeding two years.

Where in the opinion of the Minister of Labor it is desirable that an apprentice should receive whole-time training in a technical school, a maintenance grant not exceeding 27s. 6d. [\$6.69] per week may be paid for a maximum period of 40 weeks, in lieu of the State assistance laid down above.

The Ministry of Labor will be empowered to pay such fees as may be approved by the board of education or other Government department regulating fees, for apprentices attending technical schools under an approved scheme.

The minister of labor shall have power at any period during the course of training to discontinue, or vary, any such grants, fees or maintenance allowances, if in his opinion the training which is being given is not of a satisfactory nature. Any such action in connection with schemes involving attendance at a technical school, or involving training subject to inspection by an educational authority, shall also be approved by the Government department for education concerned.

ARRANGEMENTS FOR MUNITION WORKERS.

The following instructions have been issued to all factories and firms engaged on work for the Ministry of Munitions:

1. There should, so far as possible, be no immediate general discharge of munition workers.

2. All workers, however, who desire to withdraw from industry or to leave for any reason, and all workers who can be absorbed elsewhere, should be at once released.

3. Production on contracts for guns and gun ammunition, machine-guns, small arms and small-arms ammunitions; trench warfare mortars, bombs and stores, pyro-technic stores; aerial bombs; all accessories of the above stores; aircraft and aero-engines; and the manufacture of explosives, should be reduced in the following ways:

(a) All overtime should be immediately abolished.

(b) Systems of payment by results should be temporarily suspended, and the customary notice of the transfer from payment by results to time-work should be given.

(c) When a transfer to time-work has taken place, a reduction of the hourly week should, wherever possible, be introduced. The reduction of hours will also apply to men already on time-work, and in their case the customary procedure as to reduction of hours should be followed.

(d) Whenever reduced hours are worked on a time-work basis, the number of hours worked must not be less than one-half of the hours in the present normal working week of the establishment. If in any case the earnings of the workpeople, for the full weekly number of hours on the short-time system, fall below the following amounts:

	Per week.
Men of 18 years and over.....	30s. [\$7.30]
Boys under 18 years.....	15s. [\$3.65]
Women of 18 years and over.....	25s. [\$6.08]
Girls under 18 years.....	12s. 6d. [\$3.04]

their earnings will be made up to these sums by the employer, who will be reimbursed by the State. Where time is lost, the amounts payable will be sums proportionate to the number of hours actually worked.

4. The adoption of half-time may cause unavoidable discharges, but every effort should be made to minimize unemployment, utilizing employees for a short period on laboring and clearing-up work. In allotting this work, preference should be given to workpeople who are ordinarily dependent upon industrial employment.

5. All persons discharged, or claiming release, can obtain free railway warrants for journeys from the place of employment to their homes or to places where they have found new employment. The warrants will be issued through the employment exchanges. In cases where large numbers are required, warrants can be obtained by the employers from the employment exchanges for issue at the works.

6. Directions will be given at an early date with regard to war munitions volunteers, army reserve munition workers, and other special classes of workers.

7. The foregoing instructions are issued for the guidance of contractors until individual firms receive further and particular instructions from the Ministry of Munitions. The loyal and cordial cooperation of all employers is confidently invited.

UNEMPLOYMENT DONATION.

To provide for the abnormal period that must immediately follow on the cessation of hostilities, the Government have adopted as a temporary measure the following general scheme of noncontributory unemployment donation, which has been laid before them by the Minister of Reconstruction in agreement with the minister of labor.

The broad conditions of the scheme are that this unemployment donation shall remain in force for a period of six months from a date to be announced shortly by the Government, and that the benefit can be drawn for a maximum of 13 weeks during that period in cases where unemployment can not be avoided. The other conditions and necessary safeguards will be explained by the Minister of Reconstruction in his statement to Parliament, and he will then also deal fully with the scheme that will be applicable to the demobilized members of His Majesty's forces.

Under this temporary noncontributory scheme which will remain in force pending the introduction of a general contributory scheme, demobilized civil war workers will receive benefits on the following scale:

(a) To unemployed men over the age of 18 years, 24s. [\$5.84] a week. To unemployed women over that age, 20s. [\$4.87] a week.

(b) There will be an additional allowance in respect of the first dependent child under 15 years of age, 6s. [\$1.46] per week, and 3s. [73 cents] for each additional dependent child under that age.

(c) There is a further provision for unemployed juveniles between the ages of 15 and 18 of 12s. [\$2.92] per week for boys and 10s. [\$2.43] for girls, conditional on their attending a course of instruction approved by the board of education, or other central department concerned.

It is necessary that industry should be rapidly transformed to peace conditions in order to provide permanent and reproductive employment for the civil workers and for the fighting men returning from the war. The proposals outlined above are solely intended to bridge over the inevitable period of dislocation. It must be emphasized that the noncontributory scheme is a purely emergency measure. While it is in operation the existing compulsory unemployment insurance scheme will remain in suspense so far as benefits are concerned. Contributions will, however, still be payable in order to build up a reserve of benefits for contributors when the temporary scheme comes to an end. Thus the special interests of contributors are fully safeguarded; in the meantime the Government are pressing forward with their scheme for general contributory insurance, which will be based on permanent considerations, and must not be prejudiced by the noncontributory scheme here announced.

In all cases where discharges of munition workers are in contemplation, it is necessary that the management of firms should work in close cooperation with the local employment exchanges, in order to facilitate the return of the munition workers to their homes and their reabsorption in industry.

It is, therefore, absolutely essential that the employment exchanges should be notified at least a fortnight in advance of the numbers of workers to be discharged, and that, as soon as possible thereafter, they should be supplied with full information as to the individuals affected. Officers of employment exchanges, and dilution and investigation officers of the Ministry of Munitions have been instructed to advise firms as to the order of discharge, etc., and to cooperate with them in the endeavor to mitigate hardship.

NATIONAL ALLIANCE OF EMPLOYERS AND EMPLOYED (GREAT BRITAIN).

The National Alliance of Employers and Employed is a nonsectarian, nonpolitical organization, without industrial bias, having two avowed objects. These are to make adequate provision beforehand to secure the reinstatement on demobilization of sailors and soldiers and of the vast body of workers in war industries, and, as far as possible, to prevent industrial disputes arising in the future. It believes that the successful management of the reinstatement problem depends upon its being conducted by representatives of employers and employed upon a basis of equal responsibility and equal administrative authority, with Government cooperation, but without Government control; and that the same principle should be applied to the reorganization of trade and industry after the war.

The inaugural meeting of the Alliance was held in London, December 7, 1916, when 40 representatives of industry and trade-unionism, under the leadership of the Hon. Frederick Huth Jackson, as chairman, gathered to discuss the difficulties of the demobilization problem and methods of meeting them.

The scheme agreed upon was embodied in a set of resolutions which emphasized the necessity of the cordial cooperation of capital and labor in dealing with the reinstatement of the civil and military forces, the general distribution of labor after the war, and the question of unemployment. It provided that powers should be obtained from Parliament to set up a central statutory board to deal with these problems, and stipulated "that not less than two-thirds of the members of this central statutory board should be representatives of employers and employed in equal numbers, such members being appointed by the crown from associations of employers and from trade-unions of the United Kingdom respectively, the remaining members of the board to include representatives of the Government departments." It provided also that local boards should be established, where necessary, to assist the central board; that trade-unions should place their own men, if it were deemed for the national interest to delegate to them this responsibility; and that the expenses of both central and local boards should be borne by Parliament.

The inaugural meeting was followed by other meetings at Birmingham, Manchester, Cardiff, Swansea, Liverpool, New Castle, Sheffield, and other great centers, in which the views of the Alliance were indorsed and local committees were formed. In March, 1918, 12 important trade-unions and over 90 leading employers of labor officially affiliated with this movement.

Early in its history the Alliance drafted a provisional constitution¹ embodying the principles of equal representation set forth in the resolution adopted at its organization. Included in the provisions also are the objects of the Alliance, qualifications for membership, method of raising funds, and a detailed outline of its administrative machinery.

The program of the Alliance, drawn up by an equal number of employers and employed and approved by the executive committee, covers a wide range of subjects having a community of interest for labor and capital. It favors not only a living wage, but such remuneration as will be an incentive to a workman to exert his best efforts on behalf of the industry in which he is employed. Hours of labor should be so regulated as to insure opportunity for proper physical and mental recreation. Women's pay should be equal with men's, if work, skill, and output are equal, and women should be represented on joint committees where their interests are concerned.

The Alliance also advocates improved working conditions, satisfactory housing accommodations, maximum output and wages commensurate with output, adherence to trade agreements, and employment during times of slack trade. Workers should be given opportunity to secure a technical and practical knowledge of the industry in which they are employed, should be encouraged to take an interest in the success and efficiency of their work, and should be protected in their inventions. Moreover, realizing the dependence of national progress upon education the Alliance believes that a liberal education should be afforded every child, and that the joint committees should give attention to the all-round development of children.

The attitude of the Alliance toward the Whitley councils has been the subject of unfavorable comment. The Alliance denies that it is opposed to these councils. On the contrary, it holds that such a method for settling industrial disputes is a valuable contribution to the solution of the problem of industrial unrest. It contends, however, that the joint standing industrial councils do not go far enough. In support of this contention the argument is presented that while the Whitley councils provide a machinery for the organization of each industry, which is a necessary part of any adequate reconstruction program, it is equally essential that means should be provided for the consideration of questions of a national character affecting industry generally and tending to raise the standards of living.

The aversion of the Alliance to Government interference is again apparent in its opposition to the attachment of a representative of the Ministry of Labor to these committees in an advisory or consultative capacity. "The National Alliance holds that Whitley com-

¹ For a complete text of the constitution with proposed amendments, see *Industrial Unity* (organ of the National Alliance of Employers and Employed), August, 1918, vol. 1, pp. 30, 31.

mittees should be voluntary associations of trade-union representatives and employers. * * * The official on the committee is an utterly unnecessary addition."¹

After a consideration of the prevalent feeling of industrial unrest arising from the war, and in view of the uncertainty regarding demobilization plans, the Alliance has urged the calling of a "conference of employers and employed representing this association and other associations with similar aims, representatives of employers' associations and trade-unions as such, and representatives of the Government departments concerned." To direct the deliberations of such a conference it has outlined a scheme for industrial reorganization on lines along which it believes joint action might be taken, as follows:²

(1) The constitution of a central industrial board consisting of representatives of employers' associations and trade-unions in equal numbers, and of the Government departments concerned. On this board all the staple industries should be represented. It should be the function of the board to deal with the wider national aspects of industrial readjustment and development—such as demobilization, the absorption of displaced female labor, national minimum wage, housing, general and technical education, general questions of apprenticeship, and welfare work. This board will not concern itself with questions of wages or conditions affecting a particular industry. It would be an autonomous body controlling its own proceedings and endeavoring to secure agreement on questions affecting the general conditions of industry. In deciding the representation of the various industries, the classifications compiled by the Labor Ministry, the Trades-Union Congress, and the Federation of British Industries might serve as useful guides.

(2) Area boards modeled on similar lines should be set up to cover districts, the boundaries of which should be settled by the central industrial board. The membership of these boards should comprise equal numbers of employers and employed, with representation of the local authorities. It should be the duty of these area boards to consider and make recommendations on questions affecting the general conditions in the areas they represent, and also on any matters referred to them by the central industrial board.

(3) Now there comes the question of the national and local organization of separate industries. For this purpose we think the scheme recommended by the Whitley committee might be adopted as a basis. Thus national and district industrial councils would be set up for each industry, and on these employers and trade-unions in the industries would be equally represented. The national industrial councils could deal directly with all questions relating to wages and conditions affecting their particular industries as a whole. They could also make recommendations on any matters referred to them by the central industrial board. Of the members of each national industrial council one or more of the representatives of the employers and employed should be members of the central industrial board.

(4) The district councils could deal with questions of local importance affecting their particular industries. They would try to prevent the outbreak of disputes, and would endeavor to settle any dispute which might arise in their district and which had a purely local bearing. Each district council would be represented by one or more of its employers and employed on the area board with which it was concerned.

(5) The committee on production should be abolished and a wages appeal tribunal

¹ Industrial Unity, September, 1918, vol. 1, p. 1.

² Idem, November, 1918, vol. 1, p. 55.

might be set up on the following lines: The central industrial board should appoint one panel of employers and one panel of trade-union representatives, and these two panels, acting in conjunction, should appoint a third panel of independent chairmen. From these three panels the national industrial council representing the industry with which the dispute was concerned would, when the services of a tribunal were necessary, appoint that tribunal, which should consist of one employers' representative, one trade-union representative, and the independent chairman. The services of the wages appeal tribunal would be called in on matters of wage adjustment only when the national council concerned had failed to reach agreement, and not (as is now the case with the committee on production) as a court of arbitration on almost any and every matter, thus causing delay and increased irritation. In the event of one or more points being agreed upon by the national council while there was non-agreement on others, only the points actually remaining in dispute to be referred to the wages appeal tribunal.

NEW PROGRAM OF THE GERMAN SOCIAL DEMOCRATIC PARTY.¹

The national convention of the Social Democratic Party at Wurzburg has charged the executive committee of the party with the appointment of a commission which will prepare and submit to the party officers a draft of a working program of the German Social Democratic Party, based on the political and economic conditions created by the war.

The executive committee accepted this charge, the commission was duly appointed, and the program prepared by it was published. The commission consisted of the comrades Auer (Munich), Cunow (Berlin), Keil (Stuttgart), Konig (Dortmund), Landsberg (Magdeburg), Lobe (Breslau), Paepflow (Hamburg), and Wissell (Berlin). The text of the program is as follows:

The world war has become a powerful revolutionary factor in the political and economic life of Germany. The traditional conditions of production and commerce and the class system of the German nation have experienced a deep-going revolution. As a reaction of the war further changes will take place after the conclusion of peace. We still are in the midst of the torrential current of development. This change and shifting of the living conditions of our nation requires the greatest possible safeguarding of its political and economic progress. It is conditioned on a transformation of State institutions taken over from the time preceding the war and creates a number of difficult problems for the German social democracy. The national economic system which has been adapted to war requirements must systematically be led back into peace conditions without any lasting detrimental disturbances of industrial life, and measures of organization required therefore must be taken. The economic values that have been destroyed by the war must be rebuilt and the remaining financial burdens be so distributed that without further hindering economic development they shall fall upon those who are best enabled to bear them. The weakened health and working efficiency of the nation must be strengthened through a far-sighted social policy and political reforms be effected which will assure to the German people decisive influence on the Government and on the transition from the old autocratic State to a State administered according to social-democratic principles.

¹ Translation in full of Einneues Aktionsprogramm der deutschen Sozialdemokratie Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands. Vol. 28, No. 25. Berlin, June 22, 1918. pp 231 ff.

The German Social Democratic Party can and must not let itself be driven by coming events and must not leave the work of reconstruction to the State authorities whose power has grown through social development. Conscious of its aims it must through cooperation in this task try to direct the reconstruction of the political and economic life of the German nation into roads which lead to socialism.

In the performance of these tasks the Social Democratic Party has resolved to adopt the following program of action, which has the unanimous approval of the Wurzburg party convention. This program is not intended to abrogate the Erfurt Party program, but to supplement it.

I. POLITICAL DEMANDS.

The experiences of the war have produced new proofs for the need of democratization of the State, i. e., of government by the people. In order to bring about government by the people it is required that the people obtain decisive influence on the Reichstag and the parliamentary representations in the individual States and communes, and that these in turn must obtain influence on the governmental power.

The German Social Democratic Party therefore demands:

Universal equal, direct, and secret franchise for all persons over 20 years of age, without distinction of sex, for the election of all parliamentary bodies in the empire, the individual States and communes; introduction of proportionate representation.

The appointment and dismissal of the imperial chancellor, the secretaries of State, and the ministers shall require the approval of the parliamentary representatives of the people, and the former shall be fully responsible to the parliamentary bodies for their official acts.

Authority to declare war or conclude peace and to conclude treaties with foreign powers shall be vested in the Reichstag.

Democratization of the standing army; reduction of the period of enlistment.

Abolition of secret diplomacy.

Creation of organizations dealing with international law (international demobilization treaties, courts of arbitration, etc.).

Full freedom of coalition and of holding meetings; abrogation of all exceptional laws.

Full autonomous administration for communes, districts, and provinces.

Reorganization of the educational system with the aim of doing away with the educational monopoly of the ruling classes.

II. DEMANDS FOR THE TRANSITION TO A PEACE RÉGIME.

In order to prevent serious economic crises there must be a systematic transition from the present economic war régime to an economic peace régime. The rationing of foodstuffs and the fixing of maximum prices must continue temporarily after the conclusion of peace so far as appears necessary in order to supply the poorer classes of the population with the requisite foodstuffs. The organization under Government management and supervision of the import of foodstuffs and of the import and distribution of raw materials is also necessary, while the existing depreciated condition of German exchange in foreign countries must be remedied by suitable measures in the domain of commercial policy and of finance.

Moreover, it will be necessary in order to import foodstuffs and raw materials as far as possible without delay, that the whole of the German shipping, including that on inland waterways, shall be placed under the control of the Government, which must be given a certain determinative right over the freight service, routes, and cargo space of the mercantile marine.

III. SAFEGUARDING OF THE LABOR MARKET AFTER THE WAR.

In order to avoid a sudden flooding of the labor market, depressed wages, and unemployment after the war, the State and communes must see to it that workers and

salaried employees who are discharged from military service are placed as far as possible in industrial and mercantile establishments of the occupational group to which they belong, and that for this purpose the employment exchanges are systematically organized. Should the establishments in any branch of industry, owing to the shortage of raw materials or for technical or other reasons, not be in a position to resume full operation, the workers or employees must not on that account be retained in military service. The pay and allowances granted to members of the army and their families must be continued for at least one month after their discharge. Sufficient employment must be provided by having recourse to useful public works for the State and communes; should these measures fail to provide within one month the unemployed with work the performance of which may be expected of them with regard to their particular vocations they must be given suitable unemployment relief from imperial funds.

IV. PARTICIPATION OF WORKMEN IN THE ORGANIZATION OF TRANSITIONAL MEASURES.

Since the organization of transition régime is not the special affair of the employers or of the State administration, but of all the classes of the population interested in the reconstruction of the national economic system, the German working classes must be given suitable representation in the imperial economic office (*Reichswirtschaftsamt*), in the labor offices and employment exchanges not only in questions affecting workmen but in the whole reshaping of economic concerns by way of reorganization.

Moreover, the German working classes must be accorded, by the creation of chambers of labor, the same representation of their interests and the same official powers as those possessed by commerce, industry, and agriculture in their chambers.

V. MEASURES AGAINST ECONOMIC MONOPOLIES.

Since in industry, commerce, and especially banking, the concentrations, amalgamations, and tendencies toward the formations of cartels [trusts] which have made their appearance during the war time will presumably be extended in peace time and lead to increase in economic monopolies, the German Social Democratic Party demands that private monopolies, so far as they have been created by economic development, should be taken over by the State under conditions which subject the entire conduct of their business to the control of parliamentary committees, secure to the workmen therein employed the rights accorded them by the industrial code and social legislation and guarantee the workmen suitable influence in labor conditions. Moreover, in order to control organizations of a cartel-like character, a cartel office affiliated to the imperial economic office must be established, empowered to examine the business books of the cartel associations and to combat injurious forcing up of prices. Employers as well as workmen are to be secured representation on the advisory council or the expert committee of the cartel office.

Imperial control of the banking system must be extended, and by the development of the imperial bank (*Reichsbank*), this institution must obtain a larger influence on private banks.

VI. COMMERCIAL POLICY.

It is necessary for the reconstruction of the country's economic system that after the war Germany's former commercial relations with foreign countries should be restored and German industry be afforded the possibility of extending its markets abroad. Accordingly, in the peace treaties agreements must be incorporated preventing the continuance of the existing economic war. Moreover, steps must be taken at once for concluding new commercial agreements which will do away with the system existing hitherto of protecting the German home market by high duties on foodstuffs.

VII. TAXATION AND FINANCIAL REFORM.

The war will leave Germany heavy financial burdens. To distribute these burdens in such a manner that economic development after the war may be as unimpeded as possible and that that part of the population which has derived advantages from the war should be first called upon to pay the required taxes is the most important task of a taxation policy intended to protect the broad masses of population. Among the first requisites of an unimpeded economic development must be the husbanding and strengthening of the human labor forces as the most valuable part of the national wealth.

Accordingly, the following measures must be demanded:

The refund of a considerable portion of the war debts by a very drastic levy on fortunes that have increased during the war.

The levy of a general contribution for the refunding of the national debt graduated in accordance with capacity to pay.

The regulation by imperial legislation and the progressive increase of income and property taxes in accordance with social standpoints and with a policy having in view the increase of the population.

The extension of the inheritance taxes by including bequests to children and husband or wife; levy of a share payable to the imperial treasury on estates left by childless persons or persons with a small number of children; introduction of a law making the State the sole heir when no near relations entitled to inheritance are in existence.

Increase of the rates of taxation which must be graduated not only in accordance with the degree of kinship and the amount of the inheritance, but also with the total fortune of the heir.

Abrogation of all taxes on the consumption of necessary foodstuffs.

All monopolistic branches of industry and the insurance system are to be taken over by the public administration.

VIII. SOCIOPOLITICAL DEMANDS.

In order to improve the state of health of the German nation, which has been seriously injured during the war, and with a view of protecting the human labor forces and rising generation the Social Democratic Party makes the following demands:

A basic eight-hour working day.

Sociopolitical legislation must be developed and made uniform.

Prohibition on principle of night work and clear definition of exceptions from this prohibition.

Women must be given complete protection before and after confinement.

Prohibition of the industrial employment of children under 15 years of age.

Protection of juvenile workers and extension of welfare schemes for them.

Regulations of housing work through an imperial law.

All workmen must be conceded a distinct right to combine. The labor laws must be developed and made uniform.

Development and uniform regulation for the whole Empire of the arbitration system, employment exchanges, and unemployment relief.

A special imperial office for the social policy must be created for the enforcement and application of sociopolitical legislation on uniform lines.

The welfare of the war-disabled and ex-soldiers whose economic situation has been damaged by the war, and of dependents of the fallen, demands special relief measures. Those soldiers who have been partially disabled in the war must be assured useful permanent employment by the employers by way of legislation and their exploitation in labor processes be prevented. Totally disabled soldiers must be enabled to recover a firm economic position. Accordingly the whole matter of relief of the war-disabled and the rearrangement of the conditions governing pension claims must be regulated

by the imperial legislation based on sociopolitical standpoints, while the legal procedure with respect to pension claims must be patterned after that of the workmen's insurance system.

IX. MUNICIPAL POLICY.

While still adhering to the resolutions adopted at the party convention at Bremen (1904) the Social Democratic Party considers that for the period of transition from a war to a peace régime the following tasks in the domain of municipal policy are especially urgent:

Finance and taxation: All monopolistic establishments affecting the communes to pass into their possession. The retail business of industries which have become or are to become monopolies to be transferred to the communes. Trading monopolies in building land and in all indispensable foodstuffs to be introduced.

Legislation is to be influenced in the direction of development of autonomy of the communes with respect to the right of taxation so as to enable them to fulfill their tasks without too heavy burdening of the poorer classes of the population.

Care of the poor and orphans: Development of preventive poor relief. Creation of special relief arrangements for disabled soldiers with elimination of the principles governing poor relief and administered separately from poor relief. The rates of relief to be adapted to the economic conditions of the persons requiring assistance. Extension of the general guardianship system. Special relief for war orphans.

Hygiene: Provision of the population with nourishing food at reasonable prices. Continuous supervision of the public health, especially that of infants, children still exempt from school attendance, and school children. Treatment of children threatened by illness or actually ill by physicians in the public service. In case of abolition of the imperial maternity grants, introduction of assistance by the communes to the same extent at least as that of the imperial grants. Care of expectant and nursing mothers corresponding to the advancement of medical science.

Educational system: The principle of free education and free school books and other school materials to be carried out in its entirety.

Gifted children to be granted possibility of higher education.

DEMOBILIZATION IN GERMANY.

[Reprinted from *The Labor Gazette* of British Ministry of Labor, November, 1918, p. 438.]

According to the *Vossische Zeitung* of 27th October, the under secretary of State announced at the Reichstag committee for trade and industry that a commission for the demobilization of wage workers had been appointed, consisting of representatives of the imperial authorities, the Federal Government, industry, trade, agriculture, the salaried classes, and the labor organizations. This commission had appointed a committee of nine members who in consultation with the military authorities, the communes, and the most important trades were to make the requisite preparations as speedily as possible. The basis of the scheme had been prepared long since by the military authorities and the other departments concerned. An attempt was being made to simplify and abridge the process of demobilization. Munition workers were to be continued in employment, as far as this is possible. Plans had been prepared for a

system of unemployment relief—both for wage workers and salaried employees. Orders for public works which had been suspended would be distributed immediately, and new works started. Heads of firms, foremen, agriculturists, miners, transport workers, and officials of all kinds would be the first to receive their discharge; and measures would be taken to see that farmers, factory managers, and employers sent in their requisitions for labor and had their demands satisfied as early as possible.

A later issue of the same newspaper, dated 4th November, contains the following passage:

Now that as a result of the political events of the past few weeks the question of demobilization has become an actuality, the authorities concerned are taking the matter energetically in hand. The plans drawn up by the military authorities, which were based on the supposition of a favorable peace, are no longer of any use. The imperial department of economics has therefore undertaken to draw up new plans. The chairman of the demobilization section is Dr. August Muller, who will collaborate with the imperial labor department in carrying out the arrangements for demobilization. In the imperial economic department representatives of the trade-unions will discuss the general scheme for demobilization with the already existing committee for demobilization, which also contains representatives of the workpeople.

The main principle of demobilization, according to Vorwärts, will be that: "Every wageworker and official shall return to the situation which he had in 1914." This general principle shall also apply to the demobilization of the home army, several hundred thousand of whom will be left without employment by the closing down of concerns which are working solely on war contracts. Of course, the principle—"Back to your old situation"—will not be rigidly applied, but due care will be taken to avoid unnecessary changes and personal inconvenience.

No foreign workman shall be allowed to deprive a German of work and food. Facilities will be given to Polish, Belgian, and Dutch workmen to return to their homes. Prisoners of war will be withdrawn from the factories, etc. Agriculture, whose representatives have also expressed their concurrence in the above-mentioned regulations, will, so far as is possible, give employment to all laborers born on the land, and to all who have a knowledge of agricultural operations. * * *

The reinstatement of the workers in their old employment will doubtless be seriously interfered with by the fact that many concerns have been closed down. Labor exchanges, unemployment benefit, and public relief works will help to solve any difficulties arising in this way.

There will be no great difficulty in establishing public relief works of permanent economic value. There is no lack of opportunities for work. An enormous amount of repairing work is urgently required. But it is very questionable if contracts for the requisite installation work will be distributed so long as prices remain at their present height. A dangerous vacuum may arise owing to want of coal and raw material, and it will be the duty of the imperial authorities to make the necessary provision.

Deliberations are still in progress regarding these questions, and the eliminations of profiteering from public contracts.

Soldiers will be discharged according to the economic value of the trade to which they belong. At the same time special facilities will be given to employers for obtaining the release of particular men, and it seems probable that they will be controlled by trade-union secretaries in the exercise of these facilities.

The organization for demobilization will be devoid of all bureaucratic formality. It will be guided by the advice of the existing industrial associations, and will depend on the energy, discretion, and sense of responsibility of the officers of these associations, who will be intrusted with full powers to make all the necessary arrangements without loss of time. The imperial economic department is at the head of this organization, and the work will be divided up among local committees, who will also have extensive powers.

Industry as a whole will have to bear part of the social burdens of demobilization. It is possible that the periods for terminating agreements will be extended, or regulations will be made regarding the rates of wages and the hours of labor.

PROVISION FOR THE DISABLED, AND VOCATIONAL EDUCATION.

WORK OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.¹

The Federal Board for Vocational Education, appointed under the Smith-Hughes law,² held its first meeting on July 17, 1917. The director of the board, Mr. C. A. Prosser, was appointed a month later and the first half of the fiscal year was largely given up to organization of the Washington staff and the regional offices, and "to the development and approval of State plans for the institution of vocational courses in the public schools under the joint patronage of the States and the Federal Government." In part of the States the adjustment to the requirements of the Federal law is still in progress and in all the States fuller working out of the law is expected as a result of the first year's experience.

There are 1,741 schools reporting vocational courses established in the first year of the board's existence, which does not mean, however, an equal number of communities, since in some instances there is more than one school reported in a community. This is also true of the teacher-training courses since many of the institutions covered two or in some cases the three courses of instruction offered. There were 40 institutions giving training for teaching vocational agriculture; 45, trade or industrial subjects; and 60, home economics. Schools were reported from every State. The geographical distribution of the various types of schools, the number of teachers employed in vocational courses, the number of pupils enrolled, and the number of schools applying for aid are given in the following table:

STATISTICS OF VOCATIONAL SCHOOLS FOR THE YEAR ENDING JUNE 30, 1918.

Type of school.	United States.	Region.				
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.
Number of schools reporting vocational courses.						
Total.....	1,741	794	285	423	92	147
Agricultural school.....	609	166	200	159	45	39
Trade or industrial:						
All-day school.....	168	71	17	33	6	41
Evening school.....	300	104	24	125	12	35
Home economics:						
All-day school.....	200	102	24	34	25	15
Evening school.....	123	76	10	35	1	1
Part-time school.....	341	275	10	37	3	16

¹ Summarized from articles in The Vocational Summary for October and November, 1918, published by the Federal Board for Vocational Education, and from Bulletins 17 to 22, inclusive, and 24, issued by the board.

² For summary of the provisions of this law, see MONTHLY REVIEW for April, 1917 (pp. 581-583).

STATISTICS OF VOCATIONAL SCHOOLS FOR THE YEAR ENDING JUNE 30, 1918—Con.

Type of school.	United States.	Region.				
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.
Number of teachers of vocational courses.						
Total.....	5,257	3,035	473	1,311	161	277
Agricultural school:						
Employed full year.....	686	216	185	208	38	39
Employed less than full year.....	209	89	55	12	24	29
Trade or industrial:						
All-day school.....	1,052	738	79	138	12	85
Evening school.....	1,397	662	71	530	62	72
Home economics:						
All-day school.....	398	252	30	68	18	30
Evening school.....	688	479	30	171	3	5
Part-time school.....	827	599	23	184	4	17
Number of pupils enrolled in vocational courses.						
Total.....	1 164,186	105,016	9,476	37,145	1 4,669	7,880
Agricultural school.....	15,187	3,649	4,648	4,681	921	1,288
Trade or industrial:						
All-day school.....	18,528	13,039	664	3,582	62	1,181
Evening school.....	² 46,288	³ 23,499	1,694	14,931	2,295	3,869
Home economics:						
All-day school.....	8,333	4,186	890	1,801	753	703
Evening school.....	22,360	15,270	1,133	5,752	55	150
Part-time school.....	53,005	45,373	447	6,398	98	689
Number of schools applying for aid.						
All schools:						
Total.....	1,810	633	354	500	150	173
Approved.....	1,415	561	258	372	98	126
Not approved.....	395	72	96	128	52	47
Agricultural school:						
Total.....	746	173	241	220	62	50
Approved.....	569	142	192	151	45	39
Not approved.....	177	31	49	69	17	11
Trade or industrial:						
All-day school—						
Total.....	160	69	15	20	18	38
Approved.....	122	61	12	18	6	25
Not approved.....	38	8	3	2	12	13
Evening school—						
Total.....	276	82	17	117	18	42
Approved.....	260	79	16	113	17	35
Not approved.....	16	3	1	4	1	7
Home economics:						
All-day school—						
Total.....	320	138	63	41	47	31
Approved.....	209	116	23	30	25	15
Not approved.....	111	22	40	11	22	16
Evening school—						
Total.....	140	52	8	73	1	6
Approved.....	95	49	8	31	1	6
Not approved.....	45	3	.....	42	.....	.....
Part-time school:						
Total.....	168	119	10	29	4	6
Approved.....	160	114	7	29	4	6
Not approved.....	8	5	3	.....	.....	.....

¹ Including 485 pupils not classified according to type of school.

² Given as 45,985 in the original table. The total here given is the sum of the males and females as shown in the original report.

³ Given as 23,196 in the original table. The total here given is the sum of the males and females as shown in the original report.

There were altogether 139 State directors and supervisors appointed and the amount expended for their salaries was \$241,081.71, of which \$181,453.40 was paid out of State or Federal funds, the remainder being paid out of local or other funds.

TRADE AND INDUSTRIAL EDUCATION.

EVENING SCHOOLS.

In establishing industrial schools a knowledge of the needs of the community, industrial and individual, are presupposed and the content and method of presentation must be arranged to satisfy those needs. It is stated that probably more people can be reached in evening schools than by any other form of vocational education, as the majority of people who need training to increase their industrial efficiency are already breadwinners and can only be reached by classes conducted outside of their working hours. The extension work of the Department of Agriculture, of many colleges and high schools, and of private foundations is all part of a widespread movement for adult education which is furthered by the Smith-Hughes Act, which provides, among the other phases of educational work, for evening industrial classes. Under the Federal plan, however, the instruction is limited to giving instruction which is supplemental to day employment. Therefore any plan depending for financial support on Federal funds must distinguish clearly between general and vocational education, as it is intended that these funds shall be used only to assist those persons who are already engaged in a vocation they have chosen. The trade extension class therefore "takes men or women from a given trade or industrial pursuit and attempts to teach them in short intensive courses in evening schools, either knowledge or skill in the manipulation of tools of the trade or industry in which they are engaged, or the related subjects of the industry, such as science, drawing, and mathematics, which will prove a valuable asset to them in the occupation which they have chosen and upon which they have entered." It might be explained here that "evening school" is a generic term to cover classes organized to accommodate either day or night workers and may be held at other hours than in the evening.

The evening schools have proved successful in reaching specialized workers who wish to learn, perhaps, how to run another machine than the one they are working at; skilled workers who by a little extra work can meet new demands upon them which the progress of their trade creates; workers on specialized jobs who wish to prepare for promotion to the next higher job; persons in skilled occupations who wish instruction in related subjects; and persons of superior training and ability who are willing to take an extended course of study. The minimum entrance age is 16 but it has been found that the average

age so far is about 23 or 24. Experience has shown that the majority of evening schools can hope to hold the majority of their pupils for only a relatively short space of time, usually not more than a year. Therefore the Federal board believes the most effective course is the short-unit course, each unit complete in itself, but the units arranged in sequence and open to all workers who can prove their ability to do the work of any particular part of any series.

PART-TIME CLASSES.

Part-time classes are organized for workers who have left the schools and who could otherwise receive no further education, and thus it is not a question of substituting vocational for other education, which might be opposed by some who are somewhat apprehensive of the rapid development of vocational education in the schools. It is a question only of providing some systematic instruction relating to the workers' needs for part of the regular working hours. It is to reach in a measure the large army of children who leave the public schools each year to go, without training, into the factories.

The need of further instruction of these workers is evident and it is also clear that part-time schools for these youthful workers are to be preferred to evening classes. When the part-time school "aims to complete general education, it is designated a part-time continuation school; when it aims to increase skill and intelligence in a vocation other than that in which the pupils are employed, it is a part-time trade preparatory school; and when it provides training that is strictly supplementary and related to the employment of its pupils, it is a part-time trade extension school."

It is stated that "the fact that not more than seven States of the Union have up to the present time taken action by law resulting in the establishment of a State system of vocational schools for the continued preparation of young people already occupied in ordinary labor, is further evidence that our people are not yet fully alive to the fact that evening and part-time schools are just now vastly more important and profitable than all-day trade schools." However, all of the States have accepted the Smith-Hughes law making Federal money available for part-time education.

In relation to women it is considered that the home-economics section of the Federal board can do particularly valuable work in cooperation with State boards at this time since the war emergency has brought heavy demands on the home makers in the way of changes in the amount and quality of food, clothing, and other supplies, and changes in home management due to altered incomes and scarcity of labor. These changes result in the need and demand for short and well-organized courses in the various problems in homemaking. In relation to the problem of training teachers of home

economics the necessity for making the State supervisor the main trainer of teachers in service is stressed by the board and with this object in view they have interpreted the use of funds to cover this supervision, which removes any objection to State supervision from the standpoint of expense.

VOCATIONAL AGRICULTURAL EDUCATION.

Because of present needs for increased production the Federal board is urging State boards to avail themselves as much as possible of Federal funds for agricultural education. As the teachers of vocational agriculture are both experts and practical farmers their advice and help can greatly influence the kind, quality, and amount of crops at a time when the best yield possible is needed. The need of teachers is very great and as there was a shortage in the supply of teachers and of farm laborers at the time we entered the war every effort has been made by the board to secure all the available teachers and persons capable of being prepared for teaching.

In many cases the teachers have carried on emergency training for seasonal occupations and have assisted in the mobilization of farm labor with the result that frequently increased production may be attributed to these vocational teachers.

Special attention has also been given to the development of the home project phase of vocational agriculture.

The home project is favored because it enables the boy to gain, under normal conditions, practical experience in the practice of farm processes which he sees demonstrated by the teacher at the school. The teacher in cooperation with the parent supervises the work and this serves to bring them into closer relationship and also operates to make the instruction locally applicable. "The home project is intended to throw the boy on his own resources and develop his power of initiative, as well as give increased knowledge and skill in farming methods."

The results to be expected are that the boy will develop skill and the ability to manage as well as gain knowledge of the subject matter, and as it should frequently lead to improved farming it may in a sense serve as a demonstration to others of the value of the work.

In general the home project is related to the main course of instruction for the year or some associated branch of study; local conditions also have to be taken into consideration in determining the choice of projects.

The fact that Negroes in the South own farms valued at a total of \$1,000,000,000 shows the importance of instituting vocational agriculture courses for them. This need has been recognized in a measure by the Southern States and last year there were 1,055 pupils enrolled in the 39 Negro schools aided by Federal funds. A large

part of the work is carried on in elementary schools with a minimum age limit for pupils of 14 years. The work of the schools is directed toward production farming and at least three hours of the pupil's time each day is given to the vocational work, one and one-half hours to study and recitation, and the same time to practical work. Each pupil carries on practical work at his home or if the pupils lack the fund these projects are carried on on rented or borrowed land or school property.

There has been a lack of competent teachers for these pupils, and in the last year South Carolina, Alabama, Mississippi, and Tennessee have provided teacher-training classes.

VOCATIONAL COMMERCIAL EDUCATION.

RETAIL SELLING.

Through the cooperation of the National Retail Dry Goods Association, local retail organizations, and the Federal board it is possible to secure, for boards of education and merchants desiring this class of instruction, aid in establishing courses in high schools and stores for training young people for the vocation of retail selling. It is only recently that recognition of the fact that more young people go into retail selling positions than into office positions has been found in those high schools which have maintained commercial courses.

It is stated that "enough has already been done to demonstrate that courses in retail selling have educational value comparable with any other high-school course, especially when the practice work in stores is a required part of the work. The stores are the laboratory and furnish untold opportunity for an understanding of business; and the school, with a properly trained teacher, teaches, advises, and directs these boys and girls not merely how to get positions but how to hold them when secured."

EMPLOYMENT MANAGEMENT AS A FACTOR IN DEVELOPING INDUSTRIAL TRAINING FOR WOMEN.

Owing to war-time labor conditions interest has been greatly stimulated in employment management and training courses to prepare people as employment managers have been started at various centers under the Ordnance Department and by State universities and private organizations.

"Since employment management is concerned with the selection, training, placing, and advancement of workers, it is probably the most immediate and effective approach through which industrial training for women may be advanced."

The women serving as employment managers, directors of training, and production foremen have before them the immediate problem of providing training for the women who are to do the teaching in the

plant and therefore the greatest service which the Federal board can render the employment managers is the inauguration of teacher training classes. "It is possible to consummate an arrangement with a plant whereby women who have entered the industry or are under agreement to enter through the employment service department shall be given a course of adequate training under public supervision and control which shall extend over a period of not less than 144 hours. Whether this training is given in the school or in the factory, or both, it is, subject to approval, a part-time class, which can receive Federal aid under the terms of the Federal vocational education act."

FOREIGN COMMERCE.

While the need for foreign trade education was regarded at first as a war emergency need, it is also most essential for peace time, as it is certain that the foreign trade which has expanded so enormously during the war will, if properly conducted, continue to expand for many years after the war. With the tremendous increase in merchant ship tonnage, therefore, comes the need for men to manage and operate these ships and to carry on the business overseas or the new merchant marine will become a national loss.

The classes of students to be trained may be divided into the following categories: Employees, owners, or executives; college students; high-school pupils; and engineers and technical men. All four groups are important, and all require different handling. The mediums through which the courses may be given are varied. Chamber of commerce evening schools; the Young Men's Christian Association; university extension; correspondence schools; private business colleges and continuation schools; all may be utilized for this work.

The subject matter for the commercial course is divided first into document technique, export, marketing, etc., and second according to the geographical areas and includes a very intensive training in the practical use of the principal language of the area.

Advanced courses are grouped according to commercial areas into English, French, Far East, Latin America, and Germanic groups. It is difficult to say which language is most important, as there are some 10 or 12 languages commercially useful, but the basic language is French, not only because it is popular at present, but also because it is the language used in international conventions and in the diplomatic and consular service.

Recently arrangements have been completed for cooperation between the Federal board and the Department of Commerce by which the board has undertaken the work of arranging systematically the consular and trade reports issued daily by the Bureau of Foreign and

Domestic Commerce. The Federal board has now in course of preparation a manual of readings on foreign trade "prepared to bring together in one volume the best things which the consuls, commercial attachés, special agents, trade commissioners, and business men of the United States have written and said on the whole subject of foreign trade." It is also preparing documents used in foreign trade which "will give, step by step, for the various sorts of foreign trade transactions, the actual documents in use in typical American concerns." These collections of documents form the basis for short-unit courses in foreign trade technique. These courses "cover the common selling methods and practices, the mechanism and documentation of foreign trade, exchange credit, and banking." Further specialized courses may be provided for those students who have mastered the fundamentals of the subject which will give the student a knowledge of the economic resources and trade conditions of selected countries or commercial regions.

Some of the most recent developments in the working out of the plans of the Federal board are: (1) Its definite affiliation with the United States Shipping Board by which account is to be taken not only of the foreign aspect of the subject but also of the various duties in the shore operation of ships. (2) The adoption of resolutions by the convention of the American Manufacturers' Export Association held in October, which indorsed the work of the various governmental agencies in this regard, and urged upon Congress the necessity of providing these agencies with sufficient funds to investigate and report recommendations to Congress on the problem and to appoint a committee of the association to cooperate with the governmental agencies in educational preparation for foreign trade. Cooperation as opposed to trade rivalry was the keynote of this convention. It was said that the phrase which may become the slogan of this new movement in foreign trade and shipping is "to train clerks who will not remain clerks." The point was brought out that it takes some courage to advocate training people with collegiate training for clerical positions, but that as the military schools do not graduate generals, but second lieutenants, so it can not be expected that they will turn out only expert managers, but that they will give such training as will enable those with ability to assume additional responsibilities as they may arise. (3) An arrangement with the Better Business Letters Association, a new and vigorous organization for the production of a course of practical and detailed instruction in foreign trade correspondence. (4) The formation of university extension chamber of commerce classes at Madison, Wis., which it is expected will form a precedent and a model for institutions in other cities. A committee consisting of a manufacturer, a business man, the State superintendent of vocational education, and the director of the university exten-

sion work of the University of Wisconsin have in their charge the organization of resident evening classes, and the university extension and other well-organized correspondence schools will take care of the instruction when students can not attend the resident classes. The idea back of the Madison plan is that as in commerce and shipping there are the home office force and the oversea service, and as the second grows out of the first, that by furnishing instruction for the home office in language and subject matter the overseas service will ultimately take care of itself.

TRAINING OF TEACHERS FOR VOCATIONAL EDUCATION.

The problem of training teachers for work in the vocational schools or departments of trade and industrial education is practically a new one, as up to 1917 few of the States had either a program for vocational education or any system of training teachers for this work. While many State universities, colleges, and normal schools trained teachers of agriculture and home economics for service in secondary schools, little has been done toward the preparation of teachers of trades and industries or of other teachers who wish to teach in the industrial, continuation, evening trade extension, or part-time schools.

The Smith-Hughes Act provides that States wishing to avail themselves of assistance in this respect must begin their program of teacher training not later than 1920, and as there is and will be a constantly growing demand for teachers who are suitably qualified it is stated there is the greatest necessity to formulate and put into operation these plans at the earliest possible moment. The statement is also made that most of the State boards for vocational education have submitted plans to the Federal board for approval which provide for immediate organization of teacher-training work.

OPPORTUNITIES FOR DISABLED SOLDIERS AND SAILORS IN PENNSYLVANIA INDUSTRIES.

The part that the State of Pennsylvania is taking in the national plan for rehabilitating and placing in industry soldiers and sailors disabled in war service is quite fully described in a recent bulletin of the State department of labor and industry.¹ Briefly, the announced purpose of the bulletin is to make available to all employers and employees of Pennsylvania information on the project of placing disabled soldiers and sailors at suitable tasks in industry. The data set forth are the result of the circularization of about 30,000 employers of the State who were asked to fill in a questionnaire giving the types of work or machine operations that could be performed by men of varying

¹ The Bulletin. Pennsylvania Department of Labor and Industry. Pennsylvania's part in the national plan for rehabilitating and placing in industry soldiers and sailors disabled in war service. Vol. V, Series of 1918, No. 2. Harrisburg, 1918. 124 pp. Illustrated.

degrees of disability, and stating the number of such positions that would be open to these men. Request was also made for information concerning the number of positions now held by disabled men, the nature of the disability, age when disabled, present age, previous occupation, present occupation, present weekly wages, education previous to injury, education or special training for present occupation, what artificial appliance is used, etc. The assembling of this information with particular reference to the returned soldier and sailor will, it is believed, aid materially in solving the problem of replacing in suitable positions men injured in industry.

It is obvious that methods used in adjusting a man disabled in war to a suitable task in industry may just as properly be applied in finding a suitable task for a man injured in industry.

Of the several thousand replies received to the first questionnaire, many were indefinite, but the returns from 900 plants in 60 counties were selected for tabulation. These plants proposed to employ 49,417 disabled men. On an average, each employer agreed to place approximately 55 men. The total number of opportunities included 47,321 positions in industrial work, 908 in clerical and commercial, 16 in agriculture, and 1,172 in miscellaneous classifications. Twenty-four pages of the report are devoted to a classification of the tasks which, according to the judgment of the employers, could probably be performed by men variously handicapped and show, under each specified physical defect, the numbers of such openings. The following table gives the classification, by disability, of the 49,417 openings:

OPENINGS FOR DISABLED MEN IN PENNSYLVANIA, CLASSIFIED BY DISABILITY.

Disability.	Number of openings for men disabled as to—		Total.
	One member.	Both members.	
Loss of fingers.....	4,324	577	4,901
Loss of hand at wrist.....	545	4	549
Loss of arm below elbow.....	403	1	404
Loss of arm at shoulder.....	373	1	374
Stiff finger joints.....	2,421	1,889	4,310
Stiff wrist joint.....	1,381	489	1,870
Stiff elbow joint.....	853	51	904
Stiff shoulder joint.....	615	58	673
Partial loss of foot.....	2,135	473	2,608
Loss of foot at ankle.....	1,474	293	1,767
Loss of leg below knee.....	1,292	236	1,528
Loss of leg at knee.....	986	125	1,111
Loss of leg at middle of thigh.....	372	89	661
Loss of leg at hip joint.....	747	70	817
Stiffness of lower extremities.....	793	149	942
Blindness.....	5,618	2	5,620
Deafness.....	5,936	612	6,548
Loss of speech.....			2,864
Repulsive facial disfigurements.....			6,797
Hernia.....			1,773
General health impairment preventing heavy manual labor.....			957
Miscellaneous.....			1,439
Total.....			49,417

The report contains a chapter on placement of disabled soldiers and sailors in employment, in which is outlined the work to be done by the employment authorities, whose principal duty will be to determine in what industrial plants suitable opportunities, which are not merely blind-alley occupations, exist for returned disabled men. This suggests the necessity of conducting industrial surveys, the first duties of survey officials being to learn from the vocational education authorities the types of training courses to be completed in the near future by returned disabled men and to visit, in the community, industrial plants where it is probable that men so trained could be placed for final shop training or employment. This official, the report suggests, should at each plant first interview the owner or manager and outline, if necessary, the project of replacing disabled soldiers and sailors in industry and, upon obtaining cooperation of the plant management, ascertain the probable number of suitable men who could be placed in the various plant departments. A detailed survey of the shop conditions and processes in each department of the plant as to the possibilities for employment of men handicapped by various types of disability should then be made, it is stated.

It is obvious that the survey man should be a keen observer, of a high order of intelligence, with practical mechanical or technical education, and with considerable knowledge of the physical limitations resulting from various types of disability.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

From reports of retail prices of food received by the Bureau of Labor Statistics, the increase for the United States for November, 1918, for all articles combined is 1 per cent as compared with October, 1918, and 18 per cent as compared with November, 1917.

The five cuts of beef and pork chops, which show increases in price ranging from 26 to 30 per cent in the year period, show decreases ranging from 1 to 5 per cent during the month from October 15, 1918, to November 15, 1918. Rice, which has increased 23 per cent since last November, shows no change in price since last month. Lard, bread, and flour also remained the same price as in October. Eleven articles show a decrease in price during the month. Eggs, cheese, and milk show the greatest increases, and onions, the greatest decrease.

AVERAGE RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE NOV. 15, 1918,
COMPARED WITH NOV. 15, 1917, AND OCT. 15, 1918.

Article.	Unit.	Average retail price.					Per cent of increase (+) or decrease (-) Nov. 15, 1918, compared with—	
		Nov. 15, 1917.	Oct. 15, 1918.	Nov. 15, 1918.	Nov. 15, 1917.	Oct. 15, 1918.		
Sirloin steak.....	Pounds...	\$0.317	\$0.410	\$0.405	+28	-1		
Round steak.....	do.....	.296	.390	.385	+30	-1		
Rib roast.....	do.....	.250	.323	.320	+28	-1		
Chuck roast.....	do.....	.212	.279	.275	+30	-2		
Plate beef.....	do.....	.163	.215	.212	+30	-1		
Pork chops.....	do.....	.345	.454	.433	+26	-5		
Bacon.....	do.....	.482	.579	.583	+21	+1		
Ham.....	do.....	.426	.520	.524	+22	+1		
Lard.....	do.....	.326	.342	.342	+5	(1)		
Lamb.....	do.....	.301	.352	.351	+17	(2)		
Hens.....	do.....	.295	.390	.393	+33	+1		
Salmon, canned.....	do.....	.287	.309	.313	+9	+1		
Eggs, strictly fresh.....	Dozen.....	.581	.641	.741	+28	+16		
Eggs, storage.....	do.....			.541				
Butter.....	Pound.....	.528	.651	.668	+27	+3		
Cheese.....	do.....	.346	.385	.406	+17	+5		
Milk.....	Quart.....	.128	.148	.154	+20	+4		
Bread.....	Pound ³.....	.088	.098	.098	+11	(1)		
Flour.....	Pound.....	.068	.067	.067	-2	(1)		
Corn meal.....	do.....	.071	.068	.065	-9	-5		
Rice.....	do.....	.114	.140	.140	+23	(1)		
Potatoes.....	do.....	.032	.035	.033	+3	-6		
Onions.....	do.....	.058	.045	.040	-31	-11		
Beans, navy.....	do.....	.189	.167	.161	-15	-5		
Prunes.....	do.....	.166	.183	.184	+11	+1		
Raisins, seeded.....	do.....	.148	.155	.158	+7	+2		
Sugar.....	do.....	.095	.106	.108	+14	+2		
Coffee.....	do.....	.302	.305	.308	+2	+1		
Tea.....	do.....	.617	.675	.679	+10	+1		
All articles combined.....					+18	+1		

¹ No change in price.

² Decrease of less than five-tenths of 1 per cent.

³ Baked weight.

In the five-year period, November, 1913, to November, 1918, all the articles of food, combined, increased 75 per cent. Every article shows an increase of 50 per cent or more. Six articles increased 100 per cent or more; namely, pork chops and sugar, 100 per cent; flour, 103 per cent; corn meal, 110 per cent; bacon, 114 per cent; and lard, 115 per cent.

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

Article.	Unit.	Average retail price, Nov. 15—						Per cent of increase (+) or decrease (-) Nov. 15 of each specified year compared with Nov. 15, 1913.				
		1913	1914	1915	1916	1917	1918	1914	1915	1916	1917	1918
Sirloin steak.....	Pound..	\$0.254	\$0.254	\$0.257	\$0.270	\$0.317	\$0.405	(1)	+ 1	+ 6	+ 25	+ 59
Round steak.....	do.	.228	.235	.228	.243	.296	.385	+ 3	(1)	+ 7	+ 30	+ 69
Rib roast.....	do.	.197	.204	.199	.210	.250	.320	+ 4	+ 1	+ 7	+ 27	+ 62
Chuck roast.....	do.	.167	.162	.170	.170	.212	.275					
Plate beef.....	do.	.128	.120	.128	.128	.163	.212					
Pork chops.....	do.	.216	.218	.209	.234	.345	.433	+ 1	- 3	+ 8	+ 60	+100
Bacon.....	do.	.273	.281	.273	.298	.482	.583	+ 3	(1)	+ 9	+ 77	+114
Ham.....	do.	.270	.273	.268	.332	.426	.524	+ 1	- 1	+23	+ 58	+ 94
Lard.....	do.	.159	.156	.145	.256	.326	.342	- 2	- 8	+61	+105	+115
Lamb.....	do.	.185	.192	.198	.222	.301	.351	+ 4	+ 7	+20	+ 63	+ 90
Hens.....	do.	.205	.205	.203	.238	.285	.393	(1)	- 1	+16	+ 44	+ 92
Salmon, canned.....	do.			.198	.208	.287	.313					
Eggs, strictly fresh.....	Dozen..	.495	.450	.458	.514	.581	.741	- 9	- 8	+ 4	+ 17	+ 50
Eggs, storage.....	do.					.541						
Butter.....	Pound..	.386	.394	.366	.437	.528	.668	+ 2	- 5	+13	+ 37	+ 73
Cheese.....	do.			.232	.292	.346	.406					
Milk.....	Quart..	.091	.090	.089	.096	.128	.154	- 1	- 2	+ 6	+ 41	+ 69
Bread.....	Pound ²	.050	.064	.070	.084	.099	.098	+28	+40	+68	+ 98	+ 96
Flour.....	Pound..	.033	.037	.037	.057	.068	.067	+12	+12	+73	+106	+103
Corn meal.....	do.	.031	.033	.032	.038	.071	.065	+ 7	+ 3	+23	+129	+110
Rice.....	do.			.090	.091	.114	.140					
Potatoes.....	do.	.019	.015	.017	.035	.032	.033	-21	-11	+84	+ 68	+ 74
Onions.....	do.			.033	.051	.058	.040					
Beans, navy.....	do.			.085	.136	.189	.161					
Prunes.....	do.			.133	.138	.166	.184					
Raisins.....	do.			.125	.137	.148	.158					
Sugar.....	do.	.054	.062	.065	.086	.095	.108	+15	+20	+59	+ 76	+100
Coffee.....	do.			.299	.299	.302	.308					
Tea.....	do.			.546	.546	.617	.679					
All articles combined.....								(1)	- 1	+20	+ 47	+ 75

¹ No change in price.

² Baked weight.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR NOV. 15, 1913, 1914, 1917, 1918, AND OCT. 15, 1918.

[The prices shown 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.				
		Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.	Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.242	\$0.241	\$0.309	\$0.400	\$0.387	\$0.228	\$0.224	\$0.311	\$0.458	\$0.447
Round steak.....	do.....	.213	.222	.280	.372	.356	.213	.208	.304	.449	.436
Rib roast.....	do.....	.190	.189	.238	.315	.300	.175	.184	.253	.356	.349
Chuck roast.....	do.....	.161	.161	.202	.267	.259	.....	.154	.220	.301	.303
Plate beef.....	do.....	.097	.150	.211	.200	.....	.....	.134	.175	.241	.234
Pork chops.....	do.....	.250	.227	.363	.463	.425	.182	.198	.333	.472	.462
Bacon, sliced.....	do.....	.311	.300	.501	.603	.618	.215	.240	.451	.583	.591
Ham, sliced.....	do.....	.308	.300	.432	.549	.538	.275	.310	.468	.585	.593
Lard.....	do.....	.153	.155	.328	.351	.351	.150	.148	.327	.342	.345
Lamb.....	do.....	.202	.193	.321	.400	.381	.180	.190	.313	.402	.392
Hens.....	do.....	.210	.204	.317	.383	.386	.202	.200	.296	.444	.402
Salmon, canned.....	do.....	.....	.....	.235	.268	.270	.....	.....	.255	.279	.280
Eggs, strictly fresh.....	Dozen.....	.400	.369	.501	.585	.676	.459	.420	.580	.639	.731
Eggs, storage.....	do.....	.....	.....	.435	.....	.528	.....	.....	.440	.....	.579
Butter.....	Pound.....	.398	.394	.551	.645	.657	.384	.403	.539	.678	.696
Cheese.....	do.....	.....	.....	.347	.400	.422	.....	.....	.358	.404	.417
Milk.....	Quart.....	.106	.106	.175	.200	.200	.087	.087	.120	.160	.170
Bread.....	Pound ¹.....	.056	.060	.101	.100	.100	.055	.057	.091	.097	.097
Flour.....	Pound.....	.035	.037	.071	.068	.068	.031	.031	.068	.070	.069
Corn meal.....	do.....	.026	.028	.054	.057	.057	.026	.027	.064	.065	.062
Rice.....	do.....	.....	.....	.111	.145	.144	.....	.....	.114	.137	.141
Potatoes.....	do.....	.023	.018	.040	.047	.044	.018	.015	.030	.042	.038
Onions.....	do.....	.....	.....	.059	.057	.057	.....	.....	.049	.050	.041
Beans, navy.....	do.....	.....	.....	.188	.183	.179	.....	.....	.190	.180	.178
Prunes.....	do.....	.....	.....	.180	.181	.192	.....	.....	.173	.178	.185
Raisins, seeded.....	do.....	.....	.....	.161	.180	.181	.....	.....	.146	.156	.159
Sugar.....	do.....	.057	.067	.110	.105	.109	.048	.057	.096	.104	.104
Coffee.....	do.....	.....	.....	.292	.308	.307	.....	.....	.281	.286	.298
Tea.....	do.....	.....	.....	.784	.892	.886	.....	.....	.649	.718	.733
		Birmingham, Ala.					Boston, Mass.				
Sirloin steak.....	do.....	\$0.280	\$0.285	\$0.340	\$0.413	\$0.405	\$0.340	\$0.388	\$0.418	\$0.571	\$0.550
Round steak.....	do.....	.230	.240	.310	.378	.370	.350	.360	.421	.578	.568
Rib roast.....	do.....	.194	.209	.250	.339	.335	.239	.246	.307	.394	.385
Chuck roast.....	do.....	.....	.171	.202	.293	.289	.....	.178	.249	.325	.308
Plate beef.....	do.....	.....	.120	.163	.227	.221	.....	.....	.....	.....	.....
Pork chops.....	do.....	.230	.213	.348	.455	.420	.224	.248	.353	.497	.469
Bacon, sliced.....	do.....	.340	.350	.530	.609	.625	.246	.272	.458	.534	.545
Ham, sliced.....	do.....	.320	.310	.445	.520	.520	.310	.330	.443	.567	.567
Lard.....	do.....	.151	.155	.329	.347	.335	.158	.155	.329	.344	.344
Lamb.....	do.....	.219	.224	.325	.385	.383	.205	.220	.336	.374	.377
Hens.....	do.....	.193	.175	.286	.381	.386	.243	.240	.326	.449	.446
Salmon, canned.....	do.....	.....	.....	.278	.310	.314	.....	.....	.300	.320	.320
Eggs, strictly fresh.....	Dozen.....	.390	.360	.488	.567	.648	.606	.648	.737	.838	.902
Eggs, storage.....	do.....	.....	.....	.450	.....	.555	.....	.....	.477	.....	.551
Butter.....	Pound.....	.417	.392	.591	.667	.691	.382	.375	.517	.608	.638
Cheese.....	do.....	.....	.....	.396	.453	.....	.....	.....	.326	.344	.359
Milk.....	Quart.....	.100	.104	.152	.200	.200	.089	.089	.140	.158	.165
Bread.....	Pound ¹.....	.054	.055	.106	.111	.117	.060	.061	.091	.091	.091
Flour.....	Pound.....	.036	.037	.071	.069	.069	.036	.041	.075	.068	.067
Corn meal.....	do.....	.025	.025	.050	.055	.053	.035	.038	.076	.074	.071
Rice.....	do.....	.....	.....	.124	.144	.142	.....	.....	.118	.134	.139
Potatoes.....	do.....	.022	.018	.036	.043	.041	.017	.014	.035	.037	.034
Onions.....	do.....	.....	.....	.055	.049	.044	.....	.....	.058	.046	.034
Beans, navy.....	do.....	.....	.....	.194	.180	.170	.....	.....	.184	.173	.169
Prunes.....	do.....	.....	.....	.150	.162	.164	.....	.....	.168	.198	.193
Raisins, seeded.....	do.....	.....	.....	.163	.156	.165	.....	.....	.150	.154	.154
Sugar.....	do.....	.054	.064	.104	.105	.108	.054	.060	.102	.107	.107
Coffee.....	do.....	.....	.....	.333	.322	.326	.....	.....	.344	.341	.348
Tea.....	do.....	.....	.....	.739	.794	.829	.....	.....	.648	.661	.653

¹ Baked weight.

MONTHLY LABOR REVIEW.

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

Article.	Unit.	Buffalo, N. Y.					Chicago, Ill.				
		Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.	Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.	\$0.222	\$0.230	\$0.311	\$0.400	\$0.390	\$0.247	\$0.263	\$0.297	\$0.376	\$0.373
Round steak.....	do.	.194	.206	.289	.375	.365	.214	.234	.265	.343	.341
Rib roast.....	do.	.164	.178	.243	.316	.311	.195	.211	.245	.313	.313
Chuck roast.....	do.	.158	.158	.220	.283	.271	.177	.177	.206	.276	.276
Plate beef.....	do.	.128	.166	.226	.223	.223	.127	.162	.208	.206	.206
Pork chops.....	do.	.198	.210	.349	.447	.421	.193	.197	.312	.390	.377
Bacon sliced.....	do.	.212	.230	.460	.528	.530	.324	.319	.497	.593	.595
Ham, sliced.....	do.	.263	.280	.424	.523	.529	.323	.331	.445	.520	.525
Lard.....	do.	.142	.143	.315	.328	.327	.150	.151	.309	.332	.327
Lamb.....	do.	.156	.172	.276	.319	.308	.193	.201	.282	.323	.337
Hens.....	do.	.200	.196	.297	.394	.387	.174	.181	.258	.337	.315
Salmon, canned.....	do.	.280	.286	.286	.286	.287	.....	.....	.301	.306	.317
Eggs, strictly fresh.....	Dozen.	.485	.450	.595	.642	.739	.398	.358	.496	.559	.677
Eggs, storage.....	do.	.306	.428	.428	.....	.526	.303	.....	.411	.....	.513
Butter.....	Pound.	.381	.390	.506	.652	.654	.365	.364	.492	.615	.653
Cheese.....	do.	.334	.361	.361	.383	.....	.....	.....	.374	.395	.404
Milk.....	Quart.	.080	.080	.140	.155	.160	.080	.080	.119	.129	.140
Bread.....	Pound ¹ .	.056	.052	.098	.100	.100	.061	.070	.101	.102	.102
Flour.....	Pound.	.030	.035	.064	.063	.063	.029	.034	.064	.064	.063
Corn meal.....	do.	.026	.029	.074	.064	.060	.029	.029	.069	.067	.065
Rice.....	do.	.....	.113	.134	.137	.....	.....	.114	.139	.137	
Potatoes.....	do.	.018	.010	.032	.031	.028	.017	.012	.027	.027	.026
Onions.....	do.	.....	.056	.042	.038	.....	.....	.045	.036	.034	
Beans, navy.....	do.	.....	.196	.159	.151	.....	.....	.190	.163	.157	
Prunes.....	do.	.....	.166	.191	.192	.....	.....	.163	.182	.179	
Raisins, seeded.....	do.	.....	.140	.141	.145	.....	.....	.150	.154	.157	
Sugar.....	do.	.053	.061	.099	.104	.106	.051	.057	.085	.100	.106
Coffee.....	do.	.....	.295	.296	.300	.....	.....	.287	.289	.286	
Tea.....	do.	.....	.539	.640	.630	.....	.....	.588	.607	.604	
		Cleveland, Ohio.					Denver, Colo.				
Sirloin steak.....	do.	\$0.250	\$0.247	\$0.290	\$0.366	\$0.366	\$0.229	\$0.221	\$0.282	\$0.374	\$0.357
Round steak.....	do.	.224	.217	.270	.341	.339	.203	.211	.262	.347	.319
Rib roast.....	do.	.186	.189	.226	.281	.280	.167	.179	.220	.278	.270
Chuck roast.....	do.	.171	.206	.260	.262	.....	.153	.197	.247	.240	
Plate beef.....	do.	.....	.124	.156	.199	.198	.....	.107	.138	.179	
Pork chops.....	do.	.216	.220	.331	.423	.410	.204	.210	.346	.443	.399
Bacon, sliced.....	do.	.281	.296	.467	.557	.564	.280	.306	.506	.592	.593
Ham, sliced.....	do.	.357	.335	.441	.553	.545	.292	.317	.468	.571	.571
Lard.....	do.	.163	.161	.332	.343	.342	.160	.158	.344	.346	.347
Lamb.....	do.	.181	.197	.288	.330	.324	.152	.171	.298	.323	.304
Hens.....	do.	.199	.194	.294	.381	.374	.185	.188	.278	.349	.323
Salmon, canned.....	do.	.....	.291	.299	.300	.....	.....	.269	.299	.292	
Eggs, strictly fresh.....	Dozen.	.500	.477	.605	.656	.758	.450	.380	.528	.585	.679
Eggs, storage.....	do.	.357	.431	.....	.....	.534	.330	.....	.444	.....	.540
Butter.....	Pound.	.407	.409	.530	.651	.688	.350	.390	.485	.630	.645
Cheese.....	do.	.....	.348	.367	.390	.....	.....	.....	.351	.383	.393
Milk.....	Quart.	.080	.080	.120	.140	.150	.084	.084	.120	.118	.128
Bread.....	Pound ¹ .	.056	.057	.100	.100	.100	.055	.056	.100	.120	.120
Flour.....	Pound.	.032	.037	.069	.067	.067	.025	.030	.057	.059	.060
Corn meal.....	do.	.030	.034	.076	.066	.062	.076	.027	.061	.061	.059
Rice.....	do.	.....	.118	.144	.145	.....	.....	.116	.147	.150	
Potatoes.....	do.	.020	.012	.033	.034	.031	.016	.012	.029	.029	.028
Onions.....	do.	.....	.055	.038	.032	.....	.....	.049	.040	.037	
Beans, navy.....	do.	.....	.194	.147	.146	.....	.....	.186	.164	.157	
Prunes.....	do.	.....	.179	.179	.186	.....	.....	.182	.187	.190	
Raisins, seeded.....	do.	.....	.143	.150	.156	.....	.....	.143	.147	.151	
Sugar.....	do.	.....	.097	.101	.108	.....	.....	.089	.110	.114	
Coffee.....	do.	.054	.063	.097	.101	.108	.051	.058	.080	.100	.109
Tea.....	do.	.....	.295	.298	.305	.....	.....	.300	.302	.304	
Tea.....	do.	.....	.556	.661	.667	.....	.....	.577	.642	.641	

¹ Baked weight.

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

Article.	Unit.	New York, N. Y.					Philadelphia, Pa.				
		Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.	Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.259	\$0.266	\$0.326	\$0.438	\$0.430	\$0.305	\$0.311	\$0.374	\$0.501	\$0.534
Round steak.....	do.....	.254	.265	.335	.454	.448	.257	.266	.344	.470	.465
Rib roast.....	do.....	.213	.217	.279	.372	.383	.215	.223	.283	.371	.376
Chuck roast.....	do.....	.167	.218	.301	.301	.303	.185	.237	.323	.323	.326
Plate beef.....	do.....	.157	.209	.270	.270	.270	.122	.169	.215	.226	.226
Pork chops.....	do.....	.226	.233	.339	.467	.455	.225	.227	.356	.449	.449
Bacon, sliced.....	do.....	.256	.266	.459	.558	.553	.269	.278	.469	.575	.583
Ham, sliced.....	do.....	.278	.300	1.309	.580	.569	.304	.318	.482	.575	.581
Lard.....	do.....	.162	.159	.331	.341	.343	.155	.150	.330	.342	.339
Lamb.....	do.....	.151	.167	.265	.305	.312	.188	.197	.310	.365	.369
Hens.....	do.....	.211	.214	.295	.410	.408	.231	.232	.322	.429	.441
Salmon, canned.....	do.....	.340	.348	.348	.348	.354	.....	.....	.263	.292	.294
Eggs, strictly fresh.....	Dozen..	.561	.493	.647	.692	.802	.508	.475	.593	.663	.776
Eggs storage.....	do.....	.373	.446	.446	.....	.561	.347	.....	.434	.....	.578
Butter.....	Pound..	.399	.410	.516	.656	.685	.443	.447	.567	.705	.716
Cheese.....	do.....	.338	.359	.367	.359	.367	.....	.....	.357	.380	.400
Milk.....	Quart..	.090	.090	.140	.156	.170	.080	.080	.122	.140	.140
Bread.....	Pound ² ..	.060	.063	.099	.100	.099	.048	.048	.088	.095	.095
Flour.....	Pound..	.032	.035	.077	.073	.071	.032	.037	.072	.070	.067
Corn meal.....	do.....	.035	.036	.083	.077	.076	.029	.030	.072	.069	.067
Rice.....	do.....	.....	.119	.140	.139	.....	.....	.....	.123	.144	.147
Potatoes.....	do.....	.023	.019	.036	.040	.039	.023	.019	.038	.043	.042
Onions.....	do.....	.....	.060	.048	.043	.....	.....	.....	.054	.045	.041
Beans, navy.....	do.....	.....	.187	.172	.168	.....	.....	.....	.184	.163	.161
Prunes.....	do.....	.....	.169	.193	.195	.....	.....	.....	.167	.181	.195
Raisins, seeded.....	do.....	.....	.147	.150	.152	.....	.....	.....	.133	.146	.146
Sugar.....	do.....	.049	.054	.100	.106	.106	.050	.054	.096	.105	.105
Coffee.....	do.....	.....	.261	.280	.283	.....	.....	.....	.279	.273	.277
Tea.....	do.....	.....	.532	.551	.541	.....	.....	.....	.585	.605	.590
		Pittsburgh, Pa.					St. Louis, Mo.				
Sirloin steak.....	do.....	\$0.273	\$0.290	\$0.345	\$0.463	\$0.456	\$0.266	\$0.273	\$0.296	\$0.375	\$0.373
Round steak.....	do.....	.240	.240	.318	.423	.422	.236	.250	.289	.367	.368
Rib roast.....	do.....	.217	.224	.265	.355	.353	.201	.200	.249	.304	.308
Chuck roast.....	do.....	.180	.231	.312	.312	.308	.....	.165	.205	.259	.253
Plate beef.....	do.....	.135	.168	.229	.225	.225	.....	.142	.167	.211	.209
Pork chops.....	do.....	.225	.230	.350	.463	.433	.178	.203	.301	.423	.395
Bacon, sliced.....	do.....	.304	.309	.494	.602	.613	.258	.275	.480	.544	.565
Ham, sliced.....	do.....	.298	.325	.456	.588	.588	.273	.275	.456	.537	.550
Lard.....	do.....	.157	.154	.331	.343	.343	.129	.145	.315	.317	.316
Lamb.....	do.....	.203	.212	.342	.381	.379	.183	.193	.295	.320	.325
Hens.....	do.....	.238	.242	.338	.435	.441	.165	.180	.248	.323	.322
Salmon, canned.....	do.....	.299	.299	.323	.319	.319	.....	.....	.285	.318	.319
Eggs, strictly fresh.....	Dozen..	.463	.395	.553	.607	.752	.389	.333	.471	.565	.676
Eggs, storage.....	do.....	.334	.453	.453	.....	.551	.325	.....	.393	.....	.499
Butter.....	Pound..	.404	.406	.528	.675	.695	.381	.385	.522	.653	.673
Cheese.....	do.....	.351	.397	.420	.397	.420	.....	.....	.353	.398	.426
Milk.....	Quart..	.092	.093	.127	.140	.150	.088	.088	.130	.142	.140
Bread.....	Pound ² ..	.054	.055	.101	.098	.098	.056	.060	.104	.100	.100
Flour.....	Pound..	.032	.037	.070	.068	.067	.029	.034	.061	.064	.063
Corn meal.....	do.....	.030	.032	.087	.074	.073	.025	.026	.064	.060	.052
Rice.....	do.....	.....	.112	.144	.145	.....	.....	.....	.112	.138	.137
Potatoes.....	do.....	.020	.014	.033	.036	.033	.018	.013	.031	.032	.030
Onions.....	do.....	.....	.053	.045	.043	.....	.....	.....	.044	.044	.039
Beans, navy.....	do.....	.....	.195	.168	.159	.....	.....	.....	.187	.155	.152
Prunes.....	do.....	.....	.172	.202	.213	.....	.....	.....	.170	.196	.193
Raisins, seeded.....	do.....	.....	.146	.151	.151	.....	.....	.....	.168	.173	.174
Sugar.....	do.....	.057	.064	.105	.108	.104	.051	.056	.088	.109	.109
Coffee.....	do.....	.....	.298	.299	.305	.....	.....	.....	.281	.277	.287
Tea.....	do.....	.....	.715	.767	.780	.....	.....	.....	.632	.698	.701

¹ Whole.

² Baked weight.

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

Article.	Unit.	San Francisco, Cal.					Seattle, Wash.				
		Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.	Nov. 15—			Oct. 15, 1918.	Nov. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.210	\$0.210	\$0.240	\$0.322	\$0.330	\$0.236	\$0.228	\$0.267	\$0.367	\$0.363
Round steak.....	do.....	.197	.203	.236	.318	.321	.206	.208	.253	.354	.353
Rib roast.....	do.....	.213	.220	.234	.305	.305	.200	.190	.221	.313	.312
Chuck roast.....	do.....	.155	.167	.167	.237	.239	.146	.183	.261	.259	.259
Plate beef.....	do.....	.148	.162	.216	.221	.221	.124	.154	.216	.211	.211
Pork chops.....	do.....	.242	.245	.363	.444	.449	.240	.235	.396	.495	.479
Bacon, sliced.....	do.....	.344	.357	.537	.612	.605	.320	.338	.522	.620	.628
Ham, sliced.....	do.....	.320	.330	.488	.565	.562	.300	.300	.434	.553	.524
Lard.....	do.....	.177	.179	.322	.337	.336	.169	.160	.307	.340	.338
Lamb.....	do.....	.170	.188	.289	.342	.345	.184	.176	.296	.359	.354
Hens.....	do.....	.248	.243	.334	.437	.499	.242	.230	.283	.385	.393
Salmon, canned.....	do.....	.....	.....	.250	.275	.281	.....	.....	.288	.311	.305
Eggs, strictly fresh.....	Dozen.....	.650	.558	.638	.756	.844	.592	.579	.666	.716	.881
Eggs, storage.....	do.....	.407	.....	.451	.....	.547	.375	.....	.488	.....	.574
Butter.....	Pound..	.404	.388	.501	.700	.683	.408	.394	.542	.703	.689
Cheese.....	do.....	.....	.....	.324	.375	.393	.....	.....	.308	.363	.388
Milk.....	Quart.....	.100	.100	.121	.140	.140	.100	.095	.120	.147	.150
Bread.....	Pound ¹.....	.059	.060	.093	.100	.100	.056	.060	.104	.103	.099
Flour.....	Pound..	.034	.039	.061	.071	.069	.029	.034	.059	.066	.063
Corn meal.....	do.....	.035	.037	.074	.074	.073	.032	.034	.074	.075	.073
Rice.....	do.....	.....	.....	.108	.141	.141	.....	.....	.111	.145	.145
Potatoes.....	do.....	.019	.018	.031	.033	.031	.014	.013	.022	.027	.025
Onions.....	do.....	.....	.....	.034	.027	.026	.....	.....	.045	.042	.040
Beans, navy.....	do.....	.....	.....	.174	.150	.150	.....	.....	.187	.171	.168
Prunes.....	do.....	.....	.....	.147	.166	.171	.....	.....	.144	.176	.177
Raisins, seeded.....	do.....	.....	.....	.132	.139	.138	.....	.....	.134	.151	.152
Sugar.....	do.....	.054	.060	.081	.104	.105	.061	.066	.089	.108	.109
Coffee.....	do.....	.....	.....	.305	.307	.314	.....	.....	.312	.317	.321
Tea.....	do.....	.....	.....	.539	.559	.570	.....	.....	.554	.598	.604

Article.	Unit.	Washington, D. C.				
		November 15—			Oct. 15, 1918.	Nov. 15, 1918.
		1913	1914	1917		
Sirloin steak.....	Pound..	\$0.265	\$0.271	\$0.360	\$0.514	\$0.510
Round steak.....	do.....	.225	.244	.332	.484	.478
Rib roast.....	do.....	.210	.210	.277	.402	.394
Chuck roast.....	do.....	.....	.178	.237	.353	.348
Plate beef.....	do.....	.....	.127	.184	.255	.237
Pork chops.....	do.....	.....	.214	.234	.370	.523
Bacon, sliced.....	do.....	.....	.264	.268	.492	.584
Ham, sliced.....	do.....	.....	.313	.312	.432	.562
Lard.....	do.....	.....	.150	.146	.325	.350
Lamb.....	do.....	.....	.191	.210	.337	.438
Hens.....	do.....	.....	.213	.200	.311	.453
Salmon, canned.....	do.....	.....	.479	.....	.269	.331
Eggs, strictly fresh.....	Dozen.....	.479	.423	.....	.645	.782
Eggs, storage.....	do.....	.350	.....	.....	.453	.576
Butter.....	Pound..	.403	.414	.....	.534	.700
Cheese.....	do.....	.....	.....	.....	.354	.395
Milk.....	Quart.....	.090	.090	.140	.170	.170
Bread.....	Pound ¹.....	.057	.057	.101	.103	.101
Flour.....	Pound..	.038	.041	.073	.069	.069
Corn meal.....	do.....	.026	.028	.067	.059	.058
Rice.....	do.....	.....	.....	.121	.133	.144
Potatoes.....	do.....	.....	.018	.014	.033	.033
Onions.....	do.....	.....	.....	.....	.052	.044
Beans, navy.....	do.....	.....	.....	.....	.201	.159
Prunes.....	do.....	.....	.....	.....	.177	.199
Raisins, seeded.....	do.....	.....	.....	.....	.150	.163
Sugar.....	do.....	.051	.057	.....	.096	.105
Coffee.....	do.....	.....	.....	.....	.286	.297
Tea.....	do.....	.....	.....	.....	.630	.726

¹ Baked weight.

MONTHLY LABOR REVIEW.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR OCT. 15, 1918, AND NOV. 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.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	Pound..	\$0.524	\$0.515	\$0.365	\$0.362	\$0.379	\$0.375	\$0.345	\$0.340	\$0.393	\$0.381
Round steak.....	do.	.510	.500	.341	.337	.388	.379	.340	.337	.375	.362
Rib roast.....	do.	.392	.390	.306	.306	.327	.323	.286	.275	.307	.286
Chuck roast.....	do.	.329	.335	.255	.249	.278	.273	.243	.234	.279	.279
Plate beef.....	do.	.216	.213	.186	.181	.225	.218	.218	.211	.233	.227
Pork chops.....	do.	.467	.469	.495	.471	.505	.483	.402	.383	.398	.373
Bacon, sliced.....	do.	.608	.623	.639	.664	.621	.619	.541	.545	.580	.577
Ham, sliced.....	do.	.609	.613	.564	.575	.532	.540	.530	.528	.540	.551
Lard.....	do.	.339	.342	.341	.337	.346	.356	.328	.323	.341	.342
Lamb.....	do.	.346	.364	.361	.352	.381	.400	.320	.308	.383	.370
Hens.....	do.	.426	.435	.396	.387	.472	.478	.371	.369	.333	.342
Salmon, canned.....	do.	.354	.349	.339	.400	.305	.311	.291	.284	.302	.292
Eggs, strictly fresh.....	Dozen..	.794	.933	.717	.794	.555	.590	.554	.662	.584	.697
Eggs, storage.....	do.	.554	.554	.586	.586	.531	.531	.544	.544	.513	.513
Butter.....	Pound..	.604	.614	.656	.667	.666	.672	.649	.676	.645	.695
Cheese.....	do.	.359	.381	.389	.395	.396	.420	.405	.419	.371	.400
Milk.....	Quart..	.155	.170	.150	.150	.180	.200	.140	.140	.140	.150
Bread.....	Pound ¹	.100	.100	.100	.100	.100	.100	.097	.096	.096	.097
Flour.....	Pound..	.069	.069	.069	.069	.071	.070	.067	.065	.066	.066
Corn meal.....	do.	.083	.082	.088	.084	.061	.058	.058	.056	.064	.061
Rice.....	do.	.144	.143	.148	.147	.120	.120	.142	.140	.143	.141
Potatoes.....	do.	.038	.036	.022	.021	.049	.046	.036	.034	.038	.032
Onions.....	do.	.050	.040	.046	.043	.059	.053	.040	.036	.046	.040
Beans, navy.....	do.	.173	.172	.172	.166	.193	.192	.156	.142	.158	.142
Prunes.....	do.	.189	.191	.173	.184	.195	.208	.181	.162	.193	.179
Raisins, seeded.....	do.	.161	.163	.148	.150	.165	.166	.158	.161	.148	.151
Sugar.....	do.	.107	.109	.116	.115	.103	.104	.102	.108	.109	.110
Coffee.....	do.	.319	.324	.423	.423	.289	.288	.278	.270	.289	.295
Tea.....	do.	.680	.659	.781	.805	.677	.697	.688	.665	.840	.831
		Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	do.	\$0.386	\$0.375	\$0.580	\$0.583	\$0.339	\$0.343	\$0.365	\$0.356	\$0.412	\$0.407
Round steak.....	do.	.376	.373	.505	.507	.345	.346	.355	.346	.393	.393
Rib roast.....	do.	.330	.327	.386	.378	.286	.286	.280	.276	.325	.319
Chuck roast.....	do.	.294	.285	.319	.308	.244	.242	.258	.253	.276	.279
Plate beef.....	do.	.237	.235	.235	.235	.209	.203	.208	.203	.218	.206
Pork chops.....	do.	.440	.439	.472	.437	.454	.438	.432	.398	.477	.450
Bacon, sliced.....	do.	.609	.626	.535	.533	.713	.656	.550	.546	.604	.609
Ham, sliced.....	do.	.562	.558	.523	.524	.509	.514	.538	.546	.502	.527
Lard.....	do.	.343	.333	.334	.337	.319	.320	.338	.338	.343	.349
Lamb.....	do.	.396	.397	.374	.380	.367	.413	.375	.373	.376	.376
Hens.....	do.	.328	.341	.429	.445	.350	.367	.304	.306	.437	.427
Salmon, canned.....	do.	.305	.307	.291	.288	.313	.314	.258	.257	.293	.300
Eggs, strictly fresh.....	Dozen..	.559	.623	.818	.879	.530	.568	.552	.693	.600	.700
Eggs, storage.....	do.	.540	.540	.553	.553	.509	.509	.530	.530	.571	.571
Butter.....	Pound..	.626	.633	.584	.612	.645	.665	.633	.676	.653	.672
Cheese.....	do.	.391	.428	.355	.363	.365	.395	.386	.407	.391	.440
Milk.....	Quart..	.180	.190	.150	.160	.184	.192	.120	.130	.180	.180
Bread.....	Pound ¹	.100	.100	.100	.100	.096	.090	.100	.100	.100	.100
Flour.....	Pound..	.067	.067	.072	.070	.072	.070	.063	.064	.071	.071
Corn meal.....	do.	.068	.067	.079	.080	.066	.065	.062	.057	.063	.062
Rice.....	do.	.136	.137	.136	.137	.122	.123	.147	.147	.134	.134
Potatoes.....	do.	.037	.037	.036	.034	.036	.036	.030	.029	.048	.044
Onions.....	do.	.055	.052	.052	.042	.045	.045	.046	.039	.065	.063
Beans, navy.....	do.	.177	.174	.175	.178	.168	.166	.152	.145	.188	.180
Prunes.....	do.	.196	.180	.178	.179	.164	.160	.181	.174	.194	.199
Raisins, seeded.....	do.	.151	.152	.162	.162	.169	.169	.168	.168	.173	.170
Sugar.....	do.	.108	.110	.109	.110	.106	.109	.099	.110	.098	.105
Coffee.....	do.	.332	.332	.336	.333	.279	.287	.295	.301	.332	.336
Tea.....	do.	.775	.775	.595	.604	.587	.607	.796	.793	.768	.786

¹ Baked weight.

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

Article.	Unit.	Kansas City, Mo.		Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	Pound..	\$0.373	\$0.370	\$0.404	\$0.404	\$0.371	\$0.371	\$0.558	\$0.558	\$0.393	\$0.377
Round steak.....	do.....	.361	.352	.385	.383	.351	.351	.518	.509	.363	.355
Rib roast.....	do.....	.277	.284	.338	.348	.307	.305	.374	.359	.295	.306
Chuck roast.....	do.....	.243	.236	.281	.283	.270	.266	.321	.311	.271	.263
Plate beef.....	do.....	.210	.200	.235	.229	.233	.231	.....	.....	.233	.225
Pork chops.....	do.....	.438	.376	.463	.436	.437	.424	.486	.447	.463	.426
Bacon, sliced.....	do.....	.591	.602	.621	.607	.586	.591	.543	.544	.588	.606
Ham, sliced.....	do.....	.519	.527	.525	.538	.551	.540	.535	.539	.521	.533
Lard.....	do.....	.352	.352	.336	.346	.341	.339	.345	.344	.336	.342
Lamb.....	do.....	.309	.297	.393	.375	.388	.388	.355	.366	.400	.369
Hens.....	do.....	.321	.312	.350	.355	.367	.366	.453	.461	.342	.348
Salmon, canned.....	do.....	.321	.323	.321	.306	.279	.295	.304	.309	.381	.382
Eggs, strictly fresh.....	Dozen.....	.554	.668	.571	.596	.558	.663	.790	.915	.572	.642
Eggs, storage.....	do.....	.....	.522	.....	.562	.....	.495	.....	.571	.....	.538
Butter.....	Pound.....	.647	.665	.662	.662	.650	.687	.680	.667	.661	.686
Cheese.....	do.....	.398	.425	.414	.441	.401	.429	.356	.369	.407	.436
Milk.....	Quart.....	.143	.160	.180	.180	.150	.150	.140	.154	.160	.160
Bread.....	Pound ¹.....	.100	.100	.100	.100	.100	.099	.093	.093	.099	.100
Flour.....	Pound.....	.064	.064	.068	.065	.065	.065	.070	.066	.068	.067
Corn meal.....	do.....	.068	.063	.063	.057	.058	.051	.077	.079	.060	.057
Rice.....	do.....	.147	.137	.140	.132	.137	.135	.134	.142	.135	.133
Potatoes.....	do.....	.034	.030	.036	.033	.036	.029	.032	.032	.039	.035
Onions.....	do.....	.048	.046	.048	.049	.045	.040	.042	.037	.050	.044
Beans, navy.....	do.....	.181	.171	.155	.148	.167	.154	.174	.170	.171	.164
Prunes.....	do.....	.176	.170	.157	.159	.181	.187	.182	.185	.193	.196
Raisins, seeded.....	do.....	.172	.167	.164	.161	.167	.176	.157	.159	.153	.163
Sugar.....	do.....	.110	.111	.110	.109	.110	.110	.110	.109	.106	.106
Coffee.....	do.....	.288	.287	.311	.339	.272	.276	.339	.342	.304	.308
Tea.....	do.....	.751	.708	.811	.839	.768	.792	.593	.594	.783	.814

Article.	Unit.	Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	Pound..	\$0.302	\$0.284	\$0.350	\$0.348	\$0.466	\$0.469	\$0.567	\$0.564
Round steak.....	do.....	.290	.275	.346	.348	.471	.474	.531	.528
Rib roast.....	do.....	.250	.237	.319	.316	.377	.387	.398	.391
Chuck roast.....	do.....	.223	.209	.273	.271	.328	.338	.363	.366
Plate beef.....	do.....	.175	.168	.239	.241	.234	.238	.....	.....
Pork chops.....	do.....	.410	.374	.492	.468	.459	.454	.495	.460
Bacon, sliced.....	do.....	.556	.550	.592	.625	.537	.540	.612	.599
Ham, sliced.....	do.....	.511	.517	.510	.514	.407	.463	.606	.605
Lard.....	do.....	.333	.333	.334	.329	.347	.346	.346	.347
Lamb.....	do.....	.274	.279	.339	.350	.356	.375	.375	.392
Hens.....	do.....	.309	.292	.450	.400	.425	.430	.439	.439
Salmon, canned.....	do.....	.365	.374	.263	.266	.347	.360	.339	.346
Eggs, strictly fresh.....	Dozen.....	.535	.627	.597	.683	.744	.915	.819	.969
Eggs, storage.....	do.....	.....	.470	.....	.580	.....	.572	.....	.559
Butter.....	Pound.....	.616	.643	.650	.671	.682	.698	.619	.643
Cheese.....	do.....	.371	.396	.389	.420	.383	.392	.372	.376
Milk.....	Quart.....	.128	.130	.150	.175	.158	.177	.143	.160
Bread.....	Pound ¹.....	.088	.088	.096	.....	.097	.097	.104	.102
Flour.....	Pound.....	.063	.062	.068	.069	.072	.071	.069	.068
Corn meal.....	do.....	.058	.053	.065	.064	.081	.078	.078	.081
Rice.....	do.....	.141	.142	.130	.127	.147	.146	.140	.143
Potatoes.....	do.....	.026	.022	.045	.045	.042	.042	.039	.035
Onions.....	do.....	.032	.024	.050	.047	.052	.049	.051	.047
Beans, navy.....	do.....	.154	.142	.174	.172	.171	.165	.176	.168
Prunes.....	do.....	.176	.170	.202	.202	.196	.180	.202	.199
Raisins, seeded.....	do.....	.148	.151	.181	.192	.151	.151	.156	.159
Sugar.....	do.....	.106	.110	.107	.108	.103	.104	.103	.109
Coffee.....	do.....	.311	.312	.278	.289	.299	.305	.332	.337
Tea.....	do.....	.532	.564	.640	.650	.593	.586	.618	.621

¹ Baked weight.

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

Article.	Unit.	Norfolk, Va.		Omaha Nebr.		Peoria, Ill.		Portland, Me.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	Pound..	\$0.505	\$0.482	\$0.371	\$0.368	\$0.360	\$0.353	\$0.589	\$0.569
Round steak.....	do.....	.463	.441	.355	.349	.349	.335	.501	.496
Rib roast.....	do.....	.408	.389	.288	.283	.266	.263	.352	.335
Chuck roast.....	do.....	.335	.310	.252	.252	.246	.236	.305	.298
Plate beef.....	do.....	.238	.235	.192	.183	.193	.196	.....	.....
Pork chops.....	do.....	.483	.462	.407	.378	.414	.374	.496	.468
Bacon, sliced.....	do.....	.609	.620	.600	.604	.571	.587	.566	.549
Ham, sliced.....	do.....	.456	.459	.550	.554	.532	.547	.550	.547
Lard.....	do.....	.366	.372	.350	.345	.346	.343	.349	.350
Lamb.....	do.....	.442	.386	.327	.312	.318	.368	.359	.362
Hens.....	do.....	.458	.434	.322	.312	.315	.326	.445	.442
Salmon, canned.....	do.....	.308	.303	.304	.304	.304	.305	.299	.300
Eggs, strictly fresh.....	Dozen.....	.634	.673	.544	.671	.556	.638	.786	.880
Eggs, storage.....	do.....	.....	.580	.....	.553	.....	.525	.....	.570
Butter.....	Pound..	.640	.660	.634	.652	.612	.647	.659	.671
Cheese.....	do.....	.339	.408	.401	.419	.416	.447	.373	.385
Milk.....	Quart.....	.215	.180	.148	.148	.107	.119	.143	.157
Bread.....	Pound ¹.....	.099	.099	.100	.100	.100	.100	.100	.100
Flour.....	Pound..	.071	.071	.064	.063	.068	.069	.068	.067
Corn meal.....	do.....	.063	.062	.058	.056	.065	.064	.071	.071
Rice.....	do.....	.147	.150	.148	.149	.143	.142	.134	.139
Potatoes.....	do.....	.045	.041	.032	.027	.031	.027	.032	.032
Onions.....	do.....	.061	.052	.043	.038	.051	.043	.043	.039
Beans, navy.....	do.....	.186	.182	.156	.150	.175	.161	.171	.163
Prunes.....	do.....	.198	.206	.172	.190	.184	.199	.183	.183
Raisins, seeded.....	do.....	.173	.166	.168	.181	.163	.161	.149	.150
Sugar.....	do.....	.107	.107	.110	.110	.108	.110	.104	.107
Coffee.....	do.....	.326	.334	.318	.338	.272	.273	.317	.314
Tea.....	do.....	.782	.773	.689	.703	.661	.667	.623	.622
		Portland, Oreg.		Providence, R.I.		Richmond, Va.		Rochester, N. Y.	
Sirloin steak.....	do.....	\$0.323	\$0.319	\$0.656	\$0.652	\$0.453	\$0.449	\$0.399	\$0.378
Round steak.....	do.....	.312	.312	.545	.544	.426	.420	.383	.362
Rib roast.....	do.....	.288	.288	.428	.430	.348	.349	.326	.307
Chuck roast.....	do.....	.231	.233	.392	.388	.326	.313	.313	.294
Plate beef.....	do.....	.180	.180	.....	.....	.262	.252	.238	.223
Pork chops.....	do.....	.468	.444	.513	.501	.466	.463	.445	.432
Bacon, sliced.....	do.....	.572	.579	.543	.541	.582	.581	.516	.513
Ham, sliced.....	do.....	.525	.531	.612	.609	.478	.503	.512	.517
Lard.....	do.....	.352	.352	.353	.348	.352	.354	.343	.345
Lamb.....	do.....	.329	.328	.396	.405	.413	.433	.355	.341
Hens.....	do.....	.362	.369	.452	.462	.419	.409	.423	.443
Salmon, canned.....	do.....	.368	.365	.303	.341	.245	.250	.305	.306
Eggs, strictly fresh.....	Dozen.....	.668	.731	.783	.902	.587	.648	.715	.779
Eggs, storage.....	do.....	.....	.578	.....	.552	.....	.571	.....	.523
Butter.....	Pound..	.701	.699	.628	.639	.654	.678	.612	.632
Cheese.....	do.....	.420	.451	.353	.368	.385	.407	.361	.371
Milk.....	Quart.....	.150	.155	.158	.165	.157	.157	.145	.150
Bread.....	Pound ¹.....	.100	.100	.100	.100	.100	.100	.100	.100
Flour.....	Pound..	.066	.067	.069	.067	.068	.069	.061	.066
Corn meal.....	do.....	.076	.075	.073	.070	.062	.061	.067	.065
Rice.....	do.....	.141	.140	.135	.139	.151	.146	.144	.142
Potatoes.....	do.....	.032	.028	.038	.037	.047	.040	.034	.029
Onions.....	do.....	.039	.033	.040	.040	.058	.054	.042	.033
Beans, navy.....	do.....	.163	.152	.174	.167	.185	.181	.150	.151
Prunes.....	do.....	.147	.146	.190	.202	.173	.186	.201	.205
Raisins, seeded.....	do.....	.148	.148	.149	.152	.147	.154	.148	.151
Sugar.....	do.....	.106	.106	.108	.108	.098	.109	.102	.106
Coffee.....	do.....	.322	.317	.342	.351	.288	.296	.296	.300
Tea.....	do.....	.618	.632	.628	.622	.752	.768	.582	.581

¹ Baked weight.

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

Article.	Unit.	St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
		Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.	Oct. 15, 1918.	Nov. 15, 1918.
Sirloin steak.....	Pound..	\$0.343	\$0.327	\$0.335	\$0.340	\$0.459	\$0.456	\$0.341	\$0.344
Round steak.....	do....	.301	.300	.328	.323	.421	.414	.335	.337
Rib roast.....	do....	.263	.266	.282	.274	.367	.365	.270	.268
Chuck roast.....	do....	.244	.238	.257	.243	.322	.314	.244	.241
Plate beef.....	do....	.187	.183	.189	.188	.224	.228	.202	.203
Pork chops.....	do....	.404	.372	.467	.454	.468	.449	.422	.400
Bacon, sliced.....	do....	.547	.561	.586	.593	.583	.594	.541	.561
Ham, sliced.....	do....	.480	.523	.505	.518	.578	.565	.502	.513
Lard.....	do....	.341	.344	.366	.355	.344	.349	.342	.340
Lamb.....	do....	.276	.271	.326	.308	.382	.385	.336	.342
Hens.....	do....	.320	.314	.350	.358	.444	.446	.308	.310
Salmon, canned.....	do....	.299	.303	.341	.329	.312	.316	.291	.300
Eggs, strictly fresh.....	Dozen..	.529	.629	.609	.713	.661	.689	.581	.656
Eggs, storage.....	do....	.....	.488	.....	.549	.....	.553	.....	.552
Butter.....	Pound..	.629	.647	.665	.653	.573	.613	.653	.686
Cheese.....	do....	.395	.393	.396	.432	.358	.368	.403	.425
Milk.....	Quart..	.128	.128	.125	.120	.140	.150	.134	.142
Bread.....	Pound 1	.085	.086	.102	.101	.100	.100	.100	.100
Flour.....	Pound..	.066	.064	.058	.057	.070	.069	.066	.066
Corn meal.....	do....	.065	.061	.078	.075	.084	.078	.069	.068
Rice.....	do....	.140	.141	.145	.140	.137	.136	.144	.143
Potatoes.....	do....	.023	.022	.024	.022	.035	.031	.031	.029
Onions.....	do....	.032	.029	.034	.035	.048	.044	.039	.037
Beans, navy.....	do....	.159	.142	.169	.163	.170	.167	.158	.153
Prunes.....	do....	.185	.187	.153	.160	.172	.176	.170	.169
Raisins, seeded.....	do....	.148	.146	.145	.146	.148	.149	.172	.173
Sugar.....	do....	.110	.110	.110	.111	.108	.108	.108	.110
Coffee.....	do....	.315	.315	.356	.352	.328	.333	.303	.301
Tea.....	do....	.592	.593	.640	.649	.612	.618	.763	.791

1 Baked weight.

RELATIVE PRICES, JANUARY, 1913, TO DECEMBER, 1918.

To afford an opportunity to compare average yearly retail prices of food back over a period of years, relative prices, computed from data collected by the United States Bureau of Labor Statistics, are given in the table following. In this table, the average price for 1913 is taken as the basis, or 100. These relative prices are simply percentages in which comparison is made with the average price in 1913.

Interpreted in dollars, and considering that a certain amount of food costs \$1, bought at the average retail prices for the year 1913, when bought at the average prices for the succeeding years the same quantity would have cost \$1.02 in 1914, \$1.01 in 1915, \$1.14 in 1916, \$1.46 in 1917, and \$1.68 in 1918.

Prices for chuck roast and plate boiling beef have been computed and relatives for these articles added to this table since it was published in the MONTHLY REVIEW for February, 1918. The relatives for bread, which were published in the MONTHLY REVIEW for April, 1918, have been also added.

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, JANUARY, 1913, TO DECEMBER, 1918.

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Milk.	Bread.	Flour.	Corn meal.	Potatoes.	Sugar.	All articles combined.		
1913.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
1914.....	102	106	103	104	104	105	102	102	99	102	102	94	100	112	104	105	108	108	108	102	
1915.....	101	103	101	101	100	96	100	97	93	97	99	93	99	126	126	108	89	120	101	101	
1916.....	108	110	107	108	106	108	106	109	111	111	109	103	102	130	135	113	155	146	114	114	
1917.....	124	130	126	131	130	152	152	142	175	134	139	127	125	164	211	192	253	169	146	146	
1918.....	153	165	155	166	170	186	196	178	211	177	165	151	156	172	203	227	188	176	168	168	
1913: Av. for year	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January.....	94	92	95	93	91	89	94	93	97	95	108	107	100	100	100	99	91	106	98	98	98
February.....	94	93	95	93	92	90	95	94	98	97	91	108	100	100	100	98	90	100	97	97	97
March.....	97	96	98	98	96	97	97	97	99	100	77	108	100	100	100	98	88	99	97	97	97
April.....	101	99	101	101	101	103	99	99	100	104	73	106	100	100	100	98	87	98	98	98	98
May.....	101	100	101	101	100	100	100	99	100	104	76	94	99	100	101	98	91	97	97	97	97
June.....	102	101	102	102	100	99	101	102	100	103	81	92	99	100	101	98	104	97	98	98	98
July.....	104	104	102	103	115	103	104	104	101	102	87	91	99	100	101	98	110	100	100	100	100
August.....	104	104	102	103	101	104	105	106	102	101	96	92	99	100	100	100	109	102	101	101	101
September.....	103	104	101	103	102	108	104	104	102	101	109	98	100	100	100	102	110	104	102	102	102
October.....	101	104	101	103	102	107	103	102	101	100	121	130	101	100	99	103	106	101	104	104	104
November.....	100	102	100	102	102	102	101	100	101	97	144	101	102	99	104	107	99	105	105	105	105
December.....	99	101	100	101	102	97	99	99	100	98	138	104	102	100	99	104	106	98	104	104	104
1914: Av. for year	102	106	103	104	104	105	102	102	99	102	102	94	100	112	104	105	108	108	102	102	102
January.....	99	102	100	102	102	99	98	98	100	100	126	104	102	110	98	104	108	95	104	104	104
February.....	99	102	101	102	102	100	98	99	99	104	106	93	102	110	99	103	108	94	101	101	101
March.....	100	103	101	102	102	100	99	99	99	105	90	92	101	110	99	103	107	93	99	99	99
April.....	100	103	102	103	102	103	99	99	99	108	74	86	100	110	99	103	105	91	97	97	97
May.....	102	105	102	103	103	106	99	99	98	106	77	85	100	110	99	103	112	91	98	98	98
June.....	103	106	103	105	104	103	100	100	97	103	82	88	100	110	99	103	132	93	99	99	99
July.....	106	109	105	106	104	106	101	103	97	103	87	89	100	110	98	103	155	95	102	102	102
August.....	110	113	108	109	107	119	107	108	99	104	96	94	100	112	106	105	111	143	107	107	107
September.....	107	110	105	108	107	113	108	108	99	103	107	98	100	114	113	109	105	145	107	107	107
October.....	103	107	104	106	105	110	106	105	98	100	113	98	101	114	111	109	89	132	105	105	105
November.....	100	105	103	104	105	104	104	102	99	97	131	103	101	114	112	109	83	113	105	105	105
December.....	101	103	101	103	103	93	103	100	97	94	139	103	101	116	113	107	84	110	105	105	105
1915: Av. for year	101	103	101	101	100	96	100	97	93	97	99	93	99	126	126	108	89	120	101	101	101
January.....	100	102	101	101	102	88	101	98	97	95	129	101	101	120	124	109	85	110	103	103	103
February.....	98	100	100	99	101	85	99	96	97	97	98	98	100	126	138	110	84	118	101	101	101
March.....	97	99	99	98	100	85	98	95	96	99	74	94	99	126	136	110	82	120	98	98	98
April.....	99	100	100	98	100	94	98	94	96	100	75	94	99	126	137	109	86	122	99	99	99
May.....	101	103	101	101	101	99	98	95	96	101	76	91	99	128	139	109	89	124	100	100	100
June.....	103	105	103	103	101	98	99	97	95	98	78	90	98	126	130	109	89	126	100	100	100

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July.....	105	107	104	103	101	100	100	98	93	97	81	90	98	126	125	108	85	127	100
August.....	104	107	104	103	101	103	100	98	89	97	88	88	99	126	124	108	82	123	100
September.....	104	106	103	102	101	107	100	97	88	97	101	88	99	124	117	108	79	118	101
October.....	103	104	102	101	99	110	101	99	91	97	117	92	100	124	113	108	94	111	103
November.....	101	102	101	99	98	99	101	100	92	95	133	95	100	124	113	107	97	119	104
December.....	99	101	100	99	98	87	101	100	92	95	135	101	100	124	114	107	106	124	105
1916: Av. for year	108	110	107	108	106	108	106	109	111	111	109	103	102	130	135	113	155	146	114
January.....	101	102	101	99	99	89	101	109	111	101	123	100	100	124	120	107	136	123	107
February.....	101	102	102	118	100	92	101	110	112	104	101	99	100	124	125	108	141	125	106
March.....	104	104	104	103	102	104	103	113	115	107	82	105	100	128	120	107	140	137	107
April.....	106	108	106	106	105	107	104	116	119	111	79	108	99	124	119	108	138	145	109
May.....	109	112	110	109	107	109	105	118	127	113	82	97	99	124	119	108	140	156	109
June.....	113	117	113	113	111	110	107	119	130	114	87	95	99	124	117	108	167	158	112
July.....	113	116	112	112	109	111	107	120	132	113	93	93	100	124	116	108	134	160	111
August.....	112	115	111	110	107	116	108	121	133	112	105	95	101	128	134	110	141	155	113
September.....	111	115	110	110	107	125	110	123	141	113	120	102	102	136	148	113	161	141	118
October.....	108	111	108	108	106	118	110	123	147	114	132	109	105	144	155	117	165	149	121
November.....	106	108	106	107	106	111	111	123	162	112	149	114	109	150	174	126	198	157	126
December.....	106	107	106	106	106	106	110	123	164	112	154	118	112	140	167	131	198	151	123
1917: Av. for year	124	130	126	131	130	152	152	142	175	134	139	127	125	164	211	192	253	169	143
January.....	109	111	109	109	108	113	110	114	136	118	158	118	112	140	171	132	225	146	128
February.....	113	117	114	116	116	125	114	118	138	126	147	122	112	142	171	136	290	148	133
March.....	116	119	118	128	121	133	123	125	151	129	101	121	112	144	174	137	297	160	133
April.....	125	130	127	131	132	146	141	136	167	136	112	133	114	150	206	154	339	175	145
May.....	127	133	130	134	135	146	155	144	176	138	116	122	117	170	266	178	352	183	151
June.....	129	135	132	137	137	148	158	145	177	136	119	123	119	170	246	182	366	170	152
July.....	129	137	130	137	136	151	159	147	174	131	121	122	120	125	176	220	195	246	146
August.....	130	138	129	136	134	164	160	147	176	131	134	124	128	182	229	219	206	181	149
September.....	131	133	131	137	135	185	164	152	188	142	152	129	132	176	223	272	172	179	153
October.....	130	138	130	136	136	185	178	159	198	146	160	133	143	176	214	232	178	177	157
November.....	124	133	127	132	134	165	179	159	207	138	168	138	144	176	208	235	183	174	155
December.....	126	134	128	134	134	161	181	161	211	143	184	142	147	166	205	235	178	172	157
1918: Av. for year	153	165	155	166	170	186	196	178	211	177	165	151	156	172	203	227	188	176	168
January.....	129	137	130	138	142	163	180	162	208	154	195	148	151	166	200	233	188	173	160
February.....	131	141	133	142	146	160	179	163	209	170	177	151	151	166	200	233	188	193	161
March.....	133	143	135	145	150	161	181	164	210	128	144	144	151	168	200	240	147	167	154
April.....	144	155	148	159	164	170	183	166	209	123	123	132	148	172	200	237	129	165	154
May.....	157	170	161	174	181	175	187	170	208	178	123	133	148	174	200	233	129	165	158
June.....	168	182	169	184	188	177	191	173	206	177	123	133	146	174	203	223	171	165	162
July.....	166	181	168	182	185	180	194	181	206	178	142	137	149	174	203	223	229	167	167
August.....	163	178	165	177	179	201	200	180	209	181	155	141	153	174	206	227	229	169	171
September.....	164	178	165	178	181	220	208	193	213	185	170	155	161	174	206	230	229	175	178
October.....	161	175	163	174	178	216	214	193	216	183	186	170	166	172	203	227	206	193	181
November.....	159	173	162	172	175	206	216	195	216	185	215	174	173	172	203	217	194	196	183
December.....	159	171	161	171	174	197	217	198	216	180	235	190	176	172	203	213	188	196	187

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

The bureau's weighted index number of wholesale prices in representative markets of the United States registered a slight increase for November over the preceding month, standing at 206 as compared with 204 in October. Noticeable changes occurred in the groups of farm products and chemicals and drugs, the index numbers showing decreases from 223 to 219 and 204 to 201, respectively. On the other hand, food, etc., lumber and building materials, and miscellaneous articles showed increases from 199 to 203, 157 to 163, and 197 to 207, respectively. No changes occurred in the groups of cloths and clothing, fuel and lighting, metals and metal products, and house-furnishing goods.

Among important articles whose wholesale prices averaged higher in November than in October were flaxseed, barley, oats, rye, cattle, butter, cheese, coffee, eggs, lard, fresh beef, ham, mutton, milk, raw silk, bar iron, sulphur, turpentine, rosin, paper, and soap. Wheat, hides, tobacco, wheat flour, bacon, bananas, lamb, veal, rice, salt, sugar, tea, onions and vinegar were practically unchanged in price; while cotton, corn, hogs, sheep, peanuts, poultry, lemons, oranges, corn meal, cabbage, potatoes, harness leather, zinc, glycerin, linseed oil, cottonseed meal, and jute were cheaper than in October.

During the period from November, 1917, to November, 1918, the index number of farm products increased from 211 to 219, that of food commodities from 184 to 203, and that of cloths and clothing from 202 to 253. In the same period the index number of fuel and lighting increased from 151 to 182, that of metals and metal products from 173 to 186, and that of lumber and building materials from 135 to 163. In the group of house-furnishing goods, including a very limited number of articles, the increase was from 175 to 233, and in the miscellaneous group, including such important articles as cottonseed meal, jute, lubricating oil, newsprint paper, rubber, soap, starch, plug tobacco, and wood pulp, the increase was from 165 to 207. On the contrary, the index number of chemicals and drugs decreased from 232 to 201 in the same period.

INDEX NUMBERS OF WHOLESALE PRICES, 1913, TO NOVEMBER, 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	126	99	140	105	107	110
February	109	114	114	102	132	100	144	105	106	111
March	111	115	117	104	141	101	147	105	109	114
April	114	117	119	105	147	102	150	109	111	116
May	116	119	122	104	151	102	153	109	114	118
June	116	119	123	105	149	101	150	109	121	118
July	118	121	126	105	145	98	143	111	122	119
August	126	128	128	107	145	100	132	111	123	123
September	131	134	131	110	148	100	132	111	126	127
October	136	140	137	128	151	101	135	114	132	133
November	145	150	146	150	160	103	142	115	135	143
December	141	146	155	163	185	105	143	115	136	146
1917.										
Average for year	188	177	181	169	208	124	185	155	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	188
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	229	191	251	178	183	156	207	227	191	202
September	236	199	251	179	183	158	206	233	195	207
October	223	199	253	179	186	157	204	233	197	204
November ¹	219	203	253	182	186	163	201	233	207	206

¹Preliminary.

**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 the latest available figures, as published in the British Labor Gazette. All of these are shown on the July, 1914, base in the source 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.

[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 popu- lation (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	131	.....	169	¹ 232	.....
May.....	155	132	.....	171	.....	.....
June.....	159	132	.....	172	.....	.....
July.....	167	.....	.....	175	.....	.....
August.....	171	.....	.....	181	.....	.....
September.....	178	.....	.....	179	.....	.....

¹ Quarter beginning that month.

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: 22 foodstuffs (variable); 20 towns (variable). Weighted.	Sweden: 21 articles; 44 towns. Weighted.
1914.						
July.....	100	100	¹ 100	100	100	100
October.....	112	104	² 107	102	.....	107
1915.						
January.....	118	108	114	111	.....	³ 113
April.....	124	113	123	113	.....	³ 121
July.....	132 ³	120	131	112	.....	³ 124
October.....	140	127	128	112	⁴ 129	³ 128
1916.						
January.....	145	133	135	116	.....	³ 130
April.....	149	132	142	118	.....	³ 134
July.....	161	132	150	119	⁵ 161	³ 142
October.....	168	132	158	120	⁴ 166	³ 152
1917.						
January.....	187	144	165	127	.....	160
February.....	189	154	165	126	.....	166
March.....	192	161	169	126	183	170
April.....	194	164	170	127	.....	175
May.....	198	167	180	128	197	175
June.....	202	171	184	128	.....	175
July.....	204	172	188	127	.....	177
August.....	202	178	.....	127	214	181
September.....	206	188	.....	129	.....	187
October.....	197	.....	.....	130	.....	192
November.....	206	.....	.....	130	230	200
December.....	205	.....	.....	132	.....	212
1918.						
January.....	206	190	.....	133	241	221
February.....	208	221	.....	134	.....	227
March.....	207	247	.....	134	253	235
April.....	206	236	.....	137	.....	247
May.....	207	.....	.....	139	264	258
June.....	208	239	.....	139	271	261
July.....	210	.....	.....	139	279	268
August.....	218	.....	.....	141	284	284
September.....	216	.....	.....	.....	.....	.....

¹ January–July.² August–December.³ Quarter beginning that month.⁴ November.⁵ August.

PRICES DURING THE CIVIL WAR AND PRESENT WAR COMPARED.

A bulletin entitled "A Comparison of Prices During the Civil War and Present War" has recently been issued by the price section of the division of planning and statistics of the War Industries Board. The Civil War data, it is stated, are taken from "Gold, Prices, and Wages under the Greenback Standard," by Wesley C. Mitchell (Berkeley, 1908), and are based on quotations published in the well-known "Aldrich Report" of 1893.¹ The information on wholesale prices during the present war has been taken, in most instances, from the records of the United States Bureau of Labor Statistics.

¹ Wholesale Prices, Wages and Transportation. Report by Mr. Aldrich from the Committee on Finance, Mar. 3, 1893. (S. Rep. No. 1394, 52d Cong., 2d sess., Part II.)

Numerous charts, showing both group and single commodity price curves, are used to assist in comparing prices in the two periods. The first, or basic, chart shows wholesale price fluctuations for 92 commodities, by quarters, from January, 1861, to October, 1866, and for the same articles or the nearest equivalents, by quarters, from January, 1914, to July, 1918. It is explained in the bulletin that "the actual quotations of all the commodities (92 in number) for which the Aldrich Report gives approximately complete prices were reduced to relatives on the basis, prices in 1860 equal 100. For averages, medians were chosen instead of arithmetic means, since the arithmetic means were much affected by the exceptionally high prices of a few southern products, notably cotton, which had a relative price of 1410 in July, 1864. The median for any date is the middle point in the scale of relative prices arranged in order from lowest to highest. That is, one-half of the 92 commodities on a given date have relative prices equal to or lower than the median, and the other half have relative prices equal to or higher than the median."

To make the comparison as accurate as possible, each of the 92 commodities quoted during the Civil War was matched with the same article or the nearest equivalent for which prices during the present war were obtainable. These articles are alcohol, alum, barley, beans, bichromate of potash, brick, brimstone, butter, butts, candles, carpets, cement, cheese, clover seed, coal (anthracite and bituminous), copper (ingot and sheet), copperas, corn, cotton, cotton textiles, crackers, eggs, fish, flaxseed, flour (rye and wheat), fruit (dried apples, currants, and raisins), furniture (chairs and tables), hides, iron wire, lard, lead, leather, lime, linseed oil, lumber (chestnut, hemlock, pine, and spruce), matches, meal, meat animals (beeves, hogs, and sheep), meat (beef, mutton, and pork), mercury, milk, molasses, muriatic acid, oats, opium, oxide of zinc, pails, pine boards, powder, putty, potatoes, quicksilver, quinine, rice, rope, rubber, rye, salt, ship biscuit, shovels, silk, soap, soda, starch (culinary and laundry), sugar, sugar of lead, sulphuric acid, tallow, tar, timothy seed, tobacco (leaf and wrappers), tubs, turpentine, wheat, window glass, wood screws, and wool.

MEDIANS OF RELATIVE PRICES OF COMMODITIES AT WHOLESALE DURING THE CIVIL WAR AND THE PRESENT WAR.

Year and month.	All commodities.		Foods.		Building materials.		Chemicals.	
	Civil War.	Present war.	Civil War.	Present war.	Civil War.	Present war.	Civil War.	Present war.
Number of commodities	92	92	36	36	19	19	15	15
1860 and 1913:								
January	100	100	100	100	100	100	100	100
April	100	100	100	100	100	100	100	100
July	100	100	98	100	100	100	100	100
October	100	100	99	100	100	100	100	100
1861 and 1914:								
January	100	100	98	100	100	100	100	100
April	96	100	94	100	100	100	100	100
July	96	100	88	100	100	100	100	100
October	97	100	91	105	102	100	100	100
1862 and 1915:								
January	100	100	99	107	106	100	117	100
April	100	100	96	105	112	100	107	100
July	100	102	93	105	107	100	109	115
October	111	102	100	102	116	100	125	126
1863 and 1916:								
January	125	114	116	110	133	104	130	138
April	137	115	125	113	143	109	142	187
July	134	119	117	117	139	110	142	187
October	135	130	125	127	145	117	133	156
1864 and 1917:								
January	156	142	152	142	160	124	153	152
April	169	157	161	162	177	137	161	175
July	194	169	184	169	189	152	189	177
October	200	174	194	193	200	152	200	196
1865 and 1918:								
January	216	178	232	188	200	161	222	192
April	190	182	189	199	196	172	182	197
July	158	187	156	194	171	181	153	193
October	175	.....	170	.....	200	.....	170	.....
1866 and 1919:								
January	182	.....	168	.....	200	.....	182	.....
April	173	.....	162	.....	200	.....	189	.....
July	181	.....	178	.....	200	.....	167	.....
October	173	.....	161	.....	199	.....	164	.....

The quotations were in each case reduced to relatives on the basis of prices in the year before the war began, medians being used as averages. Dates were also matched by putting July, 1861 (the beginning of real hostilities), against July, 1914, the month in which the present war began. Of the 92 commodities all but 22 could be classified into three subgroups, viz, foods, building materials, and chemicals. Medians of relative prices for each of these groups were constructed for comparison with the median for all commodities.

It is pointed out in the bulletin that the comparison shows a striking similarity in the movement of prices in the two great wars on the whole, the chief differences being (1) that the rise began earlier in the Civil War; (2) that it was more pronounced than in the present war, and (3) that the fall began earlier. Thus the figures in the preceding table show that the median rose from 96 to 100 in the first six months of the Civil War (July, 1861, to January, 1862), while in the present war the median did not change from its prewar level until the end of a year of hostilities. In the Civil War the highest point touched was 216 in January, 1865, which is 38 points higher than the median for the corresponding month in the present war

(January, 1918). In April, 1865 (the month in which Lee surrendered) the median had dropped 26 points below the high level of January, while, so far as is known, no general decline in prices preceded the German surrender in the autumn of 1918. These differences are on the whole, however, less striking than the general similarity of the price movements.

Relative prices of each of the 92 commodities at wholesale during the Civil War and the present war are shown in comparison in the final chapter of the bulletin. Twenty-nine of the 92 series of Civil War relatives represent articles for which averages of two or more quotations were used, and the remaining 63 series represent articles for which but one quotation was available. It is stated that "the Civil War prices have been matched by averages and single quotations as nearly identical as possible during the present war. The actual price for January, 1860 (or, in some few cases, that for July or October, or the averages for the months available during the year), was taken as a base equal to 100 in figuring the relative prices for the Civil War period, and the average actual price from July 1, 1913, to June 30, 1914, as a base equal to 100 in figuring relative prices for the present war. These two bases were taken as fair representations of the respective prewar prices."

Charts have been made for a few of the most important commodities. They show that the price fluctuations in the two wars present great diversity. In some articles the Civil War rise was vastly greater than the rise during the present war. Anthracite coal is in this class, and in a lesser degree lead pipe, sugar, and hogs. Still more striking is the case of cotton; but cotton is not charted, because the Civil War rise was so extreme that a chart drawn to the scale used here would be over a yard high. Other articles, on the contrary, such as wheat wool, and hides have risen higher during the present war than they did in the sixties. Finally there are a number of cases in which the course followed by prices was not notably different—for example, iron wire, cattle, corn, copper, bituminous coal, and potatoes.

In discussing the economic factors affecting prices during the two wars the bulletin states that the dominant factor in the Civil War period was the existence of an incontrovertible paper-money standard. Following the suspension of specie payments by the Treasury at the end of 1861 and the issue of legal-tender "greenbacks" early in 1862 commodity prices fluctuated with the premium on gold, with a certain lag in time and with certain aberrations, due chiefly to the scarcity of southern staples. It is pointed out that if commodity prices are reduced to the gold basis the American price level is brought into close correspondence with contemporary European price movements.

It would be going too far, the bulletin states, to say that momentary changes have had no effect on prices during the present war. "But certainly they have played no such dominant causative rôle as in 1862-1865. On the other hand, interruptions in the supply

of commodities and changes in demand have exercised a much greater influence than they did in the Civil War. In 1862-1865 the United States was the only great Nation at war; the Southern States were the only great producing area whose output disappeared from the markets of the world. In 1914-1918 all the great nations became involved in the struggle, as well as several of the minor ones. Moreover, the countries at war mobilized their economic resources for military purposes with a thoroughness never attempted before. There resulted an extraordinary intensification in the demand for articles needed to sustain military efficiency and civilian morale, as well as a ruthless reduction in the supply of other articles. These changes in demand and supply are the outstanding feature in commodity markets in 1914-1918, as the depreciation in the gold value of the dollar was in 1862-1865."

A chart showing relative fluctuations of wholesale prices, retail prices, and wages from 1860 to 1872 is included in the bulletin.

MEASURES TO COMBAT HIGH COST OF LIVING IN MINING CENTERS IN FRANCE.¹

The minister of labor requested the prefects in all mining centers to furnish him with data relative to measures taken to combat the increased cost of living, either by the mine laborers in establishing canteens, cooperative restaurants, or stores, by the establishment of municipal communal stores, or by other measures taken to supply provisions at cost.

The answers received have been segregated and reported under three heads: Private initiative, municipal action, and provincial action. From this report the following is selected as sufficient to show the extent and results of such measures.

PRIVATE INITIATIVE.

The same causes for repeated increases in prices of provisions existed in mining centers as were to be found in other localities, namely, difficulties in transportation, shortage of labor, and speculation. In one district a committee consisting of members from the militant socialist party, the chamber of labor, and directors of consumers' cooperative associations, finding that the prices of meats were subject to rapid and disturbing increase, undertook the establishment of common butchers' stalls in Saint-Étienne. The undertaking was beset by many difficulties, and was obliged to meet strong opposition on the part of meat dealers and other intermediaries. Eleven stalls were opened. To operate these a cooperative association was formed under the title of "The Social Welfare." This association did a business amounting to 1,400,000 francs (\$270,200) for the first year of its operation, and its profits were 60,000 francs (\$11,580) during 5 months. The success of this association has led to the

¹ Bulletin du Ministère du Travail, Paris, June, July, 1918.

opening of "laborers' " butcher shops in several other localities. In order to be in a position to favor the opening of new shops "The Social Welfare" association has formed a union. It aims to establish a yard reserved for the use of all affiliating associations in interning cattle for future slaughtering. This rapid development of butcher shops is due to the methodical organization which has been observed in their extension. The establishment of these shops has limited the tendency toward exorbitant prices, and it would seem that for the public in general they may become the best safeguard against speculation.

The growth of cooperative societies existing at the outbreak of the war is quite noticeable, and an impetus has been given this method of distribution of supplies. Among the new associations for the sale of groceries and general merchandise the "Union of Mine Workers in Saint-Étienne" shows a great development. In the last six months the number of families being supplied increased from 8,000 to 13,000, representing at present 50,000 persons.

Other associations have preferred to organize as "associations for purchase and distribution." Such associations of workers have in some instances been organized in mines and metallurgical establishments and among railroad workers. In the Province of Loire 50 such organizations with a membership of 185,000 have been formed, and employers have placed in operation 25 organizations supplying approximately 150,000 laborers.

Some associations do not limit sales to members. In Saint-Étienne four such associations sell food of prime necessity to the general public. From September, 1917, to July, 1918, these sold 250 tonnes¹ of potatoes and between February and July, 1918, sold butter, cheese, and eggs to the value of 120,000 francs (\$23,160).

Cooperative restaurants in Firminy serve 550 midday meals to mobilized workers at a price of 10 francs (\$1.93) per week, another serves 600 meals at prices ranging from 2 to 3 francs (38.6 to 57.9 cents) per meal, wine included.

Land has been placed at the disposition of the extramunicipal commission at Saint-Étienne by the hospitals, mining companies, and private owners. Nearly 100 hectares of arable land have been parceled out and planted in potatoes. A crop of 900 tonnes was gathered. Of the 12,000 miners in the Montchanin basin 8,000 are members of cooperative associations. In Epinac 6 miners' cooperatives furnish food supplies to the families of 1,100 members—about 4,500 persons. Each of these sells at prices below those charged by regular dealers. In some cases prices represent a saving of 10 to 15 per cent, 25 per cent, or even 30 per cent. The Épinac societies did a business of 100,000 francs (\$19,300) in June, 1918. Some asso-

¹ A tonne equals 2,204 pounds.

ciations extend their business so as to include the sale of wine and shoes, and to supervise the sale of clothing. At Creusot meat is sold at 2 to 3 cents per pound less than at private stores, and a saving of about 9 per cent on the price of bread is effected.

In Isère a union composed of 400 miners' families made a profit during the year ending June 30, 1917, of 10,000 francs (\$1,930) on sales amounting to 315,000 francs (\$60,795). Their annual sales before the war amounted to about 80,000 francs (\$15,440). These are but a few of the laborers' associations which have developed or which have had a noticeable increase in membership and patronage under the stress of war conditions.

Employers in mining districts have found many ways to aid their employees in securing supplies at reduced prices. Among these may be mentioned the following: By purchasing the supplies; furnishing a place for which goods may be sold; financing the undertaking; and transporting merchandise for the society at a nominal charge.

In one district the "society of mine owners" has opened a store for the sale of goods to such of their employees as are not members of any cooperative association, upon presentation of an employee's card. The saving in this instance amounts to 25 or 30 per cent.

In Isère a stock society has been established by 60 of the employing establishments. The capital is 525,000 francs (\$101,325). Stock is issued in shares of 500 francs (\$96.50) each, and each establishment subscribes to one share for each 10 persons employed by it. A general store has been opened, and certain stores in Grenoble have agreed to make a reduction of 5 to 10 per cent on purchases made by the employees of these establishments.

Canteens and lodging houses have also been opened by employers, in which employees may find accommodations at reasonable prices. Lodging, heat, and board are furnished in one case at 70 francs (\$13.51) per month, in another case at 120 francs (\$23.16) per month.

MUNICIPAL ACTION.

Municipal action is limited to a few important cities. Their activities have been confined mainly to purchase of supplies from producers, these supplies being subsequently sold at cost either directly to the population, or to cooperative associations and to merchants under agreement to sell at fixed prices.

The city of Millau organized a commission representing the municipal council, the chamber of commerce, and the workmen's federation, which established a store for the sale of flour. From April to June it sold 120 tonnes of potatoes and quantities of other provisions directly to consumers. Other municipalities have organized supply stores, one of which furnished 500 tonnes of potatoes, 180 tonnes of rice, and 60 tonnes of dried vegetables directly to consumers, and 110 tonnes of

oil to merchants, cooperative associations, restaurants, etc.; while another sold 2,217 quintals¹ of various provisions, 3,120 dozen eggs, and some butter, oil, and condensed milk. The city of Montbrison sells more than 4,408 pounds of meat per week. Roanne has opened four butcher shops which sell meats at 7.5 to 9.6 cents less per pound than the prices charged by regular dealers. It has also opened four popular kitchens distributing for home consumption 1,200 to 1,500 portions per day, including a full meal, excepting bread and wine, at an average price of 29 cents.

PROVINCIAL ACTION.

An investigation at Saint-Étienne showed that in the metallurgical industry alone more than 5,000 persons, men and women, were taking their meals at places other than their homes. Board (two meals per day) was costing them 120 to 125 francs (\$23.16 to \$24.13) per month. A committee organized "popular lodging and boarding" houses. At present (July, 1918) four of these are in operation furnishing meals at 28 to 37 cents each, bread and wine not included. These restaurants have served 542,079 meals à la carte and 454,441 at fixed prices. The "Women's Shelter," with the aid of the American Y. W. C. A., serves meals to women at 33 cents. Five hundred beds have been installed. In one dormitory reserved to miners, lodging is offered at \$2.41 per month; three others containing 135 beds are reserved for women, and range in price from 15 to 20 francs (\$2.90 to \$3.86) per month.

A commission of control is charged with the duty of supervising hygienic conditions and fixing rents conditioned on furnishings. Of 617 lodgings, a reduction in rents has been obtained in 396 equal to 34,872 francs (\$6,730.30) per year, and a better supply of linen and better care were secured in 152 others. Barracks loaned by the war office have been divided between mine and metal workers.

From February, 1918, to July, 1918, the provincial food supply office distributed 10,000 hectoliters (264,170 gallons) of wine, and 1,200 tonnes of various kinds of food. About 700 distributing stores in the province sell at prices fixed by the prefects. The province has opened credit to four new cooperative associations amounting to 60,000 francs (\$11,580).

The reports received from the prefects indicate that cooperative action on the part of consumers in the purchase and distribution of supplies has met with gratifying results, and that there is an increased tendency to form organizations of this character. There is generally a marked decrease in prices on the goods furnished by the association and also on goods sold by the local merchants, who found that their trade was menaced and therefore used greater discretion in raising the prices of their wares.

¹ A quintal equals 220.4 pounds.

PRICE REGULATIONS IN URUGUAY.

According to a report from the United States consul at Montevideo,¹ the Uruguayan National Subsistence Board is continuing its activities in connection with price regulation and conservation of supplies. The consul states, under date of September 25, 1918, that a decree of July 17, 1918, established new maximum prices for olive oils, leaving prices of cottonseed and peanut oils as fixed on June 6, 1918; and that as respects the ultimate cost to the consumer, the maximum prices authorized on July 17 are based on an increase of 15 to 20 centesimos (15.51 to 20.68 cents) per 1-kilo (2.2 pounds) can of Spanish, Italian, and French oils. The consul adds that the subsistence board at the same time stated that it was very desirable that stocks of oil be placed on the market.

A decree of May 20, 1918, fixed the wholesale price of meat at 8.2 cents per pound for first-class and 7.7 cents per pound for second-class meat delivered to retail butchers in half or quarter carcasses without head, etc. These basic prices were raised, according to the consul, by a decree of July 26 to 9.6 and 9.1 cents, respectively, for carcasses with head, etc., and 9.15 and 8.7 cents per pound for carcasses without head., etc. An increase of a fraction under 1 cent per pound was likewise authorized for retail prices, the rise being due, it is stated, to the higher price of cattle and the drop in value of hides. It appears that the maximum price of meat was again raised by a decree of September 21, 1918, which fixed the following maximum rates for sales by wholesalers to retail butchers: Extra grade ("flor" or prime, not mentioned in earlier decrees), 11.5 cents; first grade, 10.55 cents; and second grade, 9.4 cents per pound, no distinction being made between carcasses with or without head and other parts. Maximum retail prices were again raised by a fraction under a cent a pound (exactly 0.938 cent) for the principal cuts of first and second class meat, and an additional cent was allowed for prime beef.

While meat prices have been climbing, those of eggs have fallen. The following maximum prices were established for eggs by decree of July 6, 1918: To wholesalers, 26.9 cents per dozen; wholesalers to retailers, 30 cents; retailers to public, 33.1 cents. Two decrees of July 26, 1918, and August 27, 1918, successively lowered these maximum prices to the following: 22.7, 25.85, and 28.95; and 14.5, 17.6, and 20.7 cents per dozen, respectively.

By a decree of August 27, 1918, the maximum prices of beef fat (special packing house, salting plant, or other manufacture, excepting so-called Palmitina) fixed on May 7, 1918, were increased throughout by 1.4 cents per pound, in view of the higher price of cattle and of containers.

¹ Data taken from Commerce Reports for Nov. 14, 1918 (p. 618), Washington, D. C.

The consul notes that all of the foregoing maximum prices apply to Montevideo and its immediate vicinity (*Departamento de la Capital*), and states that the subsistence board has fixed separate maximum prices for many products in different departments of the interior, based, as a rule, on the recommendations of reports of departmental commissions.

A decree of August 23, 1918, temporarily prohibited the exportation and reshipment of sugar except by special license. It is reported that the subsistence board in recommending this measure stated its belief that imports of sugar would fall off as a result of the embargo in Argentina, while the removal of import duties in Argentina would lead local importers to reexport the commodity.

A decree of August 27, 1918, prohibited the exportation of wood fuel, in view of its scarcity and high cost.

A decree of September 12, 1918, declared that export embargoes already in force or subsequently put in force do not include the articles required for their regular stores by vessels calling at Uruguayan ports. The question of determining the quantities of such articles required by vessels is left to the director general of customs.

Maximum prices for gasoline and kerosene were established by decrees of June 18, 1918, and July 5, 1918. A third decree of July 31 increased the maximum price allowed importers, whether selling to importers, retailers, or consumers, and established for such sales the following per case of two cans of approximately 5 gallons each: Gasoline, yellow label, \$7.81; gasoline, green label, \$6.88; kerosene, with faucet, \$5.69; kerosene, without faucet, \$5.64. This represented an increase of 26 cents per case for kerosene and 31 cents for gasoline. Prices allowed wholesalers selling to retailers were fixed (as previously) at the same level as for importers, the wholesaler's profit being confined to the 2 per cent discount given him by the importer. The decree of July 31, 1918, made no change in retail prices, which remained at \$4.14 per can for yellow label and \$3.62 per can and 78.3 cents per gallon for green label gasoline, and 62.6 cents per gallon for kerosene. It seems that the subsistence board considered it unnecessary to grant an increase to retailers in view of the higher profit realized on containers. However, a further decree of September 4, 1918, increased the maximum retail price for kerosene to 66.5 cents per gallon, and also authorized retailers to sell the case with faucet at \$6.20. The decree of September 4, 1918, made no change in maximum prices to be charged by importers and wholesalers.

FOOD CONTROL.

FOOD CONTROL IN GREAT BRITAIN.¹

LOCAL FOOD CONTROL COMMITTEES.

Orders issued by the British Food Controller on October 5, 1918, prescribe certain changes in the composition and powers of local food control committees, appointed by local civil authorities. These changes, which became effective November 18, are designed in particular to secure for such committees a wide and more direct representation of labor, women, and the cooperative movement. In the case of districts having a population at the last census of over 20,000 the maximum number of members who may be appointed on a committee was increased from 12 to 16. In other cases the maximum number, 12, was not changed. The minimum number was fixed at eight. Exception to these provisions is permitted (1) where sanction has already been given for a number in excess of the maximum prescribed by the new order, (2) where an increase in the number is necessary to allow of due representation on a joint committee from several districts, and (3) to permit of the appointment on certain committees of members of the Consumers' Council.

The new orders provide that committees of less than 12 members shall have at least two labor representatives, while larger committees shall have at least three such members. These are to be appointed after nomination by representative labor organizations, such as trades and labor councils, except in cases where for special reasons some other method of selection is desirable. The minimum number of woman members on a committee is fixed at two, and in appointing such members local authorities are asked to see that they are fully representative of women's interests. It is desired that working women should be represented, but the same person can not be counted for the purposes of the order both as a woman member and a labor representative. If a food dealer is appointed on a committee in a district in which cooperative societies have been established, at least one representative of the cooperative movement must also be appointed. Since the cooperative movement represents in a large degree the interests of the consumer the Food Controller asks local authorities to consider carefully the appointment of a duly accredited representative of the movement, even in cases where they have decided not to appoint any food dealer on the committee.

¹Compiled from recent numbers of the National Food Journal, the official organ of the British Ministry of Food.

WINTER MILK PRICES.

The maximum price that may be paid to a producer of milk sold at wholesale during the winter months from October 1, 1918, to April 30, 1919, has been fixed by the Food Controller at 2s. 3d. (54.8 cents) per gallon. The maximum retail price was fixed at 9d. (18.3 cents) per quart from October 1 to November 21, and 10d. (20.3 cents) per quart from November 22 to April 30, 1919. These prices are, however, subject to modification by local food committees. Recent investigations made into the cost of producing milk showed a considerable increase in all the expenses connected with dairy farming, with the exception of rents, with the probability of still further increases during the winter months. For this reason the above prices were authorized. The average margin of profit allowed to retailers remains at its former level, about 7½d. (15.2 cents) per gallon, under the new scale of prices.

CONTROL AND DISTRIBUTION OF BUTTER.

Since December, 1917, all butter coming into Great Britain has been imported by the Ministry of Food, importation on private account being prohibited. Competition in the markets abroad has thus been eliminated and full control of all supplies of imported butter secured. Where possible, contracts have been made for the exportable surplus in producing countries, notably Australia, New Zealand, and Argentina, while large quantities have been purchased in the United States through the Allied Provisions Export Committee in New York. The cost of all imports from the various countries is averaged and the butter is sold at a flat rate throughout Great Britain.

Distribution is effected by the butter and cheese import committee, London, a body constituted by the Food Controller for this purpose. Dealers employed as agents of the ministry and paid for their services accordingly distribute the butter to retailers. In practice the retailer is often served direct by the importer, while in other cases the wholesaler draws his supplies from a blender and not from an importer. This is done to suit the taste of his customers, and necessitates splitting the one commission allowed for wholesale distributing services. The butter and cheese import committee collects all money paid by importers for butter so distributed, allowing rebates to the trade distributors for their services in accordance with a scale laid down by the ministry.

Under a revised scheme announced in the National Food Journal of September 25, 1918, retailers were to receive supplies of butter at the rate of 2 ounces per week for each registered customer, instead of supplies based on their 1916 trade. For the purpose of this scheme the country was divided into areas, each having its own branch depot and in some cases its blending factories. In this way a con-

siderable economy of railway transportation and handling was to be effected. As far as possible, butter was to be shipped in bulk to each town in the depot area on one day, packages being consigned direct to the retailers. All trade distributors employed under the revised scheme were to be licensed as No. 1 suppliers, No. 2 suppliers, and blenders—these classifications corresponding approximately to importers, wholesalers, and blenders under the original scheme. Arrangements were also completed for bringing as much British-made butter as possible under the direct control of the Ministry of Food. Much of this is produced in small quantities by farmers and can not be brought into the pool, but rules were formulated by which these local supplies would be fully taken into account in allocating supplementary supplies of Government butter.

In the *National Food Journal* of October 9, 1918, it was announced that it had been found necessary to postpone the operation of the revised butter-distribution scheme from September 29 to October 14, and, therefore, it was impossible to give effect for the present to the arrangement by which all retail dealers would be enabled to receive supplies of butter and margarine in approximately the proportion of 2 ounces of butter and 4 ounces of margarine a week for each registered customer. The increase in the joint ration to 6 ounces came into force on September 29. The following issue (October 23) of the *National Food Journal* carried the announcement that in consequence of the requirements of tonnage for the transport of American troops and the resulting delays in the shipment of butter, the quantities available in the country and expected from abroad would not be sufficient to maintain the butter part of the fat ration at the figure of 2 ounces per person weekly. It had, therefore, been found necessary to reduce supplies to retailers to 4 ounces of margarine and 1 ounce of butter per week for each registered customer. This reduction became effective October 20. At the same time the consumption of table fats in catering establishments was reduced by one-sixth to correspond with the reduction in the general ration.

STATE CONTROL OF POTATOES.

Control of the whole potato crop of England and Wales was taken over by the Food Controller on November 1. The prices to be paid to growers are fixed by a commission appointed jointly by the Food Controller and the president of the Board of Agriculture and vary with the locality. As announced in the *National Food Journal* for November 13, 1918, the lowest prices are for the black lands in Cambridge and Hunts counties, where the price per ton, free on rail, to growers for grade 1 potatoes, including such varieties as "King Edward," "Golden Wonder," and "Langworthy" was fixed at

£5 15s. (\$27.98) during November and December. Prices in other localities for the same grade of potatoes vary from £6 (\$29.20) to £8 (\$38.93) per ton during November and December. Prices for grade 2 potatoes are in all cases 10s. (\$2.43) per ton less.

While the prices to producers will thus vary in different areas, the price to the public for the same grade of potato will be uniform throughout England and Wales. Until the end of December, the retail price for grade 1 potatoes was fixed at 1½d. (2.5 cents) per pound, and for grade 2 potatoes at 1d. (2 cents) per pound. For large retail sales lower prices will be fixed. It is stated that in January the retail prices will be raised to 1½d. (2.5 cents) per pound for grade 2 and 1½ d. (3 cents) per pound for grade 1 potatoes.

The potatoes will be supplied to retailers at a uniform price fixed conditionally at £9 (\$43.80) per ton for the first grade and £7 (\$34.07) per ton for the lower grade, delivered at the retailer's nearest railway station. The wholesalers will thus buy from the growers at varying prices and sell in all cases to retailers at a flat price. In doing so they will act as agents of the Ministry of Food at a commission which has been fixed provisionally at 7s. 6d. (\$1.83½) per ton, and they will account to the ministry for the difference between the price paid to the grower and the price obtained from the retailer, after deducting their commission and necessary charges. Both the retailer's buying price and the wholesaler's commission are subject to revision when further information as to actual costs has been obtained.

It is stated that, for purposes of administration, England and Wales have been divided into 11 deficit zones, which will need at some time or other during the year to import potatoes from elsewhere, and 12 surplus zones, which will export potatoes (particularly to London and the large industrial centers). In each surplus zone is a zonal committee under a zonal chairman, responsible for organizing the collection of potatoes for export to other areas. In each deficit zone is a potato control committee under the chairmanship of the food commissioner. These committees will be empowered to issue directions relating to the collections and disposal of potatoes—e. g., they may require potatoes of good keeping qualities to be held up until later in the year.

Subject to any restrictions imposed by the potato control committee or the zonal committee, growers will be permitted to sell potatoes to any registered wholesale dealer in their zone; but they may not sell to anyone else, except under license to be obtained from the food commissioner of their area.

EMPLOYMENT AND UNEMPLOYMENT.

FEDERAL EMPLOYMENT SERVICE AND DEMOBILIZATION OF THE ARMY AND OF WAR WORKERS.

With the signing of the armistice on November 11, the United States Employment Service, which since its organization early in 1918 has successfully met the demands of farm and of industry for labor necessary to carry on war production, entered upon the most important period of its existence. Hitherto the problem before the service has been comparatively simple—the filling, so far as possible, of demands from war production projects for allotments of workers generally numbered by the hundreds and thousands. In short, the demand has exceeded the supply. Now, however, with the curtailment of war contracts, labor must be intelligently directed back to normal occupations; there must be such coordination of the facilities of the Service and such cooperation between it and employers who are forced to dismiss workers and those who will need workers to develop their nonwar production, that unemployment will be reduced to a minimum or, if unavoidable, will be of the shortest possible duration. This problem the Employment Service is meeting, first, by perfecting its labor clearance machinery in every State with the thought not only of placing men in jobs but of placing them in jobs for which they are fitted either by reason of their prewar experience or the skill they have acquired in doing essentially war work, and second, by appealing to employers to notify the Employment Service of their labor needs and to work through its agencies instead of pursuing the policy of hiring and firing without regard for their own or their employees' interests. It is only through having advance information of the easing off of war industrial operations that the Employment Service can adequately devote its facilities to relocation of war workers.

Then there is the problem, presenting possibly greater difficulties, of directing into suitable employment the soldiers and sailors who are returning from overseas. With the cooperation of the national welfare organizations, the Government agencies interested in demobilization, and local community organizations of all kinds, the United States Employment Service is establishing a bureau for returning soldiers, sailors, and war workers in every city and town in the United States. It also has stationed qualified representatives in all Army camps and posts in this country to acquaint soldiers with

the facilities for assisting them to suitable employment after they leave camp.

The reconstruction program of the Employment Service links up all national and local efforts, both governmental and private, and centralizes in every community, through these local bureaus, all information as to proper openings in industry, commerce, and agriculture available to the Nation's fighters and war workers. It calls for assisting them to the best work the country can give them, the individual's qualifications being considered, and for sending as many men as possible to the farms.

Since most soldiers are expected to go to their home communities—and should be encouraged to do so—the task of aiding them in finding work is primarily a community responsibility, and the local bureaus enable its discharge.

The program has been approved and adopted by the Secretaries of the War, Navy, Interior, Commerce, Agriculture, and Labor Departments, sitting as the members of the Council of National Defense. In the same capacity, these cabinet officials most concerned with demobilization have taken steps to keep intact the field machinery of the defense council so that it may be utilized by the Department of Labor and its Employment Service in carrying out the replacement program. Their action brings to the Employment Service's aid a total of 184,000 local units, among them being the State councils, 4,000 community councils, and 16,000 women's organizations.

Representatives of the welfare and other private organizations and the Government agencies constitute a cooperative central board at Washington, through which a complete pooling of all efforts to assist soldiers and war workers to employment has been effected. Nathan A. Smyth, Assistant Director General of the United States Employment Service, is chairman. In addition to the welfare organizations the board includes such bodies as the American Council of Education, interested in having college students in the camps return to complete their courses; the General Staff of the Army; the Federal Board for Vocational Training, charged with training and placing crippled soldiers; and other agencies.

The State and community councils of the Council of National Defense have joined with the Federal directors and the community labor boards of the United States Employment Service in inviting the local bodies in every community to form a management board which will direct the activities of the local bureau for returning soldiers. The manager of each bureau will be a representative of the Employment Service and the forms and records of the Service will be used. The Service's clearance system also will be utilized to enable interstate and intercommunity exchanges of information as to employment openings.

The agents of the welfare organizations in the Army camps will assist the representatives of the Employment Service in advising soldiers as to employment seeking and their agents on homebound transports will perform the same service. The local units of these organizations are being instructed not to do any placing in their communities but to work through the local community bureau for returning soldiers.

WORK OF THE COMMUNITY LABOR BOARDS.

The task of placing released war workers and the thousands in the Army and Navy who will seek employment upon discharge has been assigned primarily to the community labor boards,¹ which are peculiarly fitted for this great work. Upon them rests the responsibility of organizing the bureaus for returning soldiers and sailors. Each community labor board is composed of a chairman representing the Employment Service, and of a representative each of labor and management chosen by their local organizations, and on several of the boards there are also two woman members representing woman workers and employers of women. There are approximately 1,600 of these boards throughout the country. In the following letter the Secretary of Labor has directed a message to the members of these community labor boards, calling upon them to respond to the demand of the hour in providing suitable employment for the thousands of demobilized soldiers and sailors and the army of industrial workers:

To the Members of the Community Labor Boards:

I trust sincerely that no member of a community labor board will fail to appreciate that the cessation of hostilities brings new opportunities for service and imposes new and important duties.

The country now faces the obligation to return to suitable employment those whom under the stress of war it has induced to enter its service in the field or in the factory. Upon the manner in which that obligation will be fulfilled depends in very large measure the well-being of the people for many years to come, as well as the vindication of those principles of justice which animated us in the pursuits of war.

There is no instrumentality at the Government's command so well equipped to help in the process of transition from war to peace as the community labor boards, and at no time since the beginning of the war has the need of such services been so urgent or the duty imposed upon those capable of performing them so imperative.

Therefore, I confidently appeal to each of you to continue at your post until the last unit of our forces overseas shall have been brought back to appropriate pursuits of peace and the last man to be withdrawn from war service shall have been given an opportunity of employment for which he is fitted to serve.

The demands of these days are perhaps even greater because more difficult to fulfill than the high call of duty in war. We must be true to ourselves and to our faith and discharge the problems that are pressing upon us. Much depends upon the members of the community labor boards in the fulfillment of our task.

W. B. WILSON,
Secretary of Labor.

¹ See MONTHLY LABOR REVIEW for August, 1918 (p. 64).

The essential points of the program adopted by the Employment Service are here given in excerpts from a full outline printed in the United States Employment Service Bulletin for December 10, 1918:

I. GENERAL DESCRIPTION.

1. *Purpose.*—To establish in every community, from the small town to the largest city, a bureau where the returning soldier or sailor may ascertain what employment is open for him.

2. *Agencies concerned in meeting problem.*—In every community there are many bodies, such as churches, lodges, and local branches of national women's organizations, and such bodies as the Red Cross, Y. M. C. A., National Catholic War Council, Jewish Welfare Board, Salvation Army, American Federation of Labor, the War Camp Community Service, draft boards, and others, which are preparing to find employment for the returning soldiers and sailors. Unless coordinated the work of these organizations will overlap with corresponding loss in efficiency.

The United States Employment Service is the official governmental organization charged with the duty of helping secure positions for returning soldiers and sailors, as well as war workers and others. It has community labor boards, composed of one representative of employers, one representative of labor, and one representative of the Employment Service throughout the country, over 1,580 in number. It also has some 850 offices scattered throughout the country and has volunteer agents in other places.

With the approval of the Secretaries of War, Navy, Agriculture, Interior, Commerce, and Labor, sitting together as the Council of National Defense, the United States Employment Service, with the assistance of the State councils of defense and their community councils, has undertaken to organize in every city and town throughout the country a bureau for returning soldiers and sailors.

3. *General method of operation.*—The returning soldier or sailor may call personally at the bureau, but frequently will call upon some one of the cooperating agencies. It is not necessary that application for work by these men should be made at any one particular place.

It is, however, necessary that so far as possible all information as to positions open should be centered in one office and there kept strictly up to date. Such information will thus be a common pool on which all cooperating agencies will be able to draw. Cooperating agencies will register at this central office all opportunities for employment which come to their attention.

Employers should be urged as a patriotic duty to register their opportunities for employment at the central bureau, with specifications as to types and kinds of men wanted and other necessary details. They should keep the bureau informed as such positions are filled or as new jobs are open. The full resources of the bureau will be open without charge to any returning soldier or sailor, regardless of where he first makes application.

The bureau should use all means at its disposal to furnish returning soldiers with correct information as to the various questions that will confront them or direct them to places where such information can be obtained.

4. *Returning war workers.*—While designed primarily for soldiers and sailors, in many communities the bureau will care also for those civilians who have left their peace-time jobs to take positions with concerns engaged in doing war work. In many places the facilities of the Employment Service are sufficient in themselves to care for the civilian workers; in other places it may become a community necessity that the central bureau should be for soldiers and sailors and war workers, so as to give assistance to civilians who have been engaged in war work and who can not find employment.

II. ORGANIZATION.

1. *Central.*—The responsibility for administrative control rests with the United States Employment Service, subject to the directions of the Secretary of Labor. The Employment Service has secured the assistance of a cooperating central committee for purposes of establishing general policies and of securing the full joint utilization of all of the available resources of the organizations represented.

In the United States Employment Service the work is controlled by the director general of the Service, the administrative details being handled by a national superintendent of bureaus for returning soldiers and sailors.

2. *In the State.*—The administrative unit of the United States Employment Service is the State, and the work in each State is under the control of the Federal Director of the United States Employment Service for the State. Each such director is responsible to the director general.

In dealing with the local bureaus the director general of the Employment Service will act through the Federal director of the State, leaving him large administrative discretion to meet the peculiar problems of the State.

Cooperating with the Federal director of the Employment Service for the State, the State council of defense will direct the activities of its community councils in assisting the work of the Employment Service.

3. *In the local community.*—The management of the bureau in each city or town will be supervised by a board of management composed of representatives of the community labor board, wherever such a board exists and of the community council of defense, of the local branch of each organization represented on the central committee and other local organizations, a representative of labor and other representative citizens. The officers of such a board will be selected by it.

Wherever its size makes it advisable, such board of management should appoint a small executive committee and vest in it such powers as may be necessary for prompt and effective action.

In charge of each bureau will be a bureau manager, who will be selected by the board of management. Such manager will be sworn into the Federal service as a special agent of the United States Employment Service of the Department of Labor. * * *

4. *Duties of boards of management.*—*a.* To secure a suitable office and equipment. *b.* To provide a bureau manager. *c.* To secure necessary volunteer assistants to the bureau manager. *d.* Finding jobs. *e.* Directing applicants to bureau. *f.* Clearance with other communities.

5. *Powers of the board of management.*—The board of management has the authority requisite to perform the aforesaid duties. The fundamental principle of organization is that as much local responsibility be recognized in the local board of management as is consistent with uniformity of operation in conformity with general principles approved by the central board at Washington and with the operation of each unit as a part of the general clearance system of the United States Employment Service.

6. *Powers and duties of the bureau manager.*—The bureau manager should be in executive control of the office of the local bureau and should usually be the administrative officer of the board of management. It will be his responsibility to see that the following work is done promptly and effectively in the office:

- a.* That all opportunities for workers are registered and classified.
- b.* That such information as to positions is at all times available for any returning soldier or sailor, through whatsoever agency the application of such soldier or sailor may come.
- c.* That a record be kept of all applications for positions.
- d.* That the forms of the United States Employment Service be used (except that similar forms bearing the imprint of the local bureau and of the United States Employment Service are permissible).

- e.* That reports of the work of the office are made as required by the Federal Director of the United States Employment Service for the State.
- f.* That every possible assistance be given to every applicant for work.
- g.* That the work of the bureau be conducted in close cooperation with that of Employment Service offices in the community.
- h.* That all applicants be treated with painstaking, intelligent interest, in order that the best service may be given.

III. HOW TO PROCEED TO ORGANIZE BUREAUS.

Where there is a community labor board, it will, under instructions from the Federal Director for the State, proceed at once to invite the cooperation of the community council of defense in calling a meeting of all organizations which are interested in cooperating in the movement. Such meeting should be presided over by the chairman of the community labor board, who will explain the purpose of the organization. At such meeting a representative board of management should be chosen.

IV. OPERATIONS.

The following are extracts from the report adopted by the central committee in Washington relating to cooperation between the Government and the associated organizations:

It should be established as the guiding principle of administration:

1. That when and in so far as the bureaus shall be functioning the separate cooperating agencies should refrain from doing any direct placing, and in that respect should limit themselves to registering the applicants, and either directing them to the headquarters of the bureau or acting as intermediaries between the applicants and the bureau for the purpose of placement.
2. That they should register all opportunities that are brought to their attention with the bureau, so that it shall be enabled to conduct the clearance.
3. That the United States Employment Service shall be used to centralize the records and to clear jobs and applications within the community and with other communities.
4. That where the bureaus function properly the separate agencies shall not, as a general practice, seek jobs for individuals unless with the approval of the local board, but shall pool with the bureau all jobs available, and direct all men who come to them to the bureau to be placed by it.

The bureau manager should maintain a classified file of opportunities available and of applicants, and should see that all possible channels for obtaining information as to opportunities are made use of, and that both files are kept alive and up to date.

He should promptly advise the Federal director for the State of opportunities that can not be filled locally, and also of applicants for work who can not find it in the locality.

Each bureau office should bear a sign reading: "Bureau for Returning Soldiers and Sailors ('and War Workers' may be added at the discretion of the committee) Conducted by the U. S. Employment Service and Cooperating Agencies." The board may list the names of the cooperating agencies, should they consider it desirable.

The United States Employment Service has appointed an agent to be stationed in every demobilization camp, who will there be assisted by the camp representative of the affiliated organization. Each such agent will, so far as possible, telegraph the Federal director for the State the probable time of arrival of discharged soldiers as soon as definite information is available.

The Federal director will inform the bureaus affected. As far as possible this information will contain the number of men who have signified their intention to call

on the local bureau for assistance and a general statement of the predominating kinds of work desired.

He will mail a card for each man who has signified a desire for assistance, stating the kind of work wanted. These cards should be classified and filed by the manager of the bureau, and, where possible, matched up with available opportunities before the man calls at the bureau, so that on arrival he can be at once referred to a definite opening.

The War Department and the War Industries Board have called upon the Department of Labor to gather up-to-date information on labor conditions throughout the country and the community labor boards are responding to this request in weekly reports on forms provided for the purpose. The information is being obtained by means of personal contact and telephonic communication with employers, plant managers, employment managers, labor organizations, and commercial bodies, as well as local United States Employment Service offices. Approximately 100 industries are being covered in this way. The establishment of a community labor board division by each State director of employment has been authorized.

While fears have been expressed by some that an era of unemployment must necessarily be the result of a sudden change from a war to a peace footing, the War Department has made it known that it will not release soldiers faster than they can be absorbed, and will not cancel contracts without previously consulting with the War Industries Board and the Department of Labor. The War Industries Board has removed all restrictions upon building operations and other construction work¹ and this will stimulate the resumption and extension of peace-time industrial activities. It is estimated by the United States Shipping Board that 200,000 jobs in shipyards and merchant crews will be available to the released soldiers in the next few months. Mr. Hurley, chairman of the board, has said:

We are only now beginning our program of ship construction. * * * The demand for the expert worker will be greater than ever, because the large part of the task of completing our program of ship construction is still before us. More riveters, ship fitters, chippers, caulkers, bolters-up, riggers, draftsmen, and foremen and executives will be needed after the war.

Large numbers of war workers have already been placed in other positions by the Employment Service, as for instance, 1,700 men released from an airplane plant at Dayton, 11,000 men released from nitrate plants at Cincinnati and Toledo, and 6,000 men released at Camp Jackson, Columbia, S. C.

The entire matter of readjustment of the Department of Labor from a war to a peace basis has been referred by the Secretary to a committee consisting of the heads of various branches of the Department.

¹ See pages 38 and 39 of this issue.

WORK OF THE EMPLOYMENT MANAGEMENT SECTION OF THE WAR INDUSTRIES BOARD.

One of the war emergency activities of the United States Government, which is of great significance for its possible future influence upon the relations of employers and employees, is the training of employment managers, as carried on by the Employment Management Section of the War Industries Board. This work, which began on March 26, 1918, at the University of Rochester, has now involved the completion of 14 courses, each of six weeks' length. In all, counting those shortly to finish, 360 students have been graduated. It has been noticeable that the quality of persons applying for admission has steadily improved. At the close of the year, when plans for the continuation of the work on a permanent basis are about to be carried out, the section has inquiries from 500 firms in behalf of representatives whom they desire to send for training.

The courses given at Rochester were in cooperation with the University of Rochester, Prof. Meyer Jacobstein, Mr. S. Park Harman, Mr. Henry T. Noyes, and Miss Mary B. Gilson taking part in instruction. At Boston four courses have been given, with the cooperation of Harvard University, the Massachusetts Institute of Technology, and Boston University. In these courses Prof. Roy W. Kelly and Prof. Ralph B. Wilson have had the greatest responsibility. In New York City two courses have been given, one at Columbia University, with Mr. Ordway Tead and Prof. H. C. Metcalf in charge, and one at the Bureau of Municipal Research, with Prof. H. C. Metcalf and Dr. W. E. Mosher participating. At Pittsburgh the Carnegie Institute of Technology, with the aid of Pittsburgh University, gave a course. At Berkeley, Cal., the University of California conducted a very successful course, with Prof. Ira B. Cross and Dr. Ray A. Sigsbee cooperating. At Seattle, the University of Washington gave a course with Dean S. I. Miller, Mr. Boris Emmet, and Miss Miriam Besley instructing. At Chicago, Northwestern University has given a course with Mr. Gilbert L. Campbell and Prof. H. G. Hayes as director and assistant director, respectively. A preliminary course for persons lacking in industrial experience has been given at Cleveland, in cooperation with the Chamber of Commerce and Case School of Applied Science, and with Miss Mildred Chadsey as director. A second is now being given at Chicago by the School of Civics and Philanthropy with Miss Mollie Ray Carroll directing.

The Washington office, which has supervised the movement, selected the students, granted certificates, supplied aids for instruction, supervised the placing of such graduates as were not attached to firms, and brought the subject of employment management before the employers of the country, by a general campaign of publicity,

has been under the direction of Capt. Boyd Fisher, Ord. U. S. A. It has numbered on its staff Prof. Edward D. Jones, in charge of course materials, Mr. B. G. Whitmore, dean of students, Mrs. Eleanor DeGolyer, registrar, and Mr. William C. Lengel, director of publicity.

The general policies of the Washington office have been laid down by a joint committee, including Col. Walter Dill Scott, Maj. W. F. Tully, Dr. E. M. Hopkins, Capt. Boyd Fisher, and Prof. Edward D. Jones of the War Department, Mr. L. McH. Howe of the Navy Department, Mr. Charles T. Clayton, Mr. George Bell, and Miss Mary Van Kleeck of the Department of Labor, Mr. James Inglis (chairman), and Mr. P. E. Foerderer of the War Industries Board, Mr. Morris L. Cooke and Mr. D. L. Hoopingarner of the Emergency Fleet Corporation, and Mr. Henry T. Noyes of Art-in-Buttons, Rochester, New York.

At the conclusion of the first course at Rochester, on May 9, 10, and 11, there was held a convention on Employment Management, at which over 600 delegates were present. At this convention prominent employers, officers of labor organizations, and Government officials united to emphasize the importance of the work of the personnel officer in industry. At this time the National Association of Employment Managers was launched.

The anticipation of the Government officers, who have been associated with this movement, that the introduction into industry of first-class practice in employment, industrial education, wage setting, maintenance of work standards, protection of health, and welfare promotion generally will inaugurate a new era in the history of the labor problem seems in a fair way to be realized.

The response of employers has been cordial. Among the corporations which have sent representatives may be mentioned the American Woolen Co., the Barrett Co., the Bell Telephone Co., Carnegie Steel Co., Commonwealth Steel Co., Dayton-Wright Airplane Co., Henry Disston & Sons, the Du Pont Co. (two representatives), Eastman Kodak Co., the Emergency Fleet Corporation (41 representatives), the General Electric Co., International Harvester Co. (4 representatives), Jones & Laughlin Steel Co. (2 representatives), Loose-Wiles Biscuit Co., Morris & Co., Packard Motor Car Co., the Pennsylvania Railroad Co., Remington Arms Co., Semet-Solvay Co., Singer Manufacturing Co., the Texas Co. (7 representatives), and the United States Rubber Co.

From the side of organized labor the response has been equally encouraging. Practically every course has contained union officers. The Federation of Labor of New York State, at its recent convention, indorsed the courses and urged its officers to enter them for the purpose of obtaining a systematic review of shop management.

Employment management is an effort to collect, organize, and distribute accurate information. It is an effort to substitute measure-

ment for guesswork. It is a movement to bring the beneficent developments of science (as, for example, medical science) and of community activity within the reach of the common man, through the agency of the business organization with which he is connected. It is an effort to remedy evils before they become so bad that nothing but industrial warfare seems adequate, rather than wait to compose the warring parties afterward by arbitration and conciliation. It is a possible field of business activity in which employer and employee may both be active, and in which it is to be hoped that they will become acquainted, will learn to work together, will learn what is right in the class aspirations of the other, will see the problems the other is called upon to face, and may find a way toward a new harmony which public opinion so anxiously awaits.

CONSERVATION OF BOY POWER IN GREAT BRITAIN AND THE UNITED STATES.

BY GEORGE W. EDWARDS, PH. D.

Ever-seeking solution yet never solved is the problem of the boy in industry. Wherever a community has passed through that convulsive stage which we call the "industrial revolution" the boy worker appears as a by-product of the new factory system. Because the problem is common to all industrialized nations, a study of the attempts of each to solve it is of value to the others. Especially interesting to the United States should be a review of the development of Great Britain's plans for conserving her boy power during the war and in the reconstruction period.

For years generation upon generation of adolescent workers came and went with but scant attention from the Government. True, the free school, the juvenile court, and the charity hospital were public institutions which influenced somewhat the transition from youth to manhood. However, the past decade has seen a complete change in the attitude of the Government toward young workers helping to maintain England's place in the industrial world. The new view was well reflected in the Labor Exchanges Act (1909), which established a national system of employment bureaus.¹ Regulations made under this statute by the Board of Trade provided for local juvenile advisory committees composed of employers, trade-unionists, and persons having knowledge of children. Since jurisdiction over this placement work and vocational guidance for juveniles was thus given to one national body, the Board of Trade, another, the Board of Education, was then spurred to action. Accordingly, in 1910, the latter, under the Choice of Employments Act, was authorized to assist boys and girls in the choice of suitable employment by collecting and communicating information and giving advice.

Under one or the other of these laws, the Labor Exchanges Act or the Choice of Employments Act, about 130 juvenile advisory committees had been created by the beginning of 1917. Of this number the Board of Education continues to control nearly one-half, while the remainder has passed out of the hands of the Board of Trade to the Ministry of Labor, a department organized to meet the war emergency.² Another recent administrative change has been to constitute the advisory boards, under the Choice of Employments Act, subcommittees of the local committees on education. So efficient has been the work of the subcommittees, even during these trying times, and so firm is the confidence in their future usefulness, that an official report on juvenile education and employment after the war recommends the establishing of 150 new committees.³

¹ Bul. 206, U. S. Bureau of Labor Statistics: British system of labor exchanges, pp. 57, 58.

² Great Britain. Board of Trade Labour Gazette, February, 1917, p. 48.

³ Great Britain. Final report of departmental committee on juvenile education in relation to employment after the war. [Cd. 8512.] London, 1917, p. 28.

The first task of a juvenile employment committee is to secure particulars as to the educational and physical qualifications of school boys who seek work. These are obtained from the principal of the school, who fills out a juvenile employment card calling, among other items, for information on the boy's general character, health, and scholarship.¹

The next step is to gather accurate data on the opportunities for boys in the various trades, conditions of work, qualifications required, and the chances for advancement. Personal canvass or circular letters to employers elicit this information.²

With the facts from both sides thus collected, the boy and the job are then brought together. The employment officer calls parent and boy for consultation. He may immediately find an opening suited to the abilities of the boy, or urge a continuation of schooling, or possibly offer the young applicant a temporary job until a more permanent and more promising opportunity arises. Responsibility, however, does not end with placement, for supervision is also provided. To carry on this function, voluntary workers are organized into "after-care" or supervising committees, affiliated either with the schools or with the juvenile-placement bureaus.

So, when the Great War came, England possessed a machinery for enrolling, placing, and supervising the young workers who were to help in maintaining a steady stream of shells, ammunition, guns, and other supplies for the front. However, this juvenile organization has undergone a severe strain in the four years just passed, for the new economic and social order since 1914 has greatly intensified the seriousness of the boy problem.

In the first place, opportunities to enter skilled employment became fewer. Training, with its undoubted value for the future, was sacrificed to the crying need of increased production in the present. The apprenticeship system which for years had been carefully and painfully developed quickly yielded to a demand for hands, whether young or old, on repetitive operations. In fact, the few remaining occupations which continued to offer prospects of learning a trade did not appeal to boys, who were more attracted by the immediate opportunities for earning high wages in war plants, even though the work was monotonous and uneducative.

Moreover, as these youngsters often worked at the side of adults, little distinction was made in the hours of employment. Even the Home Office felt justified in sanctioning the employment of boys for 67½ hours a week.³ In fact, one medical examiner testified that

¹ Great Britain. Board of Trade Labour Gazette, February, 1917, p. 48; see form reprinted in Bul. 206 of the U. S. Bureau of Labor Statistics, p. 61.

² Bul. 206 of the U. S. Bureau of Labor Statistics, pp. 39, 40.

³ Great Britain. Ministry of Munitions. Health of Munition Workers Committee. Final report: Industrial health and efficiency. [Cd. 9065.] London, 1918.

boys whose average age did not exceed 15 years had time sheets which showed a week of 68½ hours.

Night shifts added further to the physical strain of these weary hours. While the effect is to some extent modified by the better food which a larger family income now enables them to obtain, conditions such as now exist, continued over a period not of days but of months, undoubtedly leave their mark, and will be revealed later either in definite disease or impaired physical vigor.

Considering these tendencies in addition to the lack of parental control when the father has left for the front and the mother for a munition plant, the collapse of social and educational agencies, and, finally, the general excitement of the times, the increase of juvenile delinquency is readily explained.¹

Notwithstanding the gravity of this boy problem, England has gradually worked out a solution. The forces of employment offices have been augmented and special care has been given to the juvenile division. This becomes evident from the following figures on the activities of the labor exchanges during the past four years:

OPERATIONS OF BRITISH LABOR EXCHANGES, 1914 TO 1917.¹

Department and year.	Number of registrations.	Number of individuals registered.	Number of vacancies notified.	Number of vacancies filled.	Number of individuals found work.
Men:					
1914.....	2,316,042	1,381,694	909,383	706,458	507,538
1915.....	1,512,335	1,072,213	1,004,970	716,816	577,206
1916.....	1,229,171	954,172	909,721	636,095	539,564
1917.....	1,167,864	938,725	906,627	623,830	539,396
Women:					
1914.....	707,071	476,926	312,344	232,935	160,145
1915.....	1,232,891	920,635	493,515	385,101	306,192
1916.....	1,921,826	1,501,260	846,196	695,631	615,920
1917.....	1,873,706	1,487,728	814,735	706,034	636,269
Boys:					
1914.....	211,898	157,093	157,278	103,280	85,068
1915.....	194,864	150,559	161,459	106,716	90,237
1916.....	241,314	184,443	148,091	116,900	100,053
1917.....	265,668	204,283	146,103	120,525	105,547
Girls:					
1914.....	207,441	148,310	100,019	74,236	61,320
1915.....	246,047	183,393	137,702	99,504	84,701
1916.....	266,378	203,909	145,010	108,609	95,869
1917.....	268,142	206,914	131,927	104,834	93,986
Total:					
1914.....	3,442,452	2,164,023	1,479,024	1,116,909	814,071
1915.....	3,186,137	2,326,803	1,797,646	1,308,137	1,058,336
1916.....	3,658,689	2,843,784	2,049,018	1,557,235	1,351,406
1917.....	3,575,380	2,837,650	2,199,442	1,555,223	1,375,198

¹ The Labour Gazette, London, February, 1918, p. 53.

² Total as given in source; the sum of the detail figures above is 1,999,392.

From this table it may be observed that in the year 1914 boys filled 9 per cent of all vacancies and girls 7 per cent. In 1917 the corresponding percentages were 8 and 7. Although there was thus a

¹ The Child, March, 1918, p. 266, and October, 1918, pp. 1-4; U. S. Children's Bureau Publication No. 39, series 5: Juvenile delinquency in warring countries, p. 7; Economic effects of the war upon women and children in Great Britain, publication of Carnegie Endowment for International Peace, pp. 146, 147; Manchester Guardian, June 6 and 20, 1918; Daily Express, June 7 and 11, 1918; Yorkshire Post, July 13, 1918; Daily Chronicle, July 17, 1918.

decrease of 1 per cent in the placement of boys, there was an increase of 17,245 in the actual numbers; the percentage of vacancies filled by girls was the same in 1917 as in 1914 but the number increased by 30,598. In the years 1916 and 1917 the percentages of vacancies filled were the same—8 per cent for boys and 7 per cent for girls—but 3,625 more places were filled by boys in 1917 than in the previous year, while 3,775 fewer places went to girls. It is also interesting to note that of the vacancies filled by boys in 1917, 24,800, or 20.6 per cent, represented their first jobs since leaving school. In the case of girls an even larger proportion, 28,835, or 27.5 per cent, went direct from school to job.

Though juvenile placement was being handled satisfactorily, the work of supervision and welfare proved quite difficult. Unfortunately the "after-care" or "follow-up" committees described above were seriously affected by the war. Even those members who did not leave for active military service assumed urgent duties in Red Cross, hospital, and other local war work.¹ However, welfare work has been continued to a large extent by the welfare section of the Ministry of Munitions created in January, 1916. This division has performed wonders in improving conditions in the four thousand "controlled" or national factories.²

A large and efficient corps of welfare officers appointed by the ministry inspected the factories, reported on conditions, and made recommendations to the employers. Following the advice of these inspectors, employers often installed canteens, washing facilities, first-aid arrangements and other improvements in the factory. However, these usually remained unused. Canteens were generally deserted, since boys preferred to carry their food from home; wash rooms were abused rather than used, for crumpled towels made excellent footballs and soap a convenient missile; while few boys would bother going to the first-aid kit for what they regarded as a mere cut. In order to supply the personal direction which was thus needed, some employers appointed special boys' welfare supervisors attached to the factories. The Ministry of Munitions has encouraged this movement by establishing a "panel" of suitable candidates of whom about 150 have been appointed during the past year. The majority of these are army officers who have been wounded and discharged from active service in the field.³

The welfare movement is being thoroughly organized among both employers and employees. The former have begun a boys' welfare association, which now counts as members the leading engineering firms of England.⁴ On the other hand, the boys themselves

¹ London Times, educational supplement, Sept. 19, 1918, p. 403.

² Great Britain. Ministry of Munitions. Health of Munition Workers Committee. Final report: Industrial health and efficiency. See also *The Child*, November, 1917, p. 77.

³ London Times, educational supplement, Sept. 26, 1918, p. 10.

⁴ *Idem*, Sept. 19, 1918, p. 398.

have started a "Royal Ordnance Factories Trade Lads' Association."¹ The charter members of this body come mainly from the big Woolwich arsenal which employs over 10,000 boys.

Nor is the development of welfare work confined to boys in the trades, for several movements wide in scope are being pushed. Chief among these have been the cadet corps, initiated in 1916 under the National Association of Cadet Training. Recently the Prince of Wales was appointed colonel-in-chief of the corps for the United Kingdom, and at present an extension of the activities of this body is being given serious consideration by the Government. Apparently this movement is conflicting to some extent with the Boy Scouts Association, for recently in a letter to the London Times Sir Robert Baden-Powell, the venerable scout leader, bitterly scored the cadets.² He took especial exception to the plans of formal military training which unquestionably seems to be a feature of the new movement.³ However, it is quite possible that some compromise will be effected whereby physical training rather than military drill will be emphasized, and also the cadets will include only those over 16 years of age.

To coordinate all these clubs, cadet corps, and other welfare units, the Home Office last spring established a "juvenile organizations committee." This national body hopes to render aid, even to the extent of financial assistance, to local organizations which accept affiliation. This movement thus to centralize social work under the Home Office has drawn forth serious criticism, for some believe that such activities belong rather under the Board of Education, which has already developed a network of local committees throughout the Kingdom.⁴

Of broader significance are the present plans for restoring the health and education of England's youth after the ravages of the past four years. Parliament is considering the formation of a separate ministry of health to unify all agencies engaged in public health service. The local authorities, apparently fearing the loss of their powers, are, as the Morning Post⁵ tells us, "extremely jealous of more Whitehall control." Perhaps the most important constructive act passed by Parliament during war time has been the education bill of Sir Herbert Fisher. This law with its many far-reaching features, including a national continuation-school plan, assures England a posterity whose efficiency will unquestionably be high.

The future significance of education is also fully appreciated by the Ministry of Reconstruction, which Parliament established in August, 1917, to carry out the task of demobilization and restora-

¹ London Times, educational supplement, June 6, 1918, p. 234.

² Idem, July 4, 1918, p. 284; see also July 11, pp. 293, 294, and Oct. 10, 1918, p. 436.

³ Idem, June 27, 1918, p. 265.

⁴ New Statesman, Mar. 2, 1918, p. 511.

⁵ Morning Post (London), Mar. 15, 1918.

tion.¹ Already a committee has reported on the subject of juvenile employment after the war, and plans for the coming readjustment are virtually completed.

Not alone in the halls of Parliament and in the offices of the several ministries are plans being discussed for promoting the welfare of England's youth, but everywhere throughout the realm people are awake to the needs of the future. The spirit of the times is reflected not so much in the formal official reports as in the current newspaper columns, where we read of parents anxious to obtain the advice and guidance of the public employment bureau in placing their children,² and of a mayor presiding at a public meeting of teachers in the city council chamber to discuss plans for reducing "blind-alley" jobs among juveniles.³ Organized labor also is on the watch; we hear of the Sheffield federated trades council passing a resolution which disapproved of the policy of the local educational authorities in releasing boys of 13 from school to enter the steel works.⁴ Another forward step was taken recently when the association of head masters of the London secondary schools joined with the city's advisory committee on juvenile employment in urging employers to recognize the school-leaving age as not lower than 16. The association hopes to win this point by refusing to assist to employment any boys below 16, and by systematically canvassing employers who hire juveniles.⁵

The unsatisfactory tendencies among English boy workers, as noted above, have not been so pronounced in the United States. One reason is that the general labor problem never became as acute as in England where a much higher percentage of the male population was drawn directly into military service. Besides, as the United States has been engaged in the war for but 18 months, the forces tending to weaken labor standards have had only a limited time in which to operate.

One organization which has aided materially in retaining the safeguards thrown around juvenile employment has been the United States Boys' Working Reserve. Established in May, 1917, it has been extended to almost every State in the Union. This body has enrolled, trained, placed, and supervised boys for service on the farms.

Profiting from the experiences of 1917, the Reserve has functioned with remarkable smoothness during the past season. In the spring thousands were enrolled and pledged for agricultural work. City high-school boys rendered valuable service on the farms, espe-

¹ Great Britain. Ministry of Reconstruction. Reconstruction problems. I. Aims of reconstruction, p. 14.

² London Times, educational supplement, June 13, 1918, p. 255.

³ Sheffield Daily Telegraph, July 26, 1918.

⁴ London Times, educational supplement, Sept. 19, 1918, p. 403.

⁵ Idem, June 27, 1918, p. 273.

cially those who were given a short, intensive training course. Though a considerable number of labor supply camps were established, most of the boys were placed on individual farms. Generally they were "followed up" by supervisors who saw to it that wages were made equitable, that the work was not overtaxing, and that the environment was satisfactory.

The Reserve has, this year, clearly demonstrated its economic and educational value. From the point of view of production, it has added considerably to the Nation's food supply by furnishing farmers with a dependable labor force. Even more important have been the larger educational aspects of the movement. It is aiding materially in clearing away the lack of understanding which has existed for many years between urban and rural communities. The thousands of city boys who have toiled on farms return to their homes with a better appreciation of the problems of rural life. Also, the Working Reserve has added a new dignity to labor by recognizing productive effort as national service.

While the activities of the Reserve have hitherto been confined almost exclusively to agriculture, the near future will probably behold their extension to other industries. Through the United States Employment Service, vocational counselors may soon be placed in the larger offices over the country. The general plan is quite similar to the English system described above.

The educational significance of the entire movement has been fully appreciated by those who direct the policies of the Reserve. This was made clear in September at a conference held in Washington and attended by representatives of 44 States. From the opening speech by the Secretary of Labor, the Hon. William B. Wilson, to the closing statement of the national director of the Reserve, Mr. William E. Hall, the educational as well as the economic value of boy labor was stressed. In fact, the conferees, although well acquainted with the pressing need for labor, voted to retain the age limit of 16 years as a requirement for membership in the Boys' Working Reserve. Thus it seeks to cooperate with the school in urging boys under 16 years of age to remain at their studies. It indorses fully the statement of the British Ministry of Reconstruction that "education is not only ultimately bound up with social and industrial reconstruction, but it is in a sense the most important and enduring side of postwar policy; for upon the extent to which the country develops and makes use of the innate abilities of its citizens, its future prosperity and happiness depend."¹

¹ Great Britain. Ministry of Reconstruction. Reconstruction problems. I. Aims of reconstruction, p. 14.

EMPLOYMENT IN SELECTED INDUSTRIES IN NOVEMBER, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in November, 1918, from representative establishments in 13 manufacturing industries. The figures for this month appear to be more or less affected by the signing of the armistice and peace celebrations. Comparing the figures of November of this year with those of identical establishments for November, 1917, it appears that in 2 industries there was an increase in the number of persons employed and in 11 a decrease. Car building and repairing and automobile manufacturing show increases of 11.7 per cent and 9.7 per cent, while silk shows the greatest decrease, 13.5 per cent.

Eleven of the 13 industries show an increase in the total amount of the pay roll for November, 1918, as compared with November, 1917, the most important of which, 74.1 per cent, is shown in car building and repairing. Two of the industries, woolen and silk, show decreases of 12.6 and 4.3 per cent, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN NOVEMBER, 1917, AND NOVEMBER, 1918.

Industry.	Estab-lishments reporting for Novem-ber, 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 (-).
			Novem-ber, 1917.	Novem-ber, 1918.		Novem-ber, 1917.	Novem-ber, 1918.	
Automobile manufacturing	51	1 week..	79,831	87,536	+ 9.7	\$1,721,481	\$2,155,906	+25.2
Boots and shoes.....	63	..do....	51,455	47,932	- 6.8	778,523	808,391	+ 3.8
Car building and repairing.	45	½ month	63,194	70,608	+11.7	2,524,178	4,395,556	+74.1
Cigar manufacturing.....	57	1 week..	21,593	18,854	-12.7	284,008	287,768	+ 1.3
Men's ready-made clothing.	36	..do....	24,349	21,347	-12.3	414,872	416,428	+ .4
Cotton finishing.....	18	..do....	15,131	13,730	- 9.3	242,749	249,532	+ 2.8
Cotton manufacturing.....	53	..do....	53,550	48,240	- 9.9	684,143	712,755	+ 4.2
Hosiery and underwear.....	58	..do....	31,955	30,467	- 4.7	389,214	406,597	+ 4.5
Iron and steel.....	95	½ month	176,178	170,495	- 3.2	9,677,241	11,662,096	+20.5
Leather manufacturing.....	35	1 week..	13,782	12,266	-11.0	235,266	245,376	+ 4.3
Paper making.....	53	..do....	22,898	22,694	- .9	417,495	467,824	+12.1
Silk.....	39	2 weeks..	12,952	11,203	-13.5	325,861	311,713	- 4.3
Woolen.....	53	1 week..	51,970	46,397	-10.7	856,675	748,993	-12.6

The following table shows the number of persons actually working on the last full day of the reported pay period in November, 1917, and November, 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 NOVEMBER, 1917, AND NOVEMBER, 1918.

Industry.	Establishments reporting for November, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (-).
			November, 1917.	November, 1918.	
Automobile manufacturing.....	28	1 week....	34,474	36,547	+ 6.0
Boots and shoes.....	23	..do.....	11,208	9,886	-11.8
Car building and repairing.....	45	½ month....	56,101	62,018	+10.5
Cigar manufacturing.....	21	1 week....	5,134	3,988	-22.3
Men's ready-made clothing.....	5	..do.....	8,713	8,154	- 6.4
Cotton finishing.....	14	..do.....	10,438	9,442	- 9.5
Cotton manufacturing.....	35	..do.....	26,515	23,946	- 9.7
Hosiery and underwear.....	22	..do.....	13,950	12,880	- 7.7
Iron and steel.....	78	½ month....	139,336	133,107	- 4.5
Leather manufacturing.....	20	1 week....	9,214	8,361	- 9.3
Paper making.....	17	..do.....	6,228	6,133	- 1.5
Silk.....	23	2 weeks....	8,558	7,151	-16.4
Woolen.....	41	1 week....	40,121	34,904	-13.0

The comparison of data for November, 1918, with October, 1918, appears in the following table. The figures show that in 10 industries there was an increase in the number of persons on the pay roll in November as compared with October and in 3 a decrease. Increases of 6.5 and 6.4 per cent are shown in cigar manufacturing and hosiery and underwear, respectively, while the largest decrease, 3.7 per cent, appears in silk.

In comparing November of this year with October only 2 industries show an increase, while 11 show a decrease in the amount of money paid to employees. The larger increase is 9.6 per cent in cigar manufacturing, and the greatest decrease, 16.8 per cent, in silk.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN OCTOBER, 1918, AND NOVEMBER, 1918.

Industry.	Establishments reporting for October and November.	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 (-).
			October, 1918.	November, 1918.		October, 1918.	November, 1918.	
Automobile manufacturing.....	52	1 week....	88,608	89,508	+1.0	\$2,393,818	\$2,180,393	- 8.9
Boots and shoes.....	61	..do.....	41,088	42,591	+3.7	793,548	723,680	- 8.8
Car building and repairing.....	43	½ month....	62,916	63,508	+ .9	4,113,829	3,982,281	- 3.2
Cigar manufacturing.....	60	1 week....	17,949	19,110	+6.5	266,436	291,930	+ 9.6
Men's ready-made clothing.....	35	..do.....	19,579	19,306	-1.4	393,513	375,248	- 4.6
Cotton finishing.....	17	..do.....	13,253	13,372	+ .9	251,154	243,691	- 3.0
Cotton manufacturing.....	53	..do.....	45,457	47,901	+5.4	705,363	710,225	+ .7
Hosiery and underwear.....	62	..do.....	29,180	31,060	+6.4	430,545	411,748	- 4.4
Iron and steel.....	94	½ month....	172,451	169,924	-1.5	12,775,287	11,629,158	- 9.0
Leather manufacturing.....	36	1 week....	14,964	15,075	+ .7	311,953	303,634	- 2.7
Paper making.....	53	..do.....	21,484	22,694	+5.6	474,601	467,824	- 1.4
Silk.....	40	2 weeks....	11,920	11,474	-3.7	383,445	318,963	-16.3
Woolen.....	51	1 week....	44,815	46,061	+2.8	817,362	743,290	- 9.1

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 October and November, 1918:

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN OCTOBER, 1918, AND NOVEMBER, 1918.

Industry.	Establishments reporting for October and November.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (-).
			October, 1918.	November, 1918.	
Automobile manufacturing.....	30	1 week....	38,154	38,431	+ 0.7
Boots and shoes.....	28	do.....	11,131	12,019	+ 8.0
Car building and repairing.....	43	½ month....	54,081	55,450	+ 2.5
Cigar manufacturing.....	22	1 week....	3,961	3,995	+ .9
Men's ready-made clothing.....	7	do.....	7,960	8,725	+ 9.6
Cotton finishing.....	13	do.....	8,398	9,092	+ 8.3
Cotton manufacturing.....	36	do.....	23,229	25,818	+15.5
Hosiery and underwear.....	30	do.....	13,036	14,427	+10.7
Iron and steel.....	88	½ month....	138,915	136,837	- 1.5
Leather manufacturing.....	22	1 week....	11,015	11,277	+ 2.4
Paper making.....	21	do.....	8,348	8,720	+ 4.5
Silk.....	27	2 weeks....	8,180	8,293	+ 1.4
Woolen.....	42	1 week....	33,399	35,223	+ 5.5

CHANGES IN WAGE RATES.

During the period October 15 to November 15, 1918, there were establishments in 12 of the 13 industries which reported increases in wage rates. Establishments in two of these industries reported reductions—boots and shoes and iron and steel—while automobile manufacturing reported one that had discontinued paying a bonus. 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 15 per cent was granted to 62½ per cent of the force in one plant. The productive average hourly rate in one establishment was increased 0.0144 cent. Three concerns reported increases, but gave no information concerning the amount of increase or the proportion of the force affected. One plant discontinued paying a bonus to its employees.

Boots and shoes: One establishment reported an increase of 30 per cent to all of its force except the foremen. Eleven per cent of the help in one factory received an increase ranging from 12 to 14 per cent. Two establishments granted the employees 10 per cent in war savings stamps, a 10 per cent increase to the entire force was given by one plant, 3½ per cent to all of the employees in another, and about 1½ per cent to the entire force in a fifth establishment. Two concerns reported increases of 3 and 4 per cent in individual instances. Increases were reported by two other plants, but no information was given as to the amount or the number affected thereby. One plant reported a decrease of about 1 per cent, affecting the entire force.

Car building and repairing: A few of the railroads reported increases in compliance with Addendum No. 2 to Supplement No. 4 to General Order No. 27, promulgated by the Director General of the Railroads. One car and foundry plant increased 15 per cent of its employees about 8 per cent.

Cigar manufacturing: One plant reported an increase of 9 per cent to the entire force; another, an increase of approximately 8 per cent to about 70 per cent of the employees; and a third gave a 5 per cent increase to 75 per cent of its force. An increase of 40 per cent was granted in one establishment, but no mention was made as to the per cent of the employees affected.

Men's ready-made clothing: One establishment reported an increase of 10 per cent to about 14 per cent of the force.

Cotton finishing: An increase of 10 per cent was reported by one plant, but no statement was made as to the number of persons affected.

Cotton manufacturing: One plant granted increases ranging from 10 to 25 per cent to about 9 per cent of the employees.

Hosiery and underwear: In two plants, increases were granted that affected the entire force—one was an increase of 10 per cent and the other 5 per cent. One establishment reported a 5 per cent increase to half of the employees, while one increased its spinners 10 per cent.

Iron and steel: One plant reported an increase of 15 per cent to all of the employees, and another granted an increase of 10 per cent to all of the day men. One plant increased its men 10 per cent and 4 per cent, affecting 98 per cent and 1 per cent, respectively. An increase of 6 to 7 per cent was granted to about 5 per cent of the employees in one establishment. Two plants granted increases to one-half of the force, one increase being $2\frac{1}{2}$ per cent and the other $1\frac{1}{2}$ per cent. Another plant advanced 10 per cent of the force $2\frac{1}{2}$ per cent. About 40 per cent of the employees in two plants received increases of $2\frac{1}{2}$ per cent and $1\frac{1}{2}$ per cent. A few more establishments reported the adoption of the basic eight-hour day. Three establishments reported decreases—one, a decrease of 10 per cent, but making no statement as to the number affected; another, a decrease of $4\frac{1}{2}$ per cent, affecting about 31 per cent; and the third made a decrease of 3 per cent which affected 35 per cent of the force.

Leather: One plant increased 20 per cent of its force by paying glazers and finishers $1\frac{1}{2}$ and 2 cents per dozen more than they had been receiving. One establishment increased its workers 5 cents per hour but did not state whether this affected all of the employees. Another plant granted an increase but did not give information concerning the per cent of increase or the number of employees affected.

Paper making: An increase of 12 per cent was granted to 20 per cent of the force in one establishment, one plant gave an increase of

about 10 per cent to about 25 per cent of the force, a third plant reported an increase of 10 per cent to 14 per cent of the employees, and in another establishment an increase of about 9 per cent was granted to about 9 per cent of the workers. An increase of approximately 5 per cent was given to all of the employees in one plant.

Silk: One mill increased the entire force 10 per cent and another advanced 90 per cent of the force 8 per cent.

INDEX NUMBERS OF EMPLOYMENT, OF PAY-ROLL TOTALS, AND OF PER CAPITA EARNINGS, JANUARY, 1915, TO NOVEMBER, 1918.

Index numbers showing relatively the variation in the number of persons employed, in pay-roll totals, and in per capita earnings in 13 industries by months from January, 1915, to November, 1918, are presented in the two following tables. These index numbers are based on the figures for "Employment in selected industries," appearing in this and preceding issues of the REVIEW. The seven industries shown in the first table are the only ones for which the bureau has comparable data as far back as January, 1915. Therefore, January, 1916, is taken as the basis of comparison.

The number of persons whose names appeared on the pay roll for the base month is represented by 100. The amount of money carried on the pay rolls and the per capita earnings are likewise represented by 100. To illustrate, if the number of persons employed in the iron and steel industry in January, 1916, is taken as 100, then the number employed in that industry in November, 1918, was 135; that is, it had increased 35 per cent; and if the money pay roll in January, 1916, be taken as 100, the pay roll in November, 1918, was 257; or, in other words, the amount paid in wages was more than two and one-half times as much in November, 1918, as in January, 1916.

The index for per capita earnings was obtained by dividing the index for the amount of the pay roll by the index for the number of persons on the pay roll. Thus, the per capita earnings of boot and shoe factory employees increased 70 per cent and the per capita earnings of employees in automobile manufacturing increased 42 per cent between January, 1916, and November, 1918. Extended decimals used in the computations are omitted from the tables.

The increase in per capita earnings for car building and repairing during the past few months is due largely to the increase in wage rates granted by the Director General of Railroads. These rates are retroactive but the figures for this industry have not been revised as the amount of the additional wages due and payable for the earlier months of the year under the new rates are not available.

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL JANUARY, 1915, TO NOVEMBER, 1918.

[January, 1916=100.]

Month and year.	Boots and shoes.			Cotton finishing.			Cotton manufacturing.		
	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.
1915.									
January.....	87	80	92	85	81	95	101	98	97
February.....	87	77	89	94	90	98	101	103	101
March.....	83	71	85	91	89	97	103	105	102
April.....	77	61	79	93	92	98	102	103	101
May.....	79	66	83	93	93	100	103	104	101
June.....	80	71	89	87	86	99	102	99	97
July.....	81	73	90	92	85	93	103	99	96
August.....	82	76	92	90	88	98	101	100	99
September.....	82	76	92	90	87	96	101	101	100
October.....	90	89	99	94	92	98	102	94	93
November.....	94	97	103	104	94	90	103	99	97
December.....	109	103	95	97	100	103	102	98	96
1916.									
January.....	100	100	100	100	100	100	100	100	100
February.....	100	99	99	101	105	104	101	108	107
March.....	101	101	100	103	107	104	101	110	108
April.....	99	97	97	98	103	105	101	111	110
May.....	98	99	101	95	110	116	101	116	114
June.....	99	102	103	96	110	115	102	115	113
July.....	100	101	101	96	107	112	102	112	110
August.....	99	98	99	96	107	110	100	112	112
September.....	98	98	100	96	109	113	100	114	115
October.....	98	99	100	96	110	115	100	110	110
November.....	102	113	111	99	114	116	100	115	114
December.....	107	125	117	101	126	125	102	123	120
1917.									
January.....	108	126	117	99	123	124	101	121	120
February.....	108	128	119	99	122	124	102	123	121
March.....	107	126	117	99	124	126	101	125	123
April.....	105	117	112	96	121	126	101	122	121
May.....	104	122	118	98	132	135	100	127	127
June.....	105	132	126	98	134	136	100	135	134
July.....	102	123	120	94	124	131	101	135	134
August.....	97	123	127	94	123	131	99	129	130
September.....	91	121	132	96	125	130	98	133	136
October.....	93	122	130	95	128	134	98	135	138
November.....	101	137	136	98	140	143	100	153	153
December.....	101	162	161	100	146	145	101	160	158
1918.									
January.....	101	161	159	96	132	138	100	153	153
February.....	102	158	155	96	129	135	95	140	147
March.....	103	172	168	98	141	144	100	162	163
April.....	99	166	167	94	147	157	98	168	172
May.....	97	166	167	93	149	161	96	173	181
June.....	96	173	180	93	158	169	96	179	187
July.....	98	176	180	97	169	174	97	192	199
August.....	96	173	180	95	161	170	97	189	195
September.....	95	183	193	92	165	178	95	193	202
October.....	89	171	193	88	152	172	87	163	187
November.....	92	156	170	89	147	165	92	164	179

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, JANUARY, 1915, TO NOVEMBER, 1918—Concluded.

[January, 1916=100.]

Month and year.	Hosiery and underwear.			Iron and steel.			Silk.			Woolen manufacturing.		
	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.
1915.												
January.....	87	76	87	74	62	83	91	83	91	88	81	92
February.....	91	81	88	71	65	92	93	90	97	88	80	91
March.....	91	85	93	77	72	93	93	92	99	91	84	92
April.....	94	85	91	80	75	94	90	85	94	93	88	94
May.....	96	90	94	82	74	90	90	88	97	94	86	92
June.....	98	92	95	85	81	96	90	85	94	89	79	88
July.....	96	90	93	87	75	86	89	85	96	92	79	86
August.....	94	89	95	90	83	93	91	87	95	90	78	87
September.....	98	89	90	93	87	93	92	87	94	99	90	91
October.....	100	98	98	97	91	94	94	94	100	99	82	83
November.....	101	100	99	97	98	101	97	100	104	102	94	92
December.....	104	105	101	97	101	105	98	100	102	103	98	95
1916.												
January.....	100	100	100	100	100	100	100	100	100	100	100	100
February.....	101	105	104	102	113	111	97	105	108	102	108	105
March.....	103	108	104	105	115	110	100	109	109	102	109	106
April.....	104	105	104	104	115	110	101	108	107	104	110	106
May.....	105	111	105	108	126	116	99	108	109	105	117	112
June.....	105	110	105	109	128	117	100	110	110	103	112	110
July.....	104	102	99	110	111	101	101	100	99	101	110	108
August.....	102	102	99	113	125	111	100	103	104	97	104	107
September.....	104.	108	104	115	130	113	99	104	105	101	111	111
October.....	106	112	105	115	135	118	100	109	109	102	108	106
November.....	107	119	111	117	138	118	98	108	110	103	116	113
December.....	108	124	115	118	144	122	100	112	113	105	128	122
1917.												
January.....	107	121	113	122	152	125	100	112	112	107	132	123
February.....	108	120	111	123	149	122	99	114	116	106	131	123
March.....	109	124	114	124	159	128	98	118	120	108	131	122
April.....	106	117	110	124	148	120	97	115	113	105	124	118
May.....	108	126	116	127	176	138	95	118	124	106	140	133
June.....	107	128	120	129	176	137	93	113	121	104	139	133
July.....	105	126	119	130	165	127	93	107	114	104	140	134
August.....	103	122	118	134	183	137	91	107	117	102	136	133
September.....	104	125	120	133	179	135	89	107	119	104	142	136
October.....	105	133	127	135	212	156	88	111	127	107	155	145
November.....	106	144	136	136	214	158	88	111	126	110	168	153
December.....	108	148	137	136	207	152	88	111	127	112	175	156
1918.												
January.....	105	134	127	134	184	137	86	102	118	107	159	149
February.....	107	135	126	135	190	141	88	104	119	105	139	133
March.....	108	159	147	137	206	151	89	120	135	109	172	158
April.....	108	161	149	136	206	151	88	123	141	109	186	171
May.....	107	166	156	138	236	170	87	127	145	106	180	169
June.....	107	165	154	139	235	169	87	124	144	106	180	169
July.....	108	175	161	137	220	169	85	121	143	105	185	176
August.....	107	171	160	138	245	178	83	123	148	104	199	192
September.....	105	175	167	137	249	182	79	127	162	103	191	185
October.....	95	155	164	138	282	205	79	128	162	95	162	171
November.....	101	148	147	135	257	190	76	107	140	98	148	151

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, FEBRUARY, MARCH, OR NOVEMBER, 1915, TO NOVEMBER, 1918.

[January, 1916=100.]

Month and year.	Automobile manufacturing.			Car building and repairing.			Cigar manufacturing.		
	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.
1915.									
February.....				71	71	101			
March.....				80	87	108	106	91	86
April.....				67	71	106	90	88	97
May.....				86	91	106	98	92	94
June.....				87	97	111	94	94	100
July.....				92	104	113	96	99	104
August.....				89	92	103	92	94	102
September.....				95	97	102	97	93	96
October.....				99	108	109	106	109	103
November.....	99	108	109	104	113	108	108	116	108
December.....	103	100	100	108	133	122	106	111	105
1916.									
January.....	100	100	100	100	100	100	100	100	100
February.....	112	111	99	104	121	117	95	94	99
March.....	114	117	103	109	132	122	99	97	98
April.....	112	114	102	110	132	121	93	96	103
May.....	113	119	105	109	133	122	90	96	106
June.....	109	115	106	111	134	120	91	98	108
July.....	116	105	91	108	126	117	91	99	109
August.....	117	119	102	109	125	115	90	97	108
September.....	123	132	108	113	128	113	93	105	113
October.....	132	148	112	111	132	119	97	112	115
November.....	129	155	120	117	145	124	93	110	119
December.....	125	135	108	116	154	133	96	117	122
1917.									
January.....	133	137	103	111	136	122	97	111	115
February.....	134	149	111	112	134	119	98	113	115
March.....	135	158	117	109	142	130	100	117	118
April.....	133	153	115	104	130	125	92	106	115
May.....	130	156	120	105	144	138	92	113	123
June.....	125	146	117	104	144	138	94	118	126
July.....	118	141	119	108	134	124	94	117	124
August.....	120	136	113	107	146	137	87	107	124
September.....	125	153	122	96	129	135	91	114	125
October.....	126	160	127	103	153	148	98	127	130
November.....	122	165	135	108	166	154	103	137	133
December.....	121	156	129	113	170	150	103	136	132
1918.									
January.....	119	137	115	113	151	133	103	129	126
February.....	119	142	120	112	154	137	101	131	129
March.....	123	158	128	111	167	150	104	141	135
April.....	124	161	130	108	166	154	103	142	139
May.....	124	172	139	109	177	163	88	121	138
June.....	126	175	138	102	163	159	94	138	147
July.....	122	170	140	110	196	178	96	139	145
August.....	118	177	151	116	240	207	92	121	131
September.....	120	182	152	119	242	204	93	135	146
October.....	121	192	158	125	271	217	87	125	144
November.....	123	174	142	126	263	208	92	137	148

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, FEBRUARY, MARCH, OR NOVEMBER, 1915, TO NOVEMBER, 1918—Concluded.

[January, 1916=100.]

Month and year.	Men's ready-made clothing.			Leather manufacturing.			Paper manufacturing.		
	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.	Number on pay roll.	Amt. of pay roll.	Per capita earnings.
1915.									
February.....	98	98	100						
March.....	92	86	94						
April.....	80	70	88						
May.....	94	86	92						
June.....	95	95	100						
July.....	97	107	111						
August.....	83	86	104						
September.....	80	83	104						
October.....	84	95	113						
November.....	88	107	121	97	91	94	84	92	109
December.....	81	93	114	101	103	102	96	99	104
1916.									
January.....	100	100	100	100	100	100	100	100	100
February.....	98	105	107	112	111	99	105	109	104
March.....	100	106	106	111	105	95	103	106	103
April.....	97	106	110	110	108	98	104	107	103
May.....	102	105	103	106	109	103	106	112	106
June.....	105	116	111	104	112	108	108	118	110
July.....	105	122	117	106	113	106	107	117	109
August.....	97	118	122	110	118	107	109	122	113
September.....	93	112	121	101	111	110	102	118	115
October.....	95	116	121	111	129	116	103	122	118
November.....	101	126	125	113	131	116	101	124	123
December.....	92	117	127	116	141	122	114	138	121
1917.									
January.....	107	117	109	124	141	114	118	135	115
February.....	107	123	115	121	145	120	117	135	115
March.....	110	132	121	119	142	119	117	136	116
April.....	110	123	112	114	133	117	116	135	116
May.....	113	135	119	109	133	121	113	141	125
June.....	118	144	122	106	129	122	115	144	125
July.....	113	151	134	105	126	120	111	139	125
August.....	108	141	130	104	130	126	103	138	134
September.....	103	136	132	104	136	131	109	143	132
October.....	101	139	138	104	144	138	110	148	134
November.....	104	154	147	111	157	141	111	161	145
December.....	107	162	152	114	172	151	114	160	141
1918.									
January.....	102	147	144	111	163	147	112	146	131
February.....	105	155	148	108	154	142	109	147	135
March.....	101	159	157	106	165	156	113	168	149
April.....	101	154	152	102	161	159	112	171	152
May.....	101	168	166	101	175	174	113	174	154
June.....	101	170	168	104	192	185	113	181	160
July.....	102	172	169	106	192	180	114	191	167
August.....	98	163	166	105	194	185	114	204	178
September.....	94	154	164	102	188	184	114	203	179
October.....	86	146	170	98	177	181	106	194	183
November.....	85	139	165	99	172	175	112	191	171

REPORT OF EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM
(GREAT BRITAIN AND IRELAND) FOR FIVE WEEKS ENDING OCTOBER
11, 1918.

As reported by the British Labor Gazette of November, 1918, the total number of workpeople remaining on the registers of the 397 British employment offices on October 11, 1918, was 93,427, as compared with 97,882 on September 6, 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 Sept. 6, 1918.....	28,611	53,226	7,976	8,069	97,882
Number of individuals registered during period.....	102,111	144,403	25,567	22,791	294,872
Total.....	130,722	197,629	33,543	30,860	392,754
Registrations during period.....	3,202	5,605	675	439	9,921
On registers Oct. 11, 1918.....	27,125	51,149	7,462	7,691	93,427
Vacancies notified during period.....	92,795	79,947	15,177	13,412	201,331
Vacancies filled during period.....	65,255	65,626	12,616	9,989	153,486
Applicants placed in other districts.....	20,047	13,956	1,729	1,721	37,453

The average daily number of registrations, of vacancies notified, and of vacancies filled during the month was 10,160, 6,711, and 5,116, respectively.

	Average daily registrations.			Average daily vacancies notified.			Average daily vacancies filled.		
	Five weeks ending Oct. 11, 1918.	Increase (+) or decrease (-) on a—		Five weeks ending Oct. 11, 1918.	Increase (+) or decrease (-) on a—		Five weeks ending Oct. 11, 1918.	Increase (+) or decrease (-) on a—	
		Month ago.	Year ago.		Month ago.	Year ago.		Month ago.	Year ago.
Men.....	3,511	-344	+ 79	3,093	-136	+144	2,175	-141	+246
Women.....	5,000	-430	-586	2,665	-196	+199	2,188	-230	+108
Boys.....	875	-101	+ 5	506	- 59	+ 21	420	- 57	+ 24
Girls.....	774	- 82	- 52	447	- 3	- 3	333	- 18	- 8
Total.....	10,160	-957	-554	6,711	-394	+361	5,116	-446	+370

Compared with a month ago the daily average of registrations, vacancies notified, and vacancies filled showed percentage decreases of 8.6, 5.5, and 8.0, respectively. Compared with a year ago there was a percentage decrease of 5.2 in the daily average of registrations, and percentage increases of 5.7 and 7.8 in the daily average of vacancies notified and vacancies filled, 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 October 11, 1918:

Occupation group.	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies.				Vacancies.			
			Notified during period.		Filled during period.		Notified during period.		Filled during period.	
	Men.	Women.	Men.	Women.	Men.	Women.	Boys.	Girls.	Boys.	Girls.
A. INSURED TRADES.¹										
Building.....	18,648	1,339	18,911	910	12,900	801	485	25	401	21
Works of construction.....	9,862	97	11,929	30	9,240	33	20	1	17	1
Sawmilling.....	1,201	1,360	1,233	1,167	736	834	443	164	390	126
Shipbuilding.....	5,159	494	5,594	241	4,202	215	457	19	360	14
Engineering.....	28,473	27,098	26,206	17,535	19,425	15,388	4,462	1,108	4,189	916
Construction of vehicles.....	793	507	885	415	485	422	94	16	77	13
Cabinet making, etc.....	243	164	203	80	83	56	91	34	88	26
Miscellaneous metal trades.....	1,945	2,398	2,210	1,532	1,953	1,318	523	613	420	456
Precious metals, etc.....	132	422	134	270	69	250	149	115	121	93
Bricks and cement.....	69	89	311	81	80	53	25	10	12	10
Chemicals, etc.....	946	1,173	1,504	836	916	732	163	287	142	266
Rubber and waterproof goods.....	230	1,081	247	826	216	1,011	56	148	55	146
Ammunition and explosives.....	3,867	32,920	2,921	11,924	2,608	11,842	625	590	616	551
Leather, excluding boots and shoes..	179	589	219	316	68	266	89	140	86	114
Total, insured trades.....	71,747	69,731	72,507	36,163	52,981	33,221	7,682	3,270	6,974	2,753
B. UNINSURED TRADES.										
Wood, furniture, fittings, etc.....	9	88	43	55	5	46	37	47	29	30
Domestic.....	1,651	23,154	1,615	22,001	642	14,256	592	2,286	391	1,065
Commercial and clerical.....	3,772	15,388	1,677	6,218	1,058	5,412	1,042	1,997	836	1,767
Conveyance of men, goods, etc.....	9,034	3,099	6,103	1,680	3,494	1,394	2,978	1,300	2,083	837
Agriculture.....	1,260	3,096	1,409	3,668	997	3,118	351	207	271	182
Mining and quarrying.....	483	37	536	21	240	9	33	5	31	1
Brushes, brooms, etc.....	8	33	12	17	8	14	7	45	4	29
Pottery and glass.....	105	278	182	174	41	116	93	79	84	38
Paper, prints, books, and stationery	120	595	240	422	79	343	209	444	52	349
Textile.....	701	2,588	791	1,471	403	1,138	331	547	249	413
Dress.....	307	3,459	374	1,636	94	1,136	80	758	69	591
Boots and shoes.....	213	243	345	165	132	109	105	103	90	57
Food, tobacco, drink, and lodging...	277	2,613	524	2,322	194	1,938	266	516	221	429
General laborers.....	10,985	12,675	4,772	1,599	3,924	1,532	905	545	789	463
Shop assistants.....	335	2,841	289	678	66	415	153	742	105	513
Government, defense and profes- sional.....	899	4,355	767	1,480	487	1,296	234	499	201	460
All others.....	205	130	609	177	410	133	49	22	37	12
Total, uninsured trades.....	30,364	74,672	20,288	43,784	12,274	32,405	7,495	10,142	5,642	7,236
Grand total, all trades.....	102,111	144,403	92,795	79,947	65,255	65,626	15,177	13,412	12,616	9,989

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.

In the insured trades 141,478 adults registered for work during the period—71,747 men and 69,731 women. There were 119,622 vacancies reported—72,507 men, 36,163 women, 7,682 boys, and 3,270 girls. The number of positions filled was 95,929—52,981 men, 33,221 women, 6,974 boys, and 2,753 girls. The occupational groups in which the largest number of positions was filled by adults were: Engineering, 34,813; ammunition and explosives, 14,450; and building, 13,701.

In the uninsured trades there were 105,036 registrations—30,364 men and 74,672 women. The number of vacancies reported was 81,709—20,288 men, 43,784 women, 7,495 boys, and 10,142 girls. The total number of positions filled was 57,557—12,274 men, 32,405 women, 5,642 boys, and 7,236 girls. The occupational group in the uninsured trade in which the largest number of positions was filled by adults was: Domestic, 14,898.

The total number of positions filled by adults in both the insured and uninsured trades during the five weeks ending October 11, 1918, as compared with the preceding month, shows an increase of 15.2 per cent. The increase in the number of positions filled by men was 17.4 per cent; by women, 13.1 per cent. The largest number of both men and women were employed in engineering.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN OCTOBER, 1918.

The following figures as to the condition of employment in Great Britain and Ireland in October, 1918, as compared with September, 1918, and October, 1917, have been compiled from figures appearing in the British Labor Gazette of November, 1918. Similar information for July was published in the October REVIEW.

In comparing October, 1918, with September, 1918, as to number of employees, only one large increase—10.9 per cent, in seamen—is shown, while a number of slight increases, ranging from 0.1 per cent to 2.5 per cent, appear. The largest decreases shown are 7 per cent and 6 per cent in dock and riverside labor and in the corset trade, respectively, while several small decreases appear. These range from 0.03 per cent to 2.7 per cent.

Comparing October, 1918, with October, 1917, relative to the number of employees, an increase of 15 per cent in seamen and a decrease of 15 per cent in the corset trade are shown. A number of increases ranging from 0.05 per cent to 5.9 per cent and decreases from 0.7 per cent to 8.5 per cent are shown.

The aggregate earnings of employees in October, 1918, as compared with September, 1918, show increases of 9.3 per cent, 8.8 per cent, and 8.5 per cent in cement, bookbinding, and printing trades, respectively; and decreases of 12.6 per cent and 5.4 per cent in the jute and hosiery trades, respectively.

More important changes relative to the earnings of employees are seen when comparing October, 1918, and October, 1917, all but one of which are increases. The largest increases—41.7 per cent, 36.9 per cent, and 33.7 per cent—are shown in bookbinding, cement, and printing trades.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN OCTOBER, 1918, AS COMPARED WITH SEPTEMBER, 1918, AND OCTOBER, 1917.

[Compiled from figures in the Labour Gazette, London, November, 1918.]

Industries, and basis of comparison.	Per cent of increase (+) or decrease (-) in October, 1918, as compared with—		Industries, and basis of comparison.	Per cent of increase (+) or decrease (-) in October, 1918, as compared with—	
	September, 1918.	October, 1917.		September, 1918.	October, 1917.
Coal mining: Average number of days worked.....	+ 0.52	+ 5.7	Other clothing trades:		
Iron mining: Average number of days worked.....	- 6.3	- 6.1	Dressmaking and millinery—		
Quarrying: Average number of days worked.....	+ 1.3	- .5	Number of employees....	+ 2.5	- 2.9
Pig iron: Number of furnaces in blast.....	+ .3	- 1.0	Wholesale mantle, costume, blouses, etc.—		
Iron and steel works:			Number of employees—		
Number of employees.....	+ .3	+ .4	London.....	- .7	+ 2.5
Number of shifts worked.....	+ .5	- .1	Manchester.....	+ 2.5	- 1.3
Engineering trades: Number of employees ¹	+ .04	+ .05	Glasgow.....	- 2.2	- 1.3
Shipbuilding trades: Number of employees ¹	- .03	+ .16	Corset trade: Number of employees.....	- 6.0	-15.0
Tinplate, steel, and galvanized sheet trades: Number of mills in operation.....	- .3	+ 3.6	Building and construction of works: Number of employees ¹	(²)	+ .1
Cotton trade:			Sawmilling and machining:		
Number of employees.....	- .1	- 7.7	Number of employees ¹	- .1	+ .09
Earnings of employees.....	+ 3.6	+18.8	Brick trade:		
Woolen trade:			Number of employees.....	- 2.0	- 5.0
Number of employees.....	- .9	- 4.0	Earnings of employees.....	- 1.0	+13.8
Earnings of employees.....	+ 1.0	+21.0	Cement trade:		
Worsted trade:			Number of employees.....	- 2.1	+ .2
Number of employees.....	(²)	- 4.3	Earnings of employees.....	+ 9.3	+36.9
Earnings of employees.....	+ 1.4	+24.5	Paper, printing, and bookbinding trades:		
Hosiery trade:			Paper trades—		
Number of employees.....	- 2.7	- 3.9	Number of employees reported by trade-unions ¹	- .8	- .7
Earnings of employees.....	- 5.4	+17.4	Number of employees reported by employers.....	+ .2	- .9
Jute trade:			Earnings of employees reported by employers.....	+ 1.5	+25.0
Number of employees.....	- .3	- 8.0	Printing trades—		
Earnings of employees.....	-12.6	- 2.6	Number of employees reported by trade-unions ¹	(²)	+ .2
Linen trade:			Number of employees reported by employers.....	+ .6	- 1.5
Number of employees.....	(³)	- 2.5	Earnings of employees reported by employers.....	+ 8.5	+33.7
Earnings of employees.....	+ 2.9	+20.6	Bookbinding trades—		
Silk trade:			Number of employees reported by trade-unions ¹	+ .1	+ .4
Number of employees.....	- 1.1	- 1.9	Number of employees reported by employers.....	+ .2	- 1.8
Earnings of employees.....	+ 1.8	+23.0	Earnings of employees reported by employers.....	+ 8.8	+41.7
Carpet trade:			Pottery trade:		
Number of employees.....	+ .6	- 7.6	Number of employees.....	+ .5	- 3.5
Earnings of employees.....	+ 7.8	+21.8	Earnings of employees.....	+ 6.0	+18.4
Lace trade:			Glass trades:		
Number of employees.....	- 1.3	- 7.9	Number of employees.....	- .2	- 6.2
Earnings of employees.....	- 1.4	+ 3.3	Earnings of employees.....	+ 5.4	+14.7
Bleaching, printing, dyeing, and finishing:			Food preparation trades:		
Number of employees.....	- .5	- 8.5	Number of employees.....	+ .5	- 4.6
Earnings of employees.....	+ 1.2	+ 8.3	Earnings of employees.....	+ 2.6	+15.2
Boot and shoe trade:			Dock and riverside labor: Number of employees.....	- 7.0	+ 5.9
Number of employees.....	- 1.3	- 7.0	Seamen: Number of employees.....	+10.9	+15.0
Earnings of employees.....	+ 2.7	+14.3			
Leather trades: Number of employees.....	(²)	+ 1.5			
Tailoring trades:					
Number of employees.....	- 1.2	+ .7			
Earnings of employees.....	+ 1.7	+27.8			
Shirt and collar trade:					
Number of employees.....	- .2	- 1.7			
Earnings of employees.....	+ 2.6	+26.3			

¹Based on unemployment returns. ²No change. ³Change of less than one-tenth of 1 per cent.

UNEMPLOYMENT, AND TRADE COURSES FOR THE UNEMPLOYED, IN DENMARK.

According to data collected in Denmark in September, 1918, by a special representative of the War Trade Board, "the increase in unemployment is unfortunately disquietingly large." It appears that in Copenhagen "the number of unskilled workpeople has risen from 667 to 751 [an increase of 12.6 per cent], and of skilled workpeople from 16,282 to 16,707 [an increase of 2.6 per cent]. In the Provinces the number has risen from 14,000 to 14,372" (an increase of 2.7 per cent). The report states that during the first three weeks of September there was quite a considerable increase in the number of unemployed, so that the figures for the whole country for the last week reported were 32,673, as against 32,030 (an increase of 2 per cent) in the previous week.

The appointment of a subcommittee by the Ministry of the Interior to arrange trade lessons for the unemployed is noted. This will afford an opportunity to equip those out of work for other trades or to educate them so that the forced unemployment may be used to the best possible advantage. At the beginning of September a course was started for unemployed woman servants in which 40 factory workers also registered. Later in the month courses on automobile questions were started in the Technological Institute for chauffeurs and for laborers on motors. About 50 enrolled in these courses. The success of this plan had not been demonstrated at the time of the report, but it is suggested that if it should prove successful a similar opportunity will be given to textile workers all over the country, and courses on staining and polishing will be established for cabinet makers and courses on accounting, leveling, iron concrete, understanding of drawing, etc., for laborers. It is suggested, however, that the cooperation of the different trades will be necessary.

AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYED.

NEW WAGE ADJUSTMENT IN THE CLEVELAND GARMENT INDUSTRY.

On July 23, 1918, approximately 4,000 garment workers, about 80 per cent of the total number, in the Cleveland cloak, suit, skirt and dress industry affiliated with the International Ladies' Garment Workers' Union, went on strike to enforce their demands for an increase in wages amounting to about 30 per cent and the establishment of the principle of collective bargaining. Efforts of local interests to effect a settlement failed, and on August 12 the Secretary of War, because of army-uniform contracts which had been placed with the companies whose workers were on strike, and in response to the request of the employers and the president of the International Ladies' Garment Workers' Union, appointed three referees¹ "to investigate and adjudicate the issues in dispute between the employers and workers in these trades." Promptly after such appointment, on direction of the referees, the workers then on strike returned to work. The referees proceeded to Cleveland, heard the respective parties, and caused an investigation to be made of general conditions in the industry in that city and the wages paid, and a similar investigation of the conditions and wages in other cities which are centers of a similar industry.

The report of the board of referees was submitted on October 19. It provides a general wage increase of from 20 to 25 per cent, effective as of August 1, 1918, to continue in force for a period of not less than eight months from that date, and further, that "any subsequent adjustment shall be made on the basis of changes in the cost of living." The employers were given until November 16 within which to reimburse the workers for the excess in wages fixed in the award over those paid for the period from August 1 to the date when the report took effect, and provision is made for the adjustment of any disputes as to the amount of such excess and any claims for excess sums due for piece work performed in the interval, where the employer and his workers fail to agree, through a representative of the referees whose decision shall be final and binding upon both workers and employers.

¹ These referees are Dr. E. M. Hopkins, assistant to the Secretary of War, chairman, Maj. S. J. Rosensohn, U. S. Army, and Hon. John R. McLane.

One of the points to be considered by the referees was the devising of a permanent plan for the adjustment of labor disputes in the Cleveland garment industry, and in submitting their report the referees reserved the right to defer for one month their decision upon this matter.¹ However, the report contains the principles which it is thought should be carefully considered in devising such a plan. This portion of the report is quoted in full:

In many ways the industry in the city of Cleveland is far in advance of the same industry in other cities, in matters of safety and sanitation, in the amicable relations between employers and employees, and in the regularity and permanence of employment. The manufacturers of Cleveland, with a full recognition of their duty as leaders of their industry, have made serious and in great measure successful efforts toward solving some of the most difficult problems which have affected that industry, often at great pecuniary sacrifice in the interest of that industry and to promote the welfare of their workers.

But the fact that a strike occurred this year at a time when continuous production was of the greatest importance to the Government shows plainly the need of some permanent plan for the adjustment of disputes, that would render unnecessary a resort to industrial warfare. The working out of such an adequate plan is of such great importance that the referees have thought it desirable that more time be given to its consideration. They have therefore postponed their decision on this question for one month.

In devising such a plan the following principles should be carefully considered:

First. While it is of vital importance in an industry performing, side by side with private work, work of fundamental necessity to the Government that such industry shall be operated with the maximum of efficiency, it is of equal importance, and a necessary adjunct to such efficiency as may be achieved in the industry, that there should be a proper respect paid to the essential human rights of the workers and an adequate safeguarding of the conditions under which they labor and of the sufficiency of the remuneration which they receive. These two factors must be given equal weight. In the report and recommendation of the Council of Conciliation in the Cloak and Suit Industry in New York, the council, consisting of Dr. Felix Adler, chairman, Charles L. Bernheimer, Louis D. Brandeis, Henry Bruere, George W. Kirchwey, and Walter C. Noyes, said: "Industrial efficiency may not be sacrificed to the interests of the workers, for how can it be to their interest to destroy the business on which they depend for a living, nor may efficiency be declared paramount to the human rights of the workers; for how in the long run can the industrial efficiency of a country be maintained if the human values of its workers are diminished or destroyed. The delicate adjustment required to reconcile the two principles named must be made. Peace and progress depend upon complete loyalty in the effort to reconcile them."

Second. Where the workers are asked to refrain from general and shop strikes and the employer from individual and general lockouts, some machinery must necessarily be devised and put into operation in which the interests of employers and workers will be impartially protected, and by means of which all grievances and disputes can be adjusted with complete fairness as well as with the expedition that is naturally required to satisfy those directly affected.

¹ Subsequently the time for submitting a report on this phase of the activities of the referees was extended and at this writing (December 15) no permanent plan for the adjustment of labor disputes has been announced.

Third. The referees are bound by the provision of the call for their appointment which provided expressly that any plan for the creation of machinery for the adjustment of labor differences in Cleveland shall be subject to the restriction "that the manufacturers shall not be required to enter into any agreements with the union of the workers, nor shall the union be required to enter into any agreements with the Cleveland Cloak, Suit, Skirt, and Dress Manufacturers Association, but that the decisions of the said referee or referees shall be the working arrangement of both parties."

The referees, finding this condition and being subject to such limitation, feel that the situation in Cleveland is one particularly for the application of the principles laid down by the National War Labor Board with reference to the right to organize. These are as follows:

Right to organize.—"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.

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

"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 measures of any kind to induce persons to join their organizations nor to induce employers to bargain or deal therewith."

Existing conditions.—"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.

"Established safeguards and regulations for the protection of the health and safety of workers shall not be relaxed."

It is with these principles in mind that the plan should be formulated. It is obvious that any plan for the adjustment of labor conditions, no matter how perfect it may be, will fail unless it is carried out in good faith and with the mutual good will of employers and workers, union and nonunion alike; and that a plan even though concededly imperfect, should succeed if it is adopted, carried forward, and perfected in a spirit of genuine cooperation. No harmony in the industrial relations between the employers and workers in Cleveland can be sound or enduring unless it is the offspring of good will and mutual understanding on the part of all concerned. Accordingly we urge most strongly that all the parties make special effort to make the plan for the adjustment of disputes a success not merely by complying with the express terms of its provisions but with the spirit which has prompted its adoption. All concerned, employers and workers, union leaders and members, and nonunion men and women, should use their utmost endeavors to create a spirit of helpfulness and toleration in the settling and disposition of the many inherent difficulties which each side has to meet. Patience, good will, and a faith in the ultimate results will render a repetition of industrial warfare unnecessary and even impossible in Cleveland.

The referees will remain ready to be consulted on the questions left for future determination, or with respect to any further problems of general concern that may present themselves for solution.

Pending the final adoption of a plan for the adjustment of disputes, piece prices shall be fixed on the hourly basis fixed by the referees by an agreement between the manufacturer either (1) with a committee of the whole shop engaged in that particular department, or (2) with a committee chosen by the employees of the shop without any supervision on the part of the manufacturer. It is the purpose of the referees pending the final adoption of the plan for adjustment to interfere as little as possible with existing machinery which complies with any of the conditions above set forth.

NEW RATES OF WAGES IN THE CLOAK, SUIT, SKIRT AND DRESS INDUSTRY IN CLEVELAND.

The report of the referees makes the following wage adjustment in the cloak, suit, skirt, and dress industry in Cleveland:

SCHEDULE A.

WAGES FOR MEN.

	For week workers.	Basic rate for piece workers.
Cutters:		
Pattern graders.....	\$34.00	.....
Full skilled cutters.....	33.00	.....
Lining and cloth pilers.....	26.00	.....
Under six months in trade.....	15.00	.....
Machine operators:		
Head tailors.....	33.00	.....
Skilled operators.....	32.00	\$0.85
Semiskilled operators.....	27.00	.75
Minor operators and special machine work.....	27.00	.75
Under six months in trade—		
For first six weeks.....	12.00	.....
After six weeks.....	14.00	.....
Sample tailors:		
Jacket tailor.....	30.00	.....
Dress tailor.....	30.00	.....
Skirt tailor.....	25.00	.....
Pressers:		
All-round pressers.....	31.00	.85
Forepressers.....	26.00	.75
Part pressers.....		
Under six months in the trade—		
For first six weeks.....	12.00	.....
After six weeks.....	14.00	.....
Hand sewers:		
Skilled hand sewers.....	26.50	.60
Semiskilled sewers.....	21.50	45
Under six months in the trade—		
For first six weeks.....	12.00	.....
After six weeks.....	14.00	.....

WAGES FOR WOMEN.

	For week workers.	Basic rate for piece workers.
Machine operators:		
Skilled operators, cloak and suit.....	\$22.00	\$0.55
Skilled operators, skirt.....	21.00	.50
Semiskilled operators, cloak and suit.....	21.00	.50
Semiskilled operators, skirt.....	19.00	.45
Minor operations.....	19.00	.45
Pressers:		
Forepressers.....	21.50	.....
Part pressers.....	20.00	.....
Hand sewers:		
Skilled.....	20.00	.50
Semiskilled.....	16.50	.40

Women under six months in the trade shall receive \$10 for the first six weeks and \$12 thereafter.

Different bases for piece prices have been fixed for women when the women are doing a different class of work. In all cases where women perform the same work as men they shall receive equal pay for equal work.

Upon the adjustment of piece rates, prices shall be computed on a basis that will yield to the respective workers of average skill and experience the hourly rates fixed by the referees for each operation.

OVERTIME.

All week workers and pieceworkers shall receive pay at the rate of time and one-half for overtime work. In the case of pieceworkers overtime shall be computed as follows:

The total wage earned by the pieceworker for the week on the normal basic rate shall be figured and divided by the number of hours of work. For all hours of overtime there shall be paid an additional sum equal to one-half of the average and hourly earning of such worker.

The above classes shall be defined as settled in the classification submitted and agreed upon in that submission.

The analysis of the data of wage rates and of earnings submitted to the referees shows clearly that in the Cleveland market, on account of differences in methods, it is necessary to differentiate between base wage rates and earnings. This applies particularly to the H. Black Co. and the Printz-Biederman Co., where additional wage rewards in proportion to production have been introduced and in operation. Employees have thus been enabled to earn amounts not only equal to but in excess of the usual base rate. This difference must be recognized in order that all workers in all the Cleveland establishments may be on the same wage basis; the base rates in these two companies shall be on the base comprising not less than 80 per cent of the weekly rates established by this board.

This award shall date back to August 1. For the period from August 1 to the date hereof each week worker shall be paid a sum equal to the difference between the wage actually received by him or her for all hours of actual work during said period and the sum which said worker should have received at the rate of wages fixed by this award.

As to pieceworkers, adjustment of back pay shall be made by agreement between the shop committees and the employer in each shop. In case of disagreement the percentage of increase to be given the pieceworkers shall be referred to the referees or such person as shall be designated by them.

SUPPLEMENTARY AWARD IN CLOAK, SUIT, SKIRT AND DRESS INDUSTRY IN CLEVELAND.

On November 9, 1918, the referees appointed by the Secretary of War submitted a supplementary award, since "it has now, on continued investigation and before the wages established by such report [the preceding report] are put into operation, seemed best to amplify the wage schedule established by the award, so as to cover the wages which shall be paid to workers before they shall have attained the necessary proficiency to qualify for full wages in the respective classes of occupations which were covered by the award." This supplementary award includes a full statement of the definitions of the various grades and classes of workers in each industry and extends to November 30 the time within which employers must reimburse the workers for the excess in wages due them under the award. The text of the award is as follows:

The undersigned referees, duly appointed by the Secretary of War to adjudicate the issues in dispute between the employers and workers in the cloak, suit, dress, and skirt industry in Cleveland, rendered their report October 19, 1918.

It has now, on continued investigation and before the wages established by such report are put into operation, seemed best to amplify the wage schedule established by the award, so as to cover the wages which shall be paid to workers before they shall have attained the necessary proficiency to qualify for full wages in the respective classes of occupations which were covered by the award. This is necessary to prevent the injustice and dissatisfaction that would result from the varying scales that might otherwise be established in the several shops in cases not covered by the wage schedule of October 19.

As the decision stood it was left for the different manufacturers to determine the scales of wages to be paid to the workers who should not have attained the proficiency necessary to qualify them to receive the wages fixed for the respective classes of occupations for which minimum scales were established. The exercise of such power, however honestly intended, would almost inevitably have led to repeated disputes calling for constant mediation and arbitration by the referee.

Such a result obviously would be not only undesirable but might be dangerous to the industry. It is plain that the problems should, so far as possible, be solved through active and sympathetic cooperation between the manufacturers and the workers. Upon them alone the success of the industry must depend, and they must bear the responsibility for the settlement of all the problems that may arise.

Moreover, it has appeared that the referees did not provide sufficiently for the different conditions in the several trades affected, and that for this reason as well amplification of and differentiation in the wage scale established by them were advisable.

The referees accordingly held further hearings, at which all parties concerned were represented, and fixed the attached schedule B to cover the wages in the industry in Cleveland in place of the wages fixed in schedule A of the report of October 19, 1918.

The new scale represents an amplification only of the scale heretofore established, except in the cases of part pressers and minor operators, and where a different scale was necessary for the skirt and dress industry. In all such cases the referees feel that fuller consideration justifies an amendment of the scale already established.

Schedule B hereto annexed contains the definitions of the various grades and classes of workers in each industry, and shall be deemed a part of this award.

In view of the new schedules hereby established and the necessity for new calculations, the time given to the employers within which to reimburse the workers for the excess in wages over those paid for the period from August 1, is hereby extended to November 30, 1918.

Except as herein modified, the award dated October 19, 1918, shall remain in full force and effect.

Pending the further determination of the issues raised by the workers and the creation of machinery for the adjustment of differences, it is requested that so far as possible, in slack seasons work shall be distributed as equally as may be feasible among workers of the same class.

SCHEDULE B.

WAGE AWARD.

Any employee, enumerated in the annexed schedule during the first year of his or her employment in the trade, shall receive the following wage:

Men:	Per week.
For the first six weeks.....	\$12.00
For the next four and one-half months.....	15.00
For the next six months.....	18.00
Women:	
For the first six weeks.....	10.00
For the next four and one-half months.....	12.00
For the next three months.....	13.50
For the next three months.....	15.00

and thereafter the wages fixed for the particular class of work or grade thereof in which he or she shall be engaged.

When any employee is advanced from one grade or one class of work to a higher grade or class, the first six weeks of such more advanced work shall be regarded as a trial period only, and shall be compensated at the same rate as that received by the employee immediately prior to the advance.

WAGE SCALE, CLOAK AND SUIT INDUSTRY.

Cutters—male:	Per week.
Pattern graders. Those who grade and cut all sizes and kinds of patterns complete.....	\$34.00
Full skilled cutters. Those who make markers, lay up, shear cut and hand cut economically and in a workmanlike manner all raw materials that are used in manufacture of garments. Also a machine cutter who can cut and block all raw materials.....	33.00
Semiskilled cutters. Those who do efficiently some but not all the work of full skilled cutters. Those whose experience is incomplete who are doing simpler work—	
For first year.....	29.00
After first year.....	31.00
Cloth and lining pilers. (All-round pilers). Those who do all of the following classes of work: Lay up or pile all kinds of cloth, lining, trimmings, shear cutting and hand blocking.....	26.00
Pilers. Those who can not pile cloth but who can do all the other work of cloth and lining pilers.....	22.00
Canvas and miscellaneous cutters. Those who lay up, mark, and cut by hand canvas, flannels, percalines and similar findings.....	20.00

Machine operators—male:	Per week.
Head tailors. Those who make complete garments of all kinds and supervise helpers.....	\$33.00
Skilled operators—	
Class A. Those who make complete garments of all kinds or those who make the most difficult parts of all kinds of garments in a workmanlike manner.....	32.00
Class B. Those whose experience is incomplete who can not make all kinds of garments manufactured in the shop or who do not make the most difficult parts of all kinds of garments.....	30.00
Semiskilled operators—	
Class A. Those who do not make a complete garment nor the most difficult parts of garments; persons who do medium joining on all kinds of garments, such as body-closing, edge-stitching, etc.....	27.00
Class B. Those who do medium joining but because of incomplete experience not on all kinds of garments.....	24.00
Minor operators. Those who do simple seaming and joining on all kinds of garments, such as making complete lining, cuffs, flaps, and belts....	22.00
Basic rates for pieceworkers ¹	
Skilled operators, class A.....	.85
Skilled operators, class B.....	.85
Semiskilled operators, class A.....	.75
Semiskilled operators, class B.....	.75
Minor operations.....	.50
Sample jacket tailors. Persons who make original designers' samples.....	30.00
Pressers—male:	
All-round pressers. Those who, because of experience and skill, do all kinds of hand pressing, including finish pressing on all kinds of garments.....	31.00
Semiskilled pressers. Those who can do some but not all the work of all-round pressers. Those whose experience is incomplete who do simpler work—	
For first year.....	28.00
After first year.....	30.00
Forepressers—	
Class A. Those who underpress by hand all kinds of garments when sewed together before linings are set in or garments finished.....	26.00
Class B. Those who can do some but not all of the work of class A, forepressers; those whose experience is incomplete and who do simpler work; also machine pressers who do more than pressing individual parts.....	24.00
Part pressers. To include all those who press either by hand or by machine individual parts before garments are sewed together.....	22.00
Basic rate for pieceworkers ¹	
All-round presser.....	.85
Semiskilled, for first year.....	.85
Semiskilled, after first year.....	.85
Forepresser, class A.....	.75
Forepresser, class B.....	.75

¹ These are hourly rates.

Hand sewers—male:	Per week.
Skilled hand sewers. Those who do all kinds of hand sewing on all kinds of garments, including edge basting.....	\$26. 50
Semiskilled hand sewers. Those who do hand sewing on only parts of all kinds of garments.....	21. 50
Basic rate for pieceworkers— ¹	
Skilled hand sewers.....	. 60
Semiskilled hand sewers.....	. 45
Machine operators—female:	
Skilled operators. Those who make complete garments of all kinds or those who make the most difficult parts of all kinds of garments in a workmanlike manner.....	22. 00
Semiskilled operators. Those who do not make a complete garment nor the most difficult parts of all garments; persons who do medium joining on all kinds of garments, such as body closing and edge stitching..	21. 00
Minor operations. Those who do simple seaming and joining on all kinds of garments, such as making complete linings, cuffs, flaps, and belts—	
After first year in trade.....	16. 00
After second year in trade.....	18. 00
Special machine operators. Those who operate special machines, such as padding, overcasting or serging, hook, eye, clasp, button sewing, felling, basting, and tacking machines.....	16. 00
Basic rate for pieceworkers— ¹	
Skilled operators.....	. 55
Semiskilled operators.....	. 50
Pressers—female:	
Forepressers. Those who underpress complete by hand all kinds of garments when sewed together before linings are set in or garments finished; also machine pressers who do more than pressing individual parts.....	21. 50
Part pressers. To include all those who press either by hand or machine individual parts before garment is sewed together—	
After first year in trade.....	18. 00
After second year in trade.....	20. 00
Hand sewers—female:	
Skilled—	
Class A. All-round skilled hand sewers doing all kinds of hand sewing on all kinds of garments; to include skilled sleeve setters.....	20. 00
Class B. Those whose experience is incomplete who can not do all kinds of hand sewing on all kinds of garments manufactured in the shop, to include lining setters or those who baste in linings.....	18. 00
Semiskilled. Those who do hand sewing on only parts of all kinds of garments, such as felling, belt draping, and simple tacking.....	16. 50
Button sewers. Hook-and-eye, clasp and label sewers.....	15. 00
Basic rate for pieceworkers— ¹	
Skilled, class A.....	. 50
Skilled, class B.....	. 50
Semiskilled.....	. 40

¹ These are hourly rates.

WAGE SCALE, DRESS INDUSTRY.

Cutters—male:	Per week.
Pattern graders. Those who grade and cut all sizes and kinds of patterns complete.....	\$34.00
Full-skilled cutters. Those who make markers, lay up, shear cut, and hand cut economically and in a workmanlike manner all raw materials that are used in manufacture of garments; also a machine cutter who can cut and block all raw materials.....	33.00
Semiskilled cutters. Those who do efficiently some but not all the work of full-skilled cutters; those whose experience is incomplete who are doing simpler work—	
For first year.....	29.00
After first year.....	31.00
Pilers. Those who do all of the following classes of work: Lay up or pile all kinds of cloth, lining, trimmings, shear cutting, and hand blocking.....	26.00
Machine operators—male:	
Skilled machine operators. Those who make complete garments, however difficult.....	32.00
Semiskilled operators. Those who make the most difficult parts of a garment and tailors' helpers who can not make complete garments, however difficult—	
After first year in trade.....	22.55
After two years in trade.....	27.00
Basic rate for pieceworkers— ¹	
Skilled machine operators.....	.80
Semiskilled operators.....	.75
Pressers—male:	
All-round top pressers. Those who because of experience and skill do all kinds of hand pressing, including finished pressing on all kinds of garments.....	31.00
Semiskilled top pressers. Those who can do some but not all of the work of all-round top pressers; those whose experience is incomplete who do simpler work.....	28.00
Forepressers. Those who press parts of garments.....	24.00
Finish machine pressers. Those who handle and use a steam pressing machine and who do more than pressing individual parts.....	25.00
Part machine pressers. Those who press by machine individual parts before the garment is sewed together.....	22.00
Basic rate for pieceworkers— ¹	
All-round top pressers.....	.85
Semiskilled top pressers.....	.85
Fore pressers.....	.70
Sample tailors—male. Persons who make original designers' samples.....	28.00
Sample makers—female. Persons who make original designers' samples.....	21.00
Machine operators—female:	
Skilled operators. Those who make complete garments of all kinds or those who make the most difficult parts of all kinds of garments in a workmanlike manner.....	22.00
Semiskilled operators. Those who do not make a complete garment nor the most difficult parts of all garments; persons who do medium joining on all kinds of garments, such as body-closing and edge stitching.....	19.00

¹ These are hourly rates.

Machine operators—female—Continued.		Per week.
Minor operators. Persons doing special minor operations, such as running special machines, simple seaming, and making pockets, belts, linings, and other simple parts of a garment.....		\$16. 00
Basic rate for pieceworkers— ¹		
Skilled operators.....		. 55
Semiskilled operators.....		. 50
Minor hand sewers—female. Those who can only do the simplest hand sewing operations such as button, hook and eye, fastener and label sewers, and hand tackers.....		15. 00
Women ironers.....		19. 00
Basic rate for pieceworkers ¹.....		. 45

WAGE SCALE, SKIRT INDUSTRY.

Cutters—male:		
Pattern graders. Those who grade and cut all sizes and kinds of patterns complete.....		34. 00
Full-skilled cutters. Those who make markers, lay up, shear cut, and hand cut, economically and in a workmanlike manner, all raw materials that are used in manufacture of garments. Also a machine cutter who can cut and block all raw materials.....		30. 50
Semiskilled cutters. Those who do efficiently some, but not all, the work of full-skilled cutters. Those whose experience is incomplete, who are doing simpler work.....		28. 00
Pilers. Those who do all of the following classes of work: Lay up or pile all kinds of cloth, lining, trimmings, shear cutting, and hand blocking..		26. 00
Pressers—male:		
All-round upper presser. Those who press any garment, however difficult.....		29. 00
Forepressers. Those who press parts of garments.....		24. 00
Machine pressers. (Definition to come later).....		25. 00
Part or piece pressers. Those who press small parts of a garment by hand or machine.....		20. 00
Basic rate for pieceworkers— ¹		
All-round upper pressers.....		. 80
Forepressers.....		. 70
Machine pressers.....		. 70
Part pressers.....		. 50
Machine operators—male:		
Head tailors. Those who make complete garments of all kinds and supervise helpers.....		33. 00
Skilled operators. Those who make complete garments, however difficult.....		32. 00
Semiskilled operators. Those who make the most difficult parts of a garment and are tailors' helpers, but can not make the complete garment, however difficult.....		27. 00
Minor operations. Those who work on special machines and do the lesser important and simpler operations on skirts.....		22. 00
Basic rate for pieceworkers— ¹		
Full-skilled operators.....		. 85
Semiskilled operators.....		. 75
Minor operations.....		. 50

¹ These are hourly rates.

	Per week.
Machine operators—female:	
Skilled operators. Those who make complete garments of all kinds.....	\$21. 00
Semiskilled operators. Those capable of making the more difficult parts of a garment, but who do not make a complete garment.....	19. 00
Minor operations. Those making parts of a garment, but not the more difficult, and all special machine operators, including hook and eye, clasp, overcaster, hemstitcher, basting machines, etc.....	16. 00
Basic rates for pieceworkers— ¹	
Skilled operators.....	. 50
Semiskilled operators.....	. 45
Minor operations.....	. 40
Skirt finishers—female. Those who sew on hooks and eyes, buttons, fasteners, and labels, trimmings, etc., which does not require skill or experience..	15. 00
Sample tailors—male. Persons who make original designers' samples.....	25. 00
Sample tailors—female. Those who make complete samples for designers....	21. 00

AGREEMENT BETWEEN BRITISH COLUMBIA SHIPOWNERS AND THEIR EMPLOYEES.²

A dispute over hours of labor, wages, and working conditions having arisen as between various employers concerned in water transportation between British Columbia ports and American ports in Puget Sound and Alaska and certain of their employees, being shipmasters and mates, members of the Canadian Merchant Service Guild, and employed in vessels operating out of British Columbia ports in coastwise service, a royal commission of three³ was appointed, under the Inquiries Act, to make an inquiry "extending to all such matters as wages, hours of work, working conditions, and such other matters as might seem to be the occasion of the existing friction." This commission on September 27, 1918, submitted an interim report to the Governor General for the Dominion of Canada, setting out the causes of the dispute and the procedure of the commission in arriving at the facts and making certain recommendations as to wages and working conditions.

It appears from the statement by the commission that the Canadian Merchant Service Guild, organized in 1917 and composed of about 98 per cent of the certificated shipmasters, navigating officers, and pilots upon all vessels trading upon the British Columbia coast, submitted in April, 1918, to the various owners affected a minimum wage scale and working rules. The owners replied that they preferred to deal with their own masters and officers and not with the guild, and when the latter demanded the right of their representatives to be present at the negotiations the owners definitely refused and a deadlock ensued. At this point the commission was appointed, which soon

¹ These are hourly rates.

² Data taken from the *Labor Gazette*, Ottawa, October, 1918 (pp. 810-816).

³ The members of the commission are W. E. Burns, chairman, James H. McVety, and A. E. James, all of Vancouver.

discovered that the deadlock was the primal cause of the difficulties and that most of the differences, at least those respecting wages and working conditions, might be successfully arranged by negotiations. Therefore the evidence was confined to the question of recognition or nonrecognition of the guild and centered mainly on the position of the Imperial Merchant Service Guild, its activities and status in respect to the problems of the same nature as indicated in this inquiry. It seems that the status of this latter organization as worked out in practice in its relations with shipowners was acceptable and that the Canadian Merchant Service Guild would be accepted or recognized on the one hand and satisfactory on the other if its objects were carried out and its influence developed along the same lines and in the same manner. Pending an attempt to ascertain the real status of the Imperial Merchant Service Guild an effort was made to get the parties in dispute to agree to a limited recognition of the Canadian Merchant Service Guild. The latter was favorable, but the shipowners would not accept the suggestion. Accordingly the commission decided to go on and deal with the questions of wages and working conditions which were in difference, in the meantime not making any finding on the question of recognition. The guild, however, would not agree to this arrangement and withdrew from the proceeding. The owners were then asked to submit wage scales, which they did. So serious was the tie-up of shipping and water transportation which resulted from the action of the guild, interfering with public and private business and retarding war production, that the commission obtained from the shipowners on August 26 an agreement "to accept and abide by the finding of the commission that the Canadian Merchant Service Guild be recognized to the extent of the recognition accorded the Imperial Merchant Service Guild by shipowners in Great Britain in reference to relations between employer and employees on questions of wages and working conditions," which was subsequently indorsed by the guild. The work of the commission then proceeded, and in the interim report to the Governor General the following recommendations are included:

Recognition.—Your commissioners find that the Canadian Merchant Service Guild should be recognized by shipowners in Canada to the extent of the recognition accorded the Imperial Merchant Service by shipowners in Great Britain in reference to relations between employer and employees on question of wages and working conditions. The exact status of the Imperial Merchant Service Guild in this respect, your commissioners, in accordance with the above arrangement, will determine after further evidence on the point has been obtained.

Wages.—After careful consideration of the claims of the guild and the position of the owners as set out in the statements filed and in the evidence, your commissioners find that the wages set out in the schedule hereto should apply as indicated.

In this schedule in certain instances retroactive pay is established. In the case of the Union Steamship Co., Ltd., and towboats, the increases in pay which have occurred from time to time are, in the opinion of your commissioners, satisfactory.

With reference to the vessels which have not been represented before your commissioners, the classification of the guild had been accepted. It is felt that this should be satisfactory in reference to towboats as the Towboat Owners' Association, which appeared before your commissioners, representing 45 towboats, made no complaint as to this classification. Notice of the proceedings was given to all owners of whom information could be obtained. Your commissioners will be ready to hear any owner who considers himself aggrieved in reference to this classification, and reservation is made so that any such case may be made the subject of subsequent action and readjustment.

Working conditions.—Three-watch system: The only objection voiced before your commissioners to the use of this system on the ships to which it is applicable was that the men were not available. Your commissioners feel that the three-watch system should be inaugurated and sustained where possible and would therefore recommend that this be done wherever and whenever the men are available.

Classification of officers: Your commissioners feel that the claim of the guild in this respect should not be given effect to. Any adjustments which the situation calls for because of difficulties in respect of time to be served for certificates should be made under Government regulations as the present classification in use by the owners is the most sensible and satisfactory.

Holidays: Your commissioners recommend that masters and mates on all boats should be given annual holidays with full pay to the extent of two weeks. The principle of annual holidays to the extent of a fortnight is in vogue on passenger and freight steamers, and in the opinion of your commissioners should be applied to all boats. Your commissioners also recommend that two boat masters and certificated officers away from the home port for 14 days or more should be given upon their return 24 hours free from the vessel.

Increased percentage for two boat masters and officers operating to the westward of the Jordan River and north of and across Queen Charlotte Sound:

Your commissioners are of the opinion that the evidence submitted does not disclose any undue or extraordinary hazard for the class of vessels sent to the waters in question, and if such hazard exists the practice of laying up in shelter for favorable weather removes any extra danger likely to be encountered because of weather conditions. Your commissioners also feel that there has been no good reason shown why the wages on vessels operating out of Prince Rupert should be increased 20 per cent above wages on vessels from other ports in the Province. The finding on this point is that the claim is not well founded and should not be granted.

Re harbor tugs: The questions in respect to harbor tugs of the working day, overtime and extra pay in lieu of board, are reserved by your commissioners to be dealt with later upon further evidence.

Towing by freight boats: Your commissioners feel that the claim for extra pay on this score is not well founded and should not be granted.

Number of officers on specified ships: Your commissioners' position with reference to any claim in this regard is indicated by the officers mentioned in the wage schedule hereto.

Vessels in Government service: Evidence was given before your commissioners to the effect that the present rate of wages paid is and has been for some time inadequate. The completion of evidence now would mean considerable delay and your commissioners reserve this situation to be dealt with subsequently.

Ferry boats, fishing vessels and barges: Intimation was made to your commissioners that the present situation with reference to these vessels is satisfactory. The matter was not made absolutely definite, however, and your commissioners therefore reserve

for subsequent attention any questions or difficulties which may be presented to your commissioners by owners or the guild with reference to these vessels.

Lake and river steamers: The guild has made application to your commissioners for the extension of the commission to cover inquiry with respect to wages and working conditions on these vessels. Your commissioners therefore would request that their powers be extended so that what difficulties exist may be dealt with.

Reservations.—Your commissioners, in view of the fact that subsequent report on the matters specifically reserved will be deferred on account of the necessity, in your commissioners' opinion, of obtaining evidence from England on the status of the Imperial Merchant Service Guild, desire it to be understood that any questions properly coming within the work of the commission concerning which no findings or recommendations have been set out will, at the instance of any owner or the guild, be made the subject of inquiry, if in the opinion of your commissioners they are of sufficient importance.

SCHEDULE OF SALARIES AWARDED.

Appended to the report is a schedule of salaries awarded, giving rates effective April 1 and August 1, 1918. The wages are first grouped according to the ownership of the vessels, whether the Canadian Pacific Railway Co., the Grand Trunk Pacific Railway Co., or the Union Steamship Co. of British Columbia (Ltd.), and are classified under each head according to the type of vessel to which they are applicable, the names of the vessels belonging to each class being given. In presenting this portion of the report, the rates of wages effective on April 1 and August 1, 1918, have been tabulated by classes of vessels according to ownership, and the names of the vessels as they appear in the original award have been omitted:

SCHEDULE OF MONTHLY SALARIES.

Type and class of vessel	Master.		First officer.		Second officer.		Third officer.	
	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.
Vessels owned by the Canadian Pacific Railway Co.								
Passenger and cargo:								
Class 1A.....	\$245	\$250	\$145	\$160	\$120	\$135	\$90	\$100
Class 1B.....	245	300	145	160	120	135	90	110
Class 2A.....	220	250	135	160	110	135	90	100
Class 2B.....	220	225	145	150	110	135	90	100
Class 3.....	195	210	135	150	110	125	90	100
Class 4.....	185	190	125	130	105	110		
Class 5.....	165	175	120	120	90	100		
Towboats.....	180	200	90	110				
Vessels owned by the Grand Trunk Pacific Railway Co.								
Passenger and cargo:								
Class 1.....	\$245	\$250	\$145	\$160	\$120	\$135	\$90	\$100
Class 3.....	195	210	135	150	110	125	90	100
Towboats.....	175	200	190	100				

¹ Classified as mate instead of as first officer.

SCHEDULE OF MONTHLY SALARIES—Concluded.

Type and class of vessel.	Master.		First officer.		Second officer.		Third officer.	
	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.	Effective Apr. 1, 1918.	Effective Aug. 1, 1918.
Vessels owned by the Union Steamship Co. of British Columbia (Ltd.).								
Class 3.....		\$210		\$150		\$125		¹ \$100
Class 4A.....		190		130		110		¹ 100
Class 4B.....		185		125		110		
Class 5A.....		175		120				
Class 5B.....		180		125		¹ 100		
Passenger and cargo vessels other than above mentioned:								
Class 2.....		225		150		125		100
Class 3.....		210		150		² 125		100
Class 5.....		175		120				
Class 8.....		150		³ 110				
Class 9.....								
Outside harbor.....		150		³ 110				
Inside harbor.....		125		³ 100				
Towboats other than above mentioned:								
Class 2.....		200		⁴ 110				
Class 3.....		⁵ 180		⁵ 105				
Class 4.....		170		⁷ 100				
Class 5.....		155		⁶ 90				
Class 6.....		⁸ 155		⁶ 90				
Class 7.....		⁹ 135						

¹ Given in the schedule as \$90 to \$100.² Applies to second officer when carried.³ Applies to mate when carried.⁴ Applies to mate; given in the schedule as \$100 to \$110.⁵ Given in the schedule as \$170 to \$180.⁶ Classified as mate instead of as first officer.⁷ Applies to mate; given in the schedule as \$90 to \$100.⁸ Given in the schedule as \$135 to \$155.⁹ Given in the schedule as \$125 to \$135.

CREATION OF CANADIAN RAILWAY BOARD OF ADJUSTMENT NO. 1.

So closely associated are the railroad employees in the United States and Canada because of the international character of the labor organizations to which they belong, that their interests are mutual in matters of wages and working conditions including provision for the adjustment of labor disputes. Thus, when the Director General of Railroads promulgated General Order No. 13,¹ establishing a railroad board of adjustment No. 1 to handle all controversies growing out of the interpretation or application of the provisions of wage schedules or agreements which are not promptly adjusted by the officials and the employees of any of the railroads operated by the Government, it was probably to be expected that a similar board would eventually be created in Canada to handle all railroad labor disputes arising in the Dominion. Such a board, known as the Canada Board of Adjustment No. 1, was accordingly established by an agreement between the Canadian Railway War Board and representatives of the six railroad brotherhoods,² signed on August 7, 1918.

¹ This order was published in the MONTHLY REVIEW for May, 1918, pp. 180-182.² Brotherhood of Locomotive Engineers; Brotherhood of Locomotive Firemen and Enginemen; Order of Railway Conductors; Brotherhood of Railroad Trainmen; Order of Railway Telegraphers; and International Brotherhood of Maintenance of Way Employees.

It should be stated that the Canadian Railway War Board is an association of the Canadian railroads, through which joint action is taken in connection with important transportation matters affecting the operation of all railroad systems throughout the country. It is composed of railroad officials who represent and act for practically all railroad lines in Canada.

Except for slight modifications to meet the local situation, the agreement mentioned in the preceding paragraph contains the same provisions as set forth in General Order No. 13.

WAGES AND HOURS OF LABOR.

METHOD OF APPLYING WAGE INCREASES TO PIECEWORKERS INTERPRETED BY DIRECTOR GENERAL OF RAILROADS.

On September 26, 1918, the Director General of Railroads under Federal control issued interpretation No. 3 to General Order No. 27 and to Supplement No. 4, addenda Nos. 1 and 2, interpretation No. 1 and amendment No. 1 thereto,¹ relating to the method of applying wage increases to pieceworkers and to the general application of increases. The following is the full text of interpretation No. 3:

METHOD OF APPLYING INCREASES TO PIECEWORKERS.

ARTICLE I.

(a) The increases provided for in General Order No. 27 apply to each hour worked and not to piecework prices per item or operation.

(b) Overtime hours, prior to August 1, 1918, will be paid for at the rate in effect as of December 31, 1917, and up to and including July 31, 1918; from August 1, 1918, at the rate of one and one-half times the average straight time hourly piecework earnings for the current pay period, provided that the straight time piecework earnings plus one-half additional, equals the guaranteed minimum at the hourly rate of one and one-half time.

(c) Any increase in wages due to increased rates of compensation granted between January 1, 1916, and December 31, 1917, shall be deducted from the amount of increase provided for in General Order No. 27, but in no case shall such deduction operate to reduce earnings based on rates in effect as of December 31, 1917.

(d) In the absence of established standard hourly rates for any one or more of the seven classifications designated in Supplement No. 4, the going rate in each craft in accordance with the classification existing prior to the application of Supplement No. 4 for mechanics or helpers at each point on each of the several railroads, shall be used as the base rate to which will be added the increases provided for in Section C, Article II, General Order No. 27.

(e) *Example 1.*—Assume that in Yard B, 75 wood freight car builders or repairers are employed, the base hourly rates in December, 1915, were:

- 15 at 32 cents per hour.
- 31 at 33 cents per hour.
- 17 at 34½ cents per hour.
- 12 at 36 cents per hour.

Thirty-three (33) cents thus becomes the going rate for the basis of computing the hourly increase for all wood freight car builders or repairers in Yard B. General Order No. 27, Article II, Section C, using the going rate of 33 cents, establishes a rate of 46.75 or 13.75 cents increase over the December, 1915, hourly rate. Between January 1, 1916, and December 31, 1917, increases amounting to 9 cents per hour had been put into effect. The net increase established by General Order No. 27 is therefore 4.75 cents per hour to hourly workers, and represents the total increase per hour to pieceworkers of the same class in Yard B. The same method of procedure will apply to each of the respective groups of employees, such as upholsterers, coach carpenters, cabinetmakers, passenger or freight steel car body builders or repairers, truck builders or repairers, coach painters, locomotive painters, locomotive carpenters, molders, coremakers, electricians, signal men and signal maintainers, tanners, pipe fitters, coppersmiths, sheet-metal workers, and all men classified and used as helpers.

¹ General Order No. 27 was published in the REVIEW for June (pp. 1-21); Supplement No. 4 was published in the REVIEW for September (pp. 131-134). The addenda, interpretation No. 1, and amendment No. 1 to Supplement No. 4 were not published in the REVIEW.

(f) Where piecework rates or pieceworkers received no increase between January 1, 1916 and December 31, 1917, it is evident that the average earning rate was sufficiently in excess of the hourly rate to cover any increases that may have been granted hourly workers. In determining the increase to such pieceworkers, they shall receive the same increase per hour as accrues to the hourly worker under General Order No. 27, illustrated herein by example 1, paragraph (e).

(g) The application of increases to machinists, boilermakers and blacksmiths, who are on the piecework basis, shall be as above outlined (see example 2), except where the establishment of the minimum rate of 55 cents per hour is less than the increase provided for in Section C, Article II, General Order No. 27, in which case the greater increase will apply. (See example 3.)

(h) *Example 2.*—In December, 1915, machinists in Shop C were paid a going rate of 35 cents per hour. Section C, Article II, General Order No. 27, establishes a rate of 49.50 cents per hour. This would automatically go to the minimum rate of 55 cents per hour, or 20 cents increase over the December, 1915, hourly rate. Between January 1, 1916, and December 31, 1917, increases amounting to 9 cents per hour had been put into effect. The net increase established by General Order No. 27 is therefore 11 cents per hour to hourly workers and represents the total increase per hour to the machinists on piecework in Shop C.

(i) *Example 3.*—In December, 1915, machinists in Shop D were paid a going rate of 42 cents per hour. The new rate provided for in Section C, Article II of General Order No. 27, is 58.25 cents per hour, making an increase of 16.25 cents per hour over the December, 1915, hourly rate. Between January 1, 1916, and December 31, 1917, increases amounting to 9 cents per hour had been put into effect. The net increases established by General Order No. 27 is therefore 7.25 cents per hour to hourly workers, and represents the total increase per hour to the machinists on piecework in Shop D.

(j) If the increases for pieceworkers under General Order No. 27, added to their average hourly straight time piecework earnings, by pay period, do not equal the minimum hourly rates established for hourly workers of the same class, the back pay due such pieceworkers, by pay periods, January 1, 1918, to July 31, 1918, inclusive, will be computed on the basis of the minimum hourly rates applicable to the respective classes, as per Supplement No. 4.

(k) *Example 4.*—Pieceworker E, guaranteed a 58 cent minimum hourly rate by Supplement 4, worked 208 straight time hours in March, 1918; his average piecework earnings for this pay period were 55 cents per hour, including the increase under General Order No. 27. Pieceworker E therefore receives the minimum rate of 58 cents per hour for the March pay period.

(l) *Example 5.*—Pieceworker F, guaranteed a 58 cent minimum hourly rate by Supplement 4, worked 208 straight time hours in March, 1918; his average piecework earnings for this pay period equals 60 cents per hour, including the increase under General Order No. 27. Pieceworker F, having exceeded the minimum rate of 58 cents per hour for the March pay period, receives back pay at the 60 cent rate.

(m) *Example 6.*—Pieceworker G, guaranteed a 58 cent minimum hourly rate by Supplement 4, worked a total of 268 hours in August, 1918, divided as follows: 50 straight time hours on hourly work at 58 cent rate, 158 straight time hours on piecework, average earnings per hour 65 cents, 20 hours overtime on hourly work at the rate of one and one-half time, or 58 plus 29, equaling 87 cents per hour, and 40 hours overtime on piecework, or 65 plus 32.50, equaling 7.50 cents per hour (as per Art. II, Sec. A); the total earnings for the August pay period are as follows:

50 hours at 58c per hour.....	\$29.00
158 hours at 65c per hour.....	102.70
20 hours at 87c per hour.....	17.40
40 hours at 97.50c per hour.....	39.00
Total.....	188.10

GENERAL APPLICATION OF INCREASES SUPPLEMENT 4 TO GENERAL ORDER 27.

ARTICLE II.

(a) The increases provided for in Supplement No. 4 to General Order No. 27 apply only to hourly, daily, weekly, or monthly rates, with the proviso that in no case shall a pieceworker be compensated for service rendered from January 1, 1918, to July 31, 1918, or thereafter, at a less rate per hour, for each straight time hour worked, than the minimum rate established for the hourly worker, as per the respective classifications. Effective August 1, 1918, the one and one-half time rate for overtime applies to pieceworkers as well as to hourly rated employees.

(b) Increases provided for in General Order No. 27 for hourly, daily, weekly and monthly paid employees, were canceled with the issuance of Supplement No. 4, and in no manner refer to or affect the increases provided for in Supplement No. 4 to General Order No. 27.

(c) The hours of service and overtime provisions of Supplement 4, Article IV, Section 2, do not apply to supervisory forces on monthly salary, referred to in Supplement 4, Article III, Section 5.

(d) Monthly supervisory forces specified in Supplement 4, Article III, Section 5, assigned to inspect new equipment under construction by contract, shall receive the salary increase of Forty (\$40) dollars per month.

(e) Excepting salaried supervisory forces and coach cleaners, employees coming within the classifications specified in Supplement No. 4 to General Order No. 27, shall be paid for overtime as provided in Section 2, Article IV, of Supplement No. 4.

(f) Employees voluntarily leaving the service.—The amount accruing under the provisions of Supplement 4 to General Order No. 27 will not accrue to those employees who left the service voluntarily to accept or secure employment at some other point on the same railroad or on another railroad, or elsewhere, because remaining in the service at the point employed, unless transferred, was the consideration upon which the promise to make the increases effective as of January 1, 1918, was based.

ARTICLE III.

RATES BASED UPON YEARS OF EXPERIENCE.

Supplement No. 4, Article II, Sections 2, 2-A and 2-B.

(a) Employees performing work recognized as mechanics' work in the respective trades, who by agreement with duly authorized committees representing the craft or crafts, have had their rates leveled up to that of the mechanic, shall receive the mechanics' rate as per Article II, Sections 1 and 1-A; otherwise Article II, Sections 2, 2-A and 2-B will apply. The period of experience on mechanics' work, in the trade employed, shall be cumulative.

Example 7.—Employee H worked:

- 12 months on machinists' work for railroad C,
- 6 months on machinists' work in navy yards D,
- 12 months on machinists' work in manufacturing plant E,
- 18 months on machinists' work for railroad by whom now employed.

Total, 4 years.

Such employees should be paid the machinists' rate.

(b) Nothing in the above section shall be construed to mean that mechanics of the respective trades who have qualified as such in other industries, shall be paid less than the minimum rates specified in Article II, Sections 1 and 1-A of Supplement No. 4, upon entering railroad service.

ARTICLE IV.

EXPENSE ALLOWANCE.

Sections 4 and 5, Article IV, Sup. No. 4 to General Order No. 27.

The allowance for expenses provided for in Section 4, Supplement No. 4 to General Order No. 27, is the same as shown in Section 5, and is at the rate of \$2.00 per day for three meals and lodging; 50 cents per meal, 50 cents for lodging. It is not intended to make this feature retroactive prior to August 1, 1918.

ARTICLE V.

SUPERVISORY FORCES.

Section 4, Article III, Supplement 4 to General Order 27.

This section applies to minor supervisory forces who are held responsible for the work of their gang, have been so recognized, and who shall receive 5 cents per hour in excess of the minimum hourly rate established for the craft.

ARTICLE VI.

WHEEL SHOP EMPLOYEES.

General Order 27, Supplement 4, Article I, Section 1 and 1-B.

(a) Employees boring and turning wheels, and turning axles in wheel shop, are classified as machinists by Section 1, Article I, of Supplement No. 4 to General Order No. 27.

(b) Employees pressing on and off wheels are classified as machinists' helpers by Section 1-B, Article I, of Supplement No. 4 to General Order No. 27, and receive an increase of 13 cents per hour over rate in effect January 1, 1918, prior to application of General Order No. 27, with a minimum guaranteed rate of 45 cents per hour.

ARTICLE VII.

FLUE WORK.

Supplement No. 4, Article I, Section 2 and 2-B.

- (a) Flue work, boiler department, includes flue welders under boiler foremen.
- (b) Heaters and helpers assisting welders shall be classed as boilermaker helpers.

ARTICLE VIII.

RIVET HEATERS.

(a) Include rivet heaters in Supplement No. 4, Article I, Section 2-B. Rivet heaters under 18 years of age shall be paid 25 cents per hour until they reach the age of 18, and thereafter helpers' rates.

(b) Rivet heaters in Supplement No. 4, Article I, Section 6-B, under 18 years of age shall be paid 25 cents per hour until they reach the age of 18, and thereafter helpers' rates.

ARTICLE IX.

ELECTRICAL WORKERS.

Supplement No. 4, Article I, Section 5 and 5-A.

It is not necessary for an electrical worker to be competent to perform all items of work specified. Employees skilled in any of this work shall be paid the rate established for the respective class.

ARTICLE X.

MATERIAL CARRIERS AND HELPERS.

(a) Material carriers in Supplement No. 4, Article I, Section 6-B, applies only to employees regularly engaged in selecting and distributing material to mechanics in car department.

(b) Laborers shall not be classified as helpers in the seven basic trades, unless they actually perform work recognized as helpers' work.

ARTICLE XI.

LOCOMOTIVE CRANE OPERATORS.

Section 6, Article I, Supplement No. 4 to General Order No. 27.

Locomotive crane operators, when employed in the car and locomotive shop yards, shall be considered under the same classification as "wrecking derrick engineer" in Section 6, Article I, Supplement No. 4 to General Order No. 27, and receive 13 cents per hour over the rate in effect January 1, 1918, prior to the application of General Order No. 27, with a guaranteed minimum of 58 cents per hour. (Where employed in other departments they shall be considered under the same classification as pile driver, ditching and hoisting engineers, in Article I, Section b of Supplement No. 8 to General Order No. 27.)

ARTICLE XII.

DERRICK ENGINEER.

Section 6, Article I, Supplement No. 4 to General Order No. 27.

"Wrecking Derrick Engineers" covers the engineer operating a power driven crane employed principally for clearing up wrecks.

ARTICLE XIII.

MOLDERS AND HELPERS.

CUPOLA TENDERS.

Supplement No. 4, Article I, Sections 7 and 7-B.

(a) A cupola tender is interpreted to be one who supervises the cupola and prescribes the charge, the fuel to be used and drawing the melt.

(b) Cupola tender helpers shall receive an increase of 13 cents per hour over rates in effect as of January 1, 1918, prior to the application of General Order No. 27, with a guaranteed minimum rate of 45 cents per hour.

(c) Employees in charge of brass melting in foundry shall receive not less than the molder's minimum rate, and helpers the same as helpers in Section (b) of this Article.

ARTICLE XIV.

These interpretations shall apply to all addenda, amendments, and interpretations to Supplement No. 4 to General Order No. 27, from their respective effective dates.

UNION SCALES IN THE BAKERY, MILLWORK, AND NEWSPAPER PRINTING TRADES.

The union scales of wages and hours of labor as of May 15, 1918, and May 15, 1917, for the principal occupations in the building, granite and stone, and metal trades, and in freight handling have been published in the MONTHLY LABOR REVIEW as follows: In the September, 1918, issue, for important industrial cities of the North Atlantic division of the United States; in the October issue, for the leading industrial cities of the North Central States; and in the November issue, for the leading cities of the South Atlantic, South Central, and Western States. In the December issue was published the scale as of the same dates for the principal occupations in the bakery, millwork, and printing trades, and of chauffeurs, teamsters, and drivers, for the leading industrial cities of the North Atlantic and South Atlantic States. In continuation of this subject there is published in this issue of the REVIEW the union scale as of the same dates for the principal occupations in the bakery, millwork, and newspaper printing trades in the leading industrial cities of the North Central, South Central, and Western States. Known changes since May 15, 1918, are indicated in footnotes. The scales as of the two dates are printed in parallel columns for convenient comparison 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.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917.

BAKERY TRADES.

BAKERS.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL.									
Chicago, Ill.:									
Hand bakeries—									
Foremen, spongers, and oven men, day work, unions A and B.....	Cents. 46.3	Dolls. 25.00	1 75c ¹	2 1	9 - 9 - 54	.....	Cents. 42.6	Dolls. 23.00	9 - 9 - 54
Foremen, spongers, and oven men, day work, union C.....	46.3	25.00	1 75c	3 1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54

¹ Rate in cents per hour.

² For Sundays; holidays off with pay for some, time and one-half for others.

³ For Sundays; holidays off with pay.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

BAKERY TRADES—Continued.

BAKERS—Continued.

Geographical division, city, and occupation.	May 15, 1918.				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday 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.	
NORTH CENTRAL—contd.									
Chicago, Ill.—Continued.									
Hand bakeries—Concld.									
Foremen, spongers, and oven men, day work, union D.....	Cents. 44.4	Dolls. 24.00	1 ^{75c}	2 ¹	9-9-54		Cents. 40.7	Dolls. 22.00	9-9-54
Foremen, spongers, and oven men, night work, unions A and B.....	51.9	28.00	1 ^{75c}	3 ¹	9-9-54		46.3	25.00	9-9-54
Foremen, spongers, and oven men, night work, union C.....	48.1	26.00	1 ^{75c}	4 ¹	9-9-54		40.7	22.00	9-9-54
Second hands, day work, unions A and B.....	42.6	23.00	1 ^{75c}	3 ¹	9-9-54		38.9	21.00	9-9-54
Second hands, day work, union C.....	42.6	23.00	1 ^{75c}	4 ¹	9-9-54		35.2	19.00	9-9-54
Second hands, day work, union D.....	40.7	22.00	1 ^{75c}	2 ¹	9-9-54		37.0	20.00	9-9-54
Second hands, night work, unions A and B.....	48.1	26.00	1 ^{75c}	3 ¹	9-9-54		42.6	23.00	9-9-54
Second hands, night work, union C.....	44.4	24.00	1 ^{75c}	4 ¹	9-9-54		37.0	20.00	9-9-54
Third hands, day work, union A.....	38.9	21.00	1 ^{75c}	4 ¹	9-9-54		35.2	19.00	9-9-54
Third hands, day work, union B.....	35.2	19.00	1 ^{75c}	6 ¹	9-9-54		31.5	17.00	9-9-54
Third hands, day work, union C.....	38.9	21.00	1 ^{75c}	4 ¹	9-9-54		31.5	17.00	9-9-54
Third hands, night work, union A.....	44.4	24.00	1 ^{75c}	4 ¹	9-9-54		38.9	21.00	9-9-54
Third hands, night work, Union B.....	40.7	22.00	1 ^{75c}	6 ¹	9-9-54		35.2	19.00	9-9-54
Third hands, night work, union C.....	40.7	22.00	1 ^{75c}	4 ¹	9-9-54		33.3	18.00	9-9-54
Machine bakeries—									
Foremen, spongers, and oven men, day work, union B.....	52.1	25.00	1 ^{75c}	2 ¹	8-8-48		47.9	23.00	8-8-48
Foremen, spongers, and oven men, day work, union D.....	50.0	24.00	1 ^{75c}	2 ¹	8-8-48		(6)	(6)	(6)
Foremen, spongers, and oven men, night work, unions B and D.....	58.3	28.00	1 ^{75c}	2 ¹	8-8-48		52.1	25.00	8-8-48
Foremen, spongers, and oven men, night work, union D.....	54.2	26.00	1 ^{75c}	2 ¹	8-8-48		(6)	(6)	(6)
Second hands, day work, union B.....	47.9	23.00	1 ^{75c}	2 ¹	8-8-48		43.8	21.00	8-8-48
Second hands, day work, union D.....	45.8	22.00	1 ^{75c}	2 ¹	8-8-48		(6)	(6)	(6)
Second hands, night work, unions B and D.....	54.2	26.00	1 ^{75c}	2 ¹	8-8-48		47.9	23.00	8-8-48
Second hands, night work, union D.....	50.0	24.00	1 ^{75c}	2 ¹	8-8-48		(6)	(6)	(6)
Hebrew bread—									
Foremen.....	62.7	32.00	1 ^{85c}	7 ¹	8½-8½-51		54.9	28.00	8½-8½-51
Second hands.....	56.9	29.00	1 ^{75c}	7 ¹	8½-8½-51		49.0	25.00	8½-8½-51
Third hands.....	52.9	27.00	1 ^{75c}	7 ¹	8½-8½-51		45.1	23.00	8½-8½-51

¹ Rate in cents per hour.

² For Sundays; work on holidays prohibited.

³ For Sundays; holidays off for some, time and one-half for others.

⁴ For Sundays; holidays off with pay.

⁵ For Sundays; for holidays, time and one-half.

⁶ No scale in effect on May 15, 1917.

⁷ For Sundays; for Hebrew holidays, time and one-half; do not work on other holidays.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

BAKERY TRADES—Continued.

BAKERS—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—contd.									
Cincinnati, Ohio:									
Hand bakeries—									
Foremen	40.7	22.00	1 1/2	2 1	9-9-54		Cents. 37.0	Dolls. 20.00	9-9-54
Third hands	27.8	15.00	1 1/2	2 1	9-9-54		24.1	13.00	9-9-54
Benchmen	33.3	18.00	1 1/2	2 1	9-9-54		29.6	16.00	9-9-54
Oven men or mixers	37.0	20.00	1 1/2	2 1	9-9-54		33.3	18.00	9-9-54
Helpers	25.9	14.00	1 1/2	2 1	9-9-54		22.2	12.00	9-9-54
Machine bakeries—									
Foremen	52.1	25.00	1 1/2	2 1	8-8-48		47.9	23.00	8-8-48
Benchmen	37.5	18.00	1 1/2	2 1	8-8-48		33.3	16.00	8-8-48
Oven men or mixers	43.8	21.00	1 1/2	2 1	8-8-48		39.6	19.00	8-8-48
Helpers	29.2	14.00	1 1/2	2 1	8-8-48		25.0	12.00	8-8-48
Cleveland, Ohio:									
First hands	341.7	20.00	4 60c	1	8-8-48		35.3	18.00	8 1/2-8 1/2-51
Second hands	37.5	18.00	4 50c	1	8-8-48		31.4	16.00	8 1/2-8 1/2-51
Bohemian bread—									
First hands	52.1	25.00	4 65c	6 2	8-8-48		41.7	20.00	8-8-48
Second hands	50.0	24.00	4 65c	6 2	8-8-48		39.6	19.00	8-8-48
Third hands	45.8	22.00	4 65c	6 2	8-8-48		35.4	17.00	8-8-48
Mixers	62.5	30.00	4 65c	6 1	8-8-48		43.8	21.00	8-8-48
Hebrew bread—									
Bench hands	62.5	30.00	4 75c	6 1	8-8-48		41.7	20.00	8-8-48
Mixers	68.8	33.00	4 75c	6 1	8-8-48		54.2	26.00	8-8-48
Oven men	72.9	35.00	4 90c	6 1	8-8-48		52.1	25.00	8-8-48
Columbus, Ohio:									
Hand bakeries—									
First hands	46.3	25.00	1 1/2	7 1	9-9-54		40.7	22.00	9-9-54
Benchmen	37.0	20.00	1 1/2	7 1	9-9-54		31.5	17.00	9-9-54
Mixers or spongers	42.6	23.00	1 1/2	7 1	9-9-54		37.0	20.00	9-9-54
Machine bakeries—									
Foremen	61.1	33.00	1 1/2	7 1	9-9-54		55.6	30.00	9-9-54
First oven hands	42.6	23.00	1 1/2	7 1	9-9-54		37.0	20.00	9-9-54
Second oven hands	40.7	22.00	1 1/2	7 1	9-9-54		35.2	19.00	9-9-54
Bench hands	37.0	20.00	1 1/2	7 1	9-9-54		31.5	17.00	9-9-54
Mixers or spongers	42.6	23.00	1 1/2	7 1	9-9-54		37.0	20.00	9-9-54
Davenport, Iowa, and Moline and Rock Island, Ill.:									
Foremen, day work	55.6	30.00	8 75c	9 1	9-9-54		37.0	20.00	9-9-54
Foremen, night work	59.3	32.00	8 85c	9 1	9-9-54		42.6	23.00	9-9-54
Bakers, 1-man shops, day work	50.0	27.00	8 65c	9 1	9-9-54		35.2	19.00	9-9-54
Bakers, 1-man shops, night work	55.6	30.00	8 75c	9 1	9-9-54		38.9	21.00	9-9-54
Benchmen, and oven men, day work	46.3	25.00	8 60c	9 1	9-9-54		31.5	17.00	9-9-54
Benchmen, and oven men, night work	50.0	27.00	8 70c	9 1	9-9-54		35.2	19.00	9-9-54
Detroit, Mich.:									
Foremen	54.9	28.00	1 1/2	2	8 1/2-8 1/2-51		49.0	25.00	8 1/2-8 1/2-51
Benchmen	47.1	24.00	1 1/2	2	8 1/2-8 1/2-51		41.2	21.00	8 1/2-8 1/2-51
Dough men or oven men	51.0	26.00	1 1/2	2	8 1/2-8 1/2-51		45.1	23.00	8 1/2-8 1/2-51

¹ Limited to 2 hours per day.

² For Sundays; for holidays, time and one-half.

³ Scale became 62.5 cents on June 1, 1918.

⁴ Rate in cents per hour.

⁵ For Sundays; work on holidays prohibited.

⁶ For Sundays; Hebrew holidays off with pay.

⁷ For Sundays; for Labor Day, Christmas, and July 4, double time; and other holidays, single time.

⁸ Rate in cents per hour, limited to 4 hours per week.

⁹ For Sundays; work on Labor Day prohibited; for other holidays, double time.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

BAKERY TRADES—Continued.

BAKERS—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—contd.									
Detroit, Mich.—Concluded.									
Hebrew bread—									
Foremen, 1 oven, day work	70.8	34.00	1 75c	1	2 8 - 8 - 48	60.4	29.00	8 - 8 - 48	
Foremen, 1 oven, night work	72.9	35.00	1 75c	1	2 8 - 8 - 48	62.5	30.00	8 - 8 - 48	
Foremen, 2 ovens, day work	75.0	36.00	1 75c	1	2 8 - 8 - 48	64.6	31.00	8 - 8 - 48	
Foremen, 2 ovens, night work	77.1	37.00	1 75c	1	2 8 - 8 - 48	66.7	32.00	8 - 8 - 48	
Second hands, day work	58.3	28.00	1 70c	1	2 8 - 8 - 48	54.2	26.00	8 - 8 - 48	
Second hands, night work	62.5	30.00	1 70c	1	2 8 - 8 - 48	56.3	27.00	8 - 8 - 48	
Third hands, day work	58.3	28.00	1 65c	1	2 8 - 8 - 48	50.0	24.00	8 - 8 - 48	
Third hands, night work	62.5	30.00	1 65c	1	2 8 - 8 - 48	52.1	25.00	8 - 8 - 48	
Polish bread—									
First hands, oven men or mixers, day work	58.3	28.00	1 80c	3 1	8 - 8 - 48	50.0	24.00	8 - 8 - 48	
First hands, oven men or mixers, night work	62.5	30.00	1 80c	3 1	8 - 8 - 48	52.1	25.00	8 - 8 - 48	
Second hands, benchmen, day work	52.1	25.00	1 70c	3 1	8 - 8 - 48	43.8	21.00	8 - 8 - 48	
Second hands, benchmen, night work	56.3	27.00	1 70c	3 1	8 - 8 - 48	45.8	22.00	8 - 8 - 48	
Third hands, day work	45.8	22.00	1 60c	3 1	8 - 8 - 48	37.5	18.00	8 - 8 - 48	
Third hands, night work	50.0	24.00	1 60c	3 1	8 - 8 - 48	39.6	19.00	8 - 8 - 48	
Indianapolis, Ind.:									
Foremen	46.3	25.00	4 1 1/2	3 1	9 - 9 - 54	36.8	21.00	9 1/2 - 9 1/2 - 57	
Second hands	38.9	21.00	4 1 1/2	3 1	9 - 9 - 54	33.3	19.00	9 1/2 - 9 1/2 - 57	
Third hands	30.0	16.20	4 1 1/2	3 1	9 - 9 - 54	24.6	14.00	9 1/2 - 9 1/2 - 57	
Benchmen	35.2	19.00	4 1 1/2	3 1	9 - 9 - 54	29.8	17.00	9 1/2 - 9 1/2 - 57	
Kansas City, Mo.:									
Hand bakeries—									
Foremen	57.4	31.00	5 95c	3 1	9 - 9 - 54	53.7	29.00	9 - 9 - 54	
Benchmen	44.4	24.00	5 75c	3 1	9 - 9 - 54	40.7	22.00	9 - 9 - 54	
Oven men	48.1	26.00	5 75c	3 1	9 - 9 - 54	44.4	24.00	9 - 9 - 54	
Spongers	48.1	26.00	5 75c	3 1	9 - 9 - 54	44.4	24.00	9 - 9 - 54	
Machine bakeries—									
Foremen	64.6	31.00	5 95c	3 1	8 - 8 - 48	60.4	29.00	8 - 8 - 48	
Benchmen	50.0	24.00	5 75c	3 1	8 - 8 - 48	45.8	22.00	8 - 8 - 48	
Drawers	52.1	25.00	5 75c	3 1	8 - 8 - 48	47.9	23.00	8 - 8 - 48	
Oven men	54.2	26.00	5 75c	3 1	8 - 8 - 48	50.0	24.00	8 - 8 - 48	
Spongers or mixers	54.2	26.00	5 75c	3 1	8 - 8 - 48	50.0	24.00	8 - 8 - 48	
Milwaukee, Wis.:									
Foremen	638.6	22.00	1 60c	7 1	9 1/2 - 9 1/2 - 57	35.1	20.00	9 1/2 - 9 1/2 - 57	
Benchmen	635.1	20.00	1 50c	7 1	9 1/2 - 9 1/2 - 57	31.6	18.00	9 1/2 - 9 1/2 - 57	
Hebrew bread—									
Foremen	647.1	24.00	1 60c	8 1	8 1/2 - 8 1/2 - 51	38.6	22.00	9 1/2 - 9 1/2 - 57	
Second hands or benchmen	43.1	22.00	1 50c	8 1	8 1/2 - 8 1/2 - 51	33.3	19.00	9 1/2 - 9 1/2 - 57	
Third hands	39.2	20.00	1 50c	8 1	8 1/2 - 8 1/2 - 51	31.6	18.00	9 1/2 - 9 1/2 - 57	

¹ Rate in cents per hour.

² For Sundays, 8 hours; do not work on Fridays.

³ For Sundays; for holidays, double time.

⁴ Double time after 6 hours overtime per week.

⁵ Rate in cents per hour for 5 hours, double time thereafter.

⁶ More than half of the members received more than the scale; amount not reported.

⁷ For Sundays; work on holidays prohibited.

⁸ For Sundays; for Labor Day and Jewish holidays overtime rate.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

BAKERY TRADES—Continued.

BAKERS—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concluded.									
Minneapolis, Minn.:									
Foremen, 5 or more men...	55.6	30.00	1 50c	1	9 - 9 - 54		44.4	24.00	9 - 9 - 54
Foremen, 2 to 4 men...	48.1	26.00	1 54c	1	9 - 9 - 54		40.7	22.00	9 - 9 - 54
Foremen, 1-man shops, day work...	40.7	22.00	1 50c	1	9 - 9 - 54		37.0	20.00	9 - 9 - 54
Foremen, 1-man shops, night work...	44.4	24.00	1 50c	1	9 - 9 - 54		37.0	20.00	9 - 9 - 54
Benchmen...	37.0	20.00	1 50c	1	9 - 9 - 54		33.3	18.00	9 - 9 - 54
Dough mixers, and first oven man...	44.4	24.00	1 50c	1	9 - 9 - 54		37.0	20.00	9 - 9 - 54
Hebrew bread—									
Foremen...	51.9	28.00	1 60c	1	9 - 9 - 54		48.1	26.00	9 - 9 - 54
Third hands...	37.0	20.00	1 50c	1	9 - 9 - 54		33.3	18.00	9 - 9 - 54
Benchmen...	42.6	23.00	1 50c	1	9 - 9 - 54		38.9	21.00	9 - 9 - 54
Peoria, Ill.:									
Foremen, 4 or more men...	48.1	26.00	1 50c	2	9 - 9 - 54		46.3	25.00	9 - 9 - 54
Foremen, less than 4 men...	44.4	24.00	1 50c	2	9 - 9 - 54		42.6	23.00	9 - 9 - 54
Benchmen...	37.0	20.00	1 50c	2	9 - 9 - 54		35.2	19.00	9 - 9 - 54
Oven men and spongers...	40.7	22.00	1 50c	2	9 - 9 - 54		38.9	21.00	9 - 9 - 54
St. Louis, Mo.:									
Hand bakeries—									
Foremen...	43.5	23.50	1 60c	1	9 - 9 - 54		35.2	19.00	9 - 9 - 54
Second hands or bench- men, less than 5-man shops...	38.0	20.50	1 60c	1	9 - 9 - 54		29.6	16.00	9 - 9 - 54
Machine bakeries—									
Foremen, 5 or more men...	55.2	26.50	1 60c	1	8 - 8 - 48		45.8	22.00	8 - 8 - 48
Foremen, less than 5 men...	49.0	23.50	1 60c	1	8 - 8 - 48		39.6	19.00	8 - 8 - 48
First benchmen, 5-man shops...	44.8	21.50	1 60c	1	8 - 8 - 48		33.3	16.00	8 - 8 - 48
Second benchmen, 5-man shops and over...	42.7	20.50	1 60c	1	8 - 8 - 48		33.3	16.00	8 - 8 - 48
Oven men, 5-man shops and over...	49.0	23.50	1 60c	1	8 - 8 - 48		39.6	19.00	8 - 8 - 48
Assistant oven men, 5- man shops and over...	44.8	21.50	1 60c	1	8 - 8 - 48		35.4	17.00	8 - 8 - 48
Helpers, 5-man shops and over...	30.2	14.50	1 40c	1	8 - 8 - 48		25.0	12.00	8 - 8 - 48
Hebrew bread—									
Foremen...	54.9	28.00	1 60c	1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		49.0	25.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Second hands...	47.1	24.00	1 60c	1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		41.2	21.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Third hands...	43.1	22.00	1 60c	1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		37.3	19.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
St. Paul, Minn.:									
First hands...	42.6	23.00	1 50c	3 1	9 - 9 - 54		38.9	21.00	9 - 9 - 54
Benchmen...	37.0	20.00	1 50c	3 1	9 - 9 - 54		33.3	18.00	9 - 9 - 54
Oven men...	38.9	21.00	1 50c	3 1	9 - 9 - 54		35.2	19.00	9 - 9 - 54
SOUTH CENTRAL.									
Dallas, Tex.:									
Foremen, 5 or more men...	58.8	30.00	1 1/2	4 1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		49.0	25.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Foremen, less than 5 men...	52.9	27.00	1 1/2	4 1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		43.1	22.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Second hands...	47.1	24.00	1 1/2	4 1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		39.2	20.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Third hands...	41.2	21.00	1 1/2	4 1	8 ¹ / ₂ - 8 ¹ / ₂ - 51		35.3	18.00	8 ¹ / ₂ - 8 ¹ / ₂ - 51
Little Rock, Ark.:									
Foremen...	40.3	25.00	1 1/2	6 1 1/2	10 - 12 - 62		(7)	(7)	(7)
First hands...	32.3	20.00	1 1/2	6 1 1/2	10 - 12 - 62		(7)	(7)	(7)
Bench hands...	29.0	18.00	1 1/2	6 1 1/2	10 - 12 - 62		(7)	(7)	(7)

¹ Rate in cents per hour.

² More than half of the members received more than the scale; amount not reported.

³ For Sundays; holidays off with pay.

⁴ For Sundays; for holidays double time.

⁵ Scale became 48.4 cents on Aug. 15, 1918.

⁶ For Sundays and Christmas; for other holidays single time.

⁷ Not organized on May 15, 1917.

⁸ Scale became 40.3 cents on Aug. 15, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

BAKERY TRADES—Concluded.

BAKERS—Concluded.

Geographical division, city, and occupation.	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.	
	Per hour.	Per week, full time	For over- time.	For Sun- days and holi- days.			Per hour.	Per week, full time.				
WESTERN.												
Butte, Mont.:			<i>Regular rate multiplied by—</i>									
Foremen and mixers.....	81.3	39.00	1½	1	8 - 8 - 48	.....	68.8	33.00	8 - 8 - 48		
Bench hands.....	68.8	33.00	1½	1	8 - 8 - 48	.....	57.3	27.50	8 - 8 - 48		
Denver, Colo.:												
Hand bakeries—												
Foremen, 5 or more men.	155.6	30.00	2	60c	1	9 - 9 - 54	.....	50.0	27.00	9 - 9 - 54	
Foremen, less than 5 men.	146.3	25.00	2	60c	1	9 - 9 - 54	.....	42.6	23.00	9 - 9 - 54	
Benchmen.....	138.9	21.00	2	60c	1	9 - 9 - 54	.....	35.2	19.00	9 - 9 - 54	
Mixers.....	42.6	23.00	2	60c	1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54	
Oven men.....	42.6	23.00	2	60c	1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54	
Machine bakeries—												
Bench hands.....	143.8	21.00	2	60c	1	8 - 8 - 48	.....	35.2	19.00	9 - 9 - 54	
Hebrew bread—												
Foremen or oven men...	55.6	30.00	2	75c	1	9 - 9 - 54	.....	42.6	23.00	9 - 9 - 54	
Bench hands.....	51.9	25.00	2	75c	1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54	
Los Angeles, Cal.:												
Foremen.....	48.1	26.00	1½	1	9 - 9 - 54	.....	48.1	26.00	9 - 9 - 54		
Third hands.....	25.9	14.00	1½	1	9 - 9 - 54	.....	25.9	14.00	9 - 9 - 54		
Bench hands.....	37.0	20.00	1½	1	9 - 9 - 54	.....	37.0	20.00	9 - 9 - 54		
Oven men or mixers.....	42.6	23.00	1½	1	9 - 9 - 54	.....	42.6	23.00	9 - 9 - 54		
Hebrew bread—												
Foremen.....	52.9	27.00	1½	1	8½ - 8½ - 51	.....	52.9	27.00	8½ - 8½ - 51		
Bench hands.....	41.2	21.00	1½	1	8½ - 8½ - 51	.....	41.2	21.00	8½ - 8½ - 51		
Portland, Oreg.:												
Hand bakeries—												
Foremen.....	66.7	32.00	2	1½	1	8 - 8 - 48	.....	51.0	26.00	8½ - 8½ - 51	
Benchmen.....	58.3	25.00	2	1½	1	8 - 8 - 48	.....	39.2	20.00	8½ - 8½ - 51	
Benchmen, partly oven work.....	62.5	30.00	2	1½	1	8 - 8 - 48	.....	43.1	22.00	8½ - 8½ - 51	
Machine work—												
Benchmen.....	58.3	25.00	2	1½	1	8 - 8 - 48	.....	39.2	20.00	8½ - 8½ - 51	
Oven men.....	66.7	32.00	2	1½	1	8 - 8 - 48	.....	51.0	26.00	8½ - 8½ - 51	
Salt Lake City, Utah:												
Foremen.....	144.4	24.00	1½	1	9 - 9 - 54	.....	44.4	24.00	9 - 9 - 54		
Bakers, working alone.....	138.9	21.00	1½	1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54		
Benchmen.....	135.2	19.00	1½	1	9 - 9 - 54	.....	35.2	19.00	9 - 9 - 54		
Oven men.....	140.7	22.00	1½	1	9 - 9 - 54	.....	40.7	22.00	9 - 9 - 54		
San Francisco, Cal.:												
Hand bakeries—												
Foremen and oven men.	55.6	30.00	2	100c	1	9 - 9 - 54	.....	46.3	25.00	9 - 9 - 54	
Benchmen, partly oven work.....	51.9	25.00	2	100c	1	9 - 9 - 54	.....	42.6	23.00	9 - 9 - 54	
Benchmen, or first hands.	50.0	27.00	2	75c	1	9 - 9 - 54	.....	37.0	20.00	9 - 9 - 54	
Benchmen, or second hands.....	50.0	27.00	2	75c	1	9 - 9 - 54	.....	38.9	21.00	9 - 9 - 54	
Machine bakeries—												
Foremen and oven men.	62.5	30.00	2	100c	1	8 - 8 - 48	.....	52.1	25.00	8 - 8 - 48	
Benchmen.....	56.3	27.00	2	75c	1	8 - 8 - 48	.....	41.7	20.00	8 - 8 - 48	
Benchmen, partly oven work.....	58.3	28.00	2	100c	1	8 - 8 - 48	.....	45.8	22.00	8 - 8 - 48	
Seattle, Wash.:												
Foremen, day work.....	75.0	36.00	2	1	8 - 8 - 48	.....	56.3	27.00	8 - 8 - 48		
Foremen, night work.....	87.5	42.00	2	1	8 - 8 - 48	.....	56.3	27.00	8 - 8 - 48		
Benchmen, day work.....	62.5	30.00	2	1	8 - 8 - 48	.....	45.8	22.00	8 - 8 - 48		
Benchmen, night work.....	75.0	36.00	2	1	8 - 8 - 48	.....	45.8	22.00	8 - 8 - 48		
Mixers and oven men, day work.....	68.8	33.00	2	1	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48		
Mixers and oven men, night work.....	81.3	39.00	2	1	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48		
Spokane, Wash.:												
Foremen.....	62.5	30.00	1½	41	8 - 8 - 48	.....	54.2	26.00	8 - 8 - 48		
Benchmen.....	54.2	26.00	1½	41	8 - 8 - 48	.....	45.8	22.00	8 - 8 - 48		
Mixers and oven men.....	62.5	30.00	1½	41	8 - 8 - 48	.....	52.1	25.00	8 - 8 - 48		

¹ More than half of the members received more than the scale; amount not reported.

² Rate in cents per hour.

³ Double time after 2 hours.

⁴ For Sundays; for holidays double time.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND, MAY 15, 1917—Continued.

MILLWORK.

CARPENTERS.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL.									
	<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	21.15	8½ - 4½ - 47
Cleveland, 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..	50.0	27.00	1½	1½	9 - 9 - 54	.....	37.5	19.88	9 - 8 - 53
Grand Rapids, Mich.....	36.0	19.44	1	1	9 - 9 - 54	.....	36.0	19.44	9 - 9 - 54
Kansas City, Mo.....	40.0	21.60	1½	2	9 - 9 - 54	.....	40.0	21.60	9 - 9 - 54
Milwaukee, Wis.....	40.0	20.00	1½	2	9 - 5 - 50	12	40.0	20.00	9 - 5 - 50
Minneapolis, Minn.....	35.0	18.90	1	1	9 - 9 - 54	.....	35.0	18.90	9 - 9 - 54
Omaha, Nebr.....	40.0	21.60	1½	1½	9 - 9 - 54	.....	30.0	16.20	9 - 9 - 54
Peoria, Ill.....	45.0	24.30	1	2	9 - 9 - 54	.....	35.0	18.90	9 - 9 - 54
St. Louis, Mo.....	47.5	22.80	2	2	8½ - 4½ - 48	12	38.0	18.24	8½ - 4½ - 48
St. Paul, Minn.....	35.0	18.90	1	1	9 - 9 - 54	.....	35.0	18.90	9 - 9 - 54
SOUTH CENTRAL.									
Houston, Tex.....	50.0	24.00	1½	2	8 - 8 - 48	.....	(3)	(3)	(3)
Little Rock, Ark.: Benchmen.....	45.0	24.30	1½	2	9 - 9 - 54	.....	40.0	21.60	9 - 9 - 54
Machine men.....	40.0	21.60	1½	2	9 - 9 - 54	.....	37.5	20.25	9 - 9 - 54
Louisville, Ky.....	35.0	16.80	1½	2	8 - 8 - 48	.....	(5)	(5)	(5)
Memphis, Tenn.: Benchmen, turners, shap- ers, bill cutters, and molders.....	55.0	27.50	1½	2	9 - 5 - 50	12	42.5	21.25	9 - 5 - 50
Joiners, stickers, and tenoners.....	50.0	25.00	1½	2	9 - 5 - 50	12	40.0	20.00	9 - 5 - 50
Sanders and second turners	50.0	25.00	1½	2	9 - 5 - 50	12	37.5	18.75	9 - 5 - 50
Second molders.....	32.5	16.25	1½	2	9 - 5 - 50	12	32.5	16.25	9 - 5 - 50
Band and scroll sawyers and mortisers.....	30.0	15.00	1½	2	9 - 5 - 50	12	30.0	15.00	9 - 5 - 50
Nashville, Tenn.: Benchmen.....	42.5	21.25	1½	2	9 - 5 - 50	12	30.0	15.00	9 - 5 - 50
Machine men.....	45.0	22.50	1½	2	9 - 5 - 50	12	22.5	11.25	9 - 5 - 50
New Orleans, La.....	27.8	13.89	1½	2	9 - 5 - 50	12	25.0	12.50	9 - 5 - 50
WESTERN.									
Butte, Mont.....	75.0	36.00	1½	2	8 - 8 - 48	.....	75.0	36.00	8 - 8 - 48
Portland, Oreg.: Cabinet makers ⁷	55.0	26.40	1½	2	8 - 8 - 48	.....	(3)	(3)	(3)
Rip sawyers.....	50.0	24.00	1½	2	8 - 8 - 48	.....	(3)	(3)	(3)
Sash and door layout men	62.5	30.00	1½	2	8 - 8 - 48	.....	(3)	(3)	(3)
Turners.....	65.0	31.20	1½	2	8 - 8 - 48	.....	(3)	(3)	(3)
Salt Lake City, Utah.....	50.0	24.75	1½	1½	9 - 4½ - 49½	12	50.0	24.75	9 - 4½ - 49½
San Francisco, Cal.: Elbow sanders, mortisers, and tenoners.....	46.9	20.63	2	2	8 - 4 - 44	12	46.9	20.63	8 - 4 - 44

¹ Scale became 50 cents on June 1, 1918.

² Scale became 50 cents and 44 hours on June 14 and 55 cents on Oct. 1, 1918.

³ No scale in effect on May 15, 1917.

⁴ More than half of the members received more than the scale; amount not reported.

⁵ Not organized on May 15, 1917.

⁶ Scale became 87.5 cents on July 1, 1918.

⁷ Includes cabinet makers, stickermens, shapermen, planermen, band sawyers, stock cutters, trim sawyers, belt sanders, drum sanders, tenonmen, door stickers, frame makers, planing-mill benchmen, show-case makers, and sash and door clammers.

⁸ Scale became 62.5 cents, and 44 hours on June 1, 1918.

⁹ Scale became 62.5 cents on June 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

MILLWORK—Continued.

CARPENTERS—Concluded.

Geographical division, city, and occupation.	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.		
WESTERN—concluded.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
San Francisco, Cal.—Concl'd.	1 65.6	28.88	2	2	8 - 4 - 44	12	65.6	28.88	8 - 4 - 44	
Layers out, sash and door.	2 50.0	22.00	2	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	
Smoothers and molders.	1 68.8	30.25	2	2	8 - 4 - 44	12	68.8	30.25	8 - 4 - 44	
Stickermen, shapers, and matchers.	2 56.3	24.75	2	2	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Stock cutters ⁴ .	1 62.5	27.50	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Stock cutters, cabinet-work trim ⁵ .	2 50.0	24.00	2	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48	
Seattle, Wash.	6 50.0	24.00	2	2	8 - 8 - 48	.....	50.0	24.00	8 - 8 - 48	

GLAZIERS.

NORTH CENTRAL.										
Chicago, Ill.	7 72.5	31.90	1½	2	8 - 4 - 44	12	72.5	31.90	8 - 4 - 44	
Cleveland, Ohio.	8 55.0	24.20	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	28.80	8 - 8 - 48	
Indianapolis, Ind.	55.0	24.20	1½	2	8 - 4 - 44	12	55.0	24.20	8 - 4 - 44	
Kansas City, Mo.	60.0	28.80	9 1½	2	8 - 8 - 48	.....	55.0	26.40	8 - 8 - 48	
St. Louis, Mo.	62.5	27.50	2	2	8 - 4 - 44	12	57.5	25.30	8 - 4 - 44	
SOUTH CENTRAL.										
Dallas, Tex.	70.0	30.80	9 1½	2	8 - 4 - 44	12	60.0	26.40	8 - 4 - 44	
Houston, Tex.	50.0	24.00	1½	2	8 - 8 - 48	.....	(10)	(10)	(10)	
Memphis, Tenn.	37.5	20.25	9 1½	2	9 - 9 - 54	.....	37.5	20.25	9 - 9 - 54	
WESTERN.										
Butte, Mont.	90.0	39.60	2	2	8 - 4 - 44	12	74.5	35.75	8 - 8 - 48	
Denver, Colo.	55.0	26.40	1½	1½	8½ - 5½ - 48	12	45.0	21.60	8½ - 5½ - 48	
Portland, Oreg.:										
Inside.	56.3	24.75	1½	1½	8 - 4 - 44	12	43.8	19.25	8 - 4 - 44	
Outside.	62.5	27.50	1½	1½	8 - 4 - 44	12	56.3	24.75	8 - 4 - 44	
Salt Lake City, Utah.	60.0	28.80	1½	2	11 8 - 8 - 48	3	50.0	24.00	8 - 8 - 48	
San Francisco, Cal.	68.8	30.25	2	2	8 - 4 - 44	12	62.5	27.50	8 - 4 - 44	
Seattle, Wash.:										
Metal and lead.	150.0	22.00	13 1½	2	8 - 4 - 44	12	40.9	18.00	8 - 4 - 44	
Putty and plate.	140.0	26.40	13 1½	2	8 - 4 - 44	12	50.0	22.00	8 - 4 - 44	

¹ Scale became 75 cents on June 1, 1918.

² On stock for sash and doors, and putters-up, sash and doors.

³ Scale became 62.5 cents on June 1, 1918.

⁴ On sash and doors, sash stickers, roller sanders, and planemen.

⁵ And band sawyers, rip sawyers for stickers, trim sawyers, smoothers and molders, and turners.

⁶ More than half of the members received more than the scale; amount not reported.

⁷ Scale became 77.5 cents on June 1, 1918.

⁸ Scale became 60 cents on July 1, 1918.

⁹ Double time after midnight.

¹⁰ No scale in effect on May 15, 1917.

¹¹ 45 hours per week, June to August, inclusive.

¹² Scale became 60.4 cents on Aug. 1, 1918.

¹³ Double time after 10 p. m.

¹⁴ Scale became 75 cents on Aug. 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

MILLWORK—Concluded.

PAINTERS: Hardwood finishers.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Chicago, Ill.	141.0	20.30	1½	2	1 9 - 4½-49½	12	41.0	20.30	9 - 4½-49
Cincinnati, Ohio	32.5	16.25	1½	2	9 - 5 -50	12	32.5	16.25	9 - 5 -50½
Cleveland, Ohio	60.0	26.40	1½	2	8 - 4 -44	12	45.0	19.80	8 - 4 -44
Grand Rapids, Mich.	37.5	19.25	1½	2	9 - 9 -54	.....	30.6	16.50	9 - 9 -54
Kansas City, Mo.	55.0	26.40	1½	2	8 - 8 -48	.....	40.0	21.60	9 - 9 -54
Milwaukee, Wis.	42.5	18.70	1½	2	8 - 4 -44	12	37.5	18.56	9 - 4½-49
Bar fixtures	47.5	23.51	1½	2	9 - 4½-49½	12	37.5	18.56	9 - 4½-49½
St. Louis, Mo.	47.5	22.80	2	2	8½- 4½-48	12	36.0	17.28	8½- 4½-48
WESTERN.									
Denver, Colo.	56.3	27.00	1½	1½	8 - 8 -48	.....	50.0	24.00	8 - 8 -48
Salt Lake City, Utah	75.0	33.00	1½	1½	8 - 4 -44	12	62.5	27.50	8 - 4 -44
San Francisco, Cal.	62.5	30.00	2	2	8 - 8 -48	.....	50.0	24.00	8 - 8 -48
Seattle, Wash.	68.8	30.25	2	2	8 - 4 -44	12	53.1	25.50	8 - 8 -48

PRINTING AND PUBLISHING: NEWSPAPER.

COMPOSITORS: Day work.

NORTH CENTRAL.									
Chicago, Ill.:									
English	66.0	29.70	1½	6 1	6 7½- 7½-45	.....	62.0	27.90	6 7½- 7½-45
Bohemian	57.3	27.50	7 1½	1½	8 - 8 -48	.....	52.1	25.00	8 - 8 -48
German	62.5	25.00	2	2	8 - 8 -40	.....	62.5	25.00	8 - 8 -40
Norwegian	62.0	29.76	8 90c	8 90c	8 - 8 -48	.....	55.0	26.40	8 - 8 -48
Polish	57.3	27.50	7 1½	2	8 - 8 -48	.....	52.1	25.00	8 - 8 -48
Swedish	57.3	27.50	7 1½	2	8 - 8 -48	.....	52.1	25.00	8 - 8 -48
Cincinnati, Ohio	56.3	27.00	1½	1½	8 - 8 -48	.....	56.3	27.00	8 - 8 -48
Cleveland, Ohio:									
English	62.5	30.00	1½	1	8 - 8 -48	.....	62.5	30.00	8 - 8 -48
German	1056.3	27.00	1½	1½	10 8 - 8 -48	.....	50.0	24.00	8 - 8 -48
Hungarian (make up)	62.1	27.00	1½	2 1	11 7½- 6 -43½	.....	62.1	27.00	11 7½- 6 -43½
Hungarian	62.1	27.00	1½	2 1	11 7½- 6 -43½	.....	50.6	22.00	11 7½- 6 -43½
Hungarian, second shift	64.4	28.00	1½	2 1	11 7½- 6 -43½	.....	62.1	27.00	11 7½- 6 -43½
Columbus, Ohio:									
English	60.4	29.00	12 1½	13 2	8 - 8 -48	.....	53.3	28.00	8 - 8 -48
German	53.1	25.50	8 70c	8 70c	8 - 8 -48	.....	50.0	24.00	8 - 8 -48

1 Scale became 50 cents and 48 hours on June 1, 1918.

2 For Sundays; do not work on holidays.

3 Scale became 45 cents on July 8, 1918.

4 Scale became 45 cents on Oct. 1, 1918.

5 For Sundays, on 6-day newspapers, double time.

6 Actual hours worked; minimum 7 per day, 42 per week; maximum 8 per day, 48 per week.

7 Double time after 3 hours and on Saturday after completion of 48-hour week.

8 Rate in cents per hour.

9 And various bonuses. More than half of the members received more than the scale; amount not reported.

10 Scale became 50 cents and 42 hours on June 1, 1918.

11 6 days off each year with pay.

12 Double time after one hour.

13 For Sundays; for holidays, full day's pay for 6 hours' work.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

COMPOSITORS: Day work—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concl.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Davenport, Iowa, and Moline and Rock Island, Ill.	55.0	26.40	1½	2	8-8-48		47.9	23.00	8-8-48
Des Moines, Iowa.	52.1	25.00	1½	1½	8-8-48		50.0	24.00	8-8-48
Detroit, Mich.:									
English.	60.5	29.04	1½	1½	2 8-8-48		60.5	29.04	2 8-8-48
German.	55.0	22.00	2 70c	3 70c	8-0-40	(*)	55.0	22.00	4 8-0-40
Grand Rapids, Mich.	52.1	25.00	1½	1	8-8-48		46.9	22.50	8-8-48
Indianapolis, Ind.	56.3	27.00	1½	5 1½	8-8-48		56.3	27.00	8-8-48
Kansas City, Mo.	59.4	28.50	1½	6 1	8-8-48		59.4	28.50	8-8-48
Milwaukee, Wis.:									
English.	56.3	27.00	7 1½	2	8-8-48		54.2	26.00	8-8-48
German.	45.8	22.00	1½	2	8-8-48		45.8	22.00	8-8-48
Minneapolis, Minn.:									
English.	54.0	25.92	1½	10 2	8-8-48		54.0	25.92	8-8-48
German.	43.8	21.00	1½	2	8-8-48		40.6	19.50	8-8-48
Omaha, Nebr.:									
English and German.	53.1	25.50	1½	11 1½	8-8-48		53.1	25.50	8-8-48
Peoria, Ill.	49.6	23.33	1½	18 1	8-7-47		46.3	21.74	8-7-47
St. Louis, Mo.	63.4	29.16	14 70c	1	7½-7½-46		63.4	29.16	7½-7½-46
St. Paul, Minn.:									
English.	54.5	26.16	1½	15 1	2 8-8-48		54.5	26.16	2 8-8-48
German.	43.8	21.00	1½	2	8-8-48		40.6	19.50	8-8-48
Wichita, Kans.	49.0	23.50	1½	17 1	8-8-48		48.4	23.25	8-8-48
SOUTH CENTRAL.									
Birmingham, Ala.	57.5	24.15	1½	6 1	19 7-7-42		56.5	23.73	19 7-7-42
Dallas, Texas.	62.5	30.00	1½	11 2	8-8-48		59.4	28.50	8-8-48
Proof readers.	65.6	31.50	1½	11 2	8-8-48		62.5	30.00	8-8-48
Houston, Texas.	62.7	30.08	1½	1	8-8-48		62.7	30.08	8-8-48
Little Rock, Ark.	52.1	25.00	1½	1½	8-8-48		52.1	25.00	8-8-48
Louisville, Ky.	54.2	26.00	21 1½	1	8-8-48		54.2	26.00	8-8-48
Head ad men.	56.3	27.00	21 1½	1	8-8-48		56.3	27.00	8-8-48
Ad men.	54.2	26.00	21 1½	1	8-8-48		54.2	26.00	8-8-48
Memphis, Tenn.	60.0	27.00	1½	1	7½-7½-45		57.8	26.00	7½-7½-45
Head ad men.	62.2	28.00	1½	1	7½-7½-45		62.2	28.00	7½-7½-45
Nashville, Tenn.	59.4	28.50	1½	1	8-8-48		53.1	25.50	8-8-48
New Orleans, La.	57.0	24.23	1½	1	7-7½-42½		57.0	24.23	7-7½-42½

1 50 per cent of the members received \$1 per week more than the scale.

2 Maximum hours; minimum 7 per day, 42 per week.

3 Rate in cents per hour.

4 Do not work on Saturday.

5 For Sundays, on 6-day newspapers; on 7-day newspapers regular rate; for holidays, full day's pay for 6 hours' work.

6 For Sundays, on 6-day newspapers, time and one-half.

7 Double time after midnight.

8 Scale became 56.3 cents on July 1, 1918.

9 Scale became 62.5 cents on June 1, 1918.

10 For Sundays from 7 a. m. to 6 p. m.; for holidays, full day's pay for 6 hours' work.

11 For Sundays; for holidays, single time.

12 Scale became 52.8 cents on July 15, 1918.

13 For Sundays; for holidays, full day's pay for 6 hours' work.

14 Rate in cents per hour; 97 cents per hour after 6 p. m.

15 For Sundays, double time from 7 a. m. to 6 p. m.

16 Scale became 50.5 cents on July 1, 1918.

17 For Sundays, on 6-day newspapers, time and one-half.

18 And various bonuses. More than half of the members received more than the scale; amount not reported.

19 Minimum; maximum 8 hours per day, 48 per week.

20 Scale became 70 cents on July 21, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

COMPOSITORS: Day work—Concluded.

Geographical division, city, and occupation.	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.	
WESTERN.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Butte, Mont.....	170.0	31.50	1½	1	7½-7½-45	70.0	31.50	7½-7½-45	
Head ad men.....	276.7	34.50	1½	1	7½-7½-45	76.7	34.50	7½-7½-45	
Denver, Colo.....	72.7	32.70	1½	1	7½-7½-45	63.3	28.50	7½-7½-45	
Los Angeles, Cal.....	66.7	30.00	1½	3 ¹	7½-7½-45	66.7	30.00	7½-7½-45	
Portland, Oreg.....	72.7	32.70	4109c	3 ¹	7½-7½-45	68.3	30.75	7½-7½-45	
Salt Lake City, Utah.....	62.5	30.00	1½	1	8-8-48	62.5	30.00	8-8-48	
San Francisco, Cal.:									
English.....	68.9	31.00	1½	1	7½-7½-45	69.0	29.00	7-7-42	
Head ad men and proof readers.....	75.6	34.00	1½	1	7½-7½-45	76.2	32.00	7-7-42	
French.....	69.0	29.00	1½	1	7-7-42	69.0	29.00	7-7-42	
Italian.....	69.0	29.00	1½	1	7-7-42	69.0	29.00	7-7-42	
Swedish.....	69.0	29.00	1½	1	7-7-42	69.0	29.00	7-7-42	
Seattle, Wash.....	80.1	33.66	4120c	7 ¹	7-7-42	78.6	33.00	7-7-42	
Spokane, Wash.....	66.7	30.00	1½	1	7½-7½-45	66.7	30.00	7½-7½-45	

COMPOSITORS: Night work.

NORTH CENTRAL.									
Chicago, Ill.:									
English.....	71.0	31.95	1½	8 ¹	97½-7½-45	67.0	30.15	97½-7½-45	
German.....	68.8	27.50	2	2	8-8-40	68.8	27.50	8-8-40	
Norwegian.....	68.0	32.64	490c	490c	8-8-48	60.0	28.80	8-8-48	
Cincinnati, Ohio:									
English.....	62.5	30.00	1½	1	8-8-48	62.5	30.00	8-8-48	
German.....	50.0	20.00	1	1	8-8-40	50.0	20.00	8-8-40	
Cleveland, Ohio.....	68.8	33.00	1½	1	8-8-48	68.8	33.00	8-8-48	
Columbus, Ohio.....	66.7	32.00	111½	12 ²	8-8-48	64.6	31.00	8-8-48	
Davenport, Iowa, and Mo- line and Rock Island, Ill.:									
English.....	59.2	28.40	1½	2	8-8-48	52.1	25.00	8-8-48	
German.....	41.7	20.00	1½	131½	8-8-48	39.6	19.00	8-8-48	
Des Moines, Iowa.....	458.3	28.00	1½	1½	8-8-48	56.3	27.00	8-8-48	
Detroit, Mich.....	66.0	31.68	1½	1	168-8-48	66.0	31.68	168-8-48	
Grand Rapids, Mich.....	56.3	27.00	1½	1	8-8-48	51.0	24.50	8-8-48	
Indianapolis, Ind.....	60.4	29.00	1½	161½	8-8-48	60.4	29.00	8-8-48	

¹ Scale became 80 cents, on June 1, and 83.3 cents, on Sept. 1, 1918.

² More than half of the members received more than the scale; amount not reported. Scale became 86.7 cents, on June 1, and 90 cents, on Sept. 1, 1918.

³ For Sundays, on 6-day newspapers, time and one-half.

⁴ Rate in cents per hour.

⁵ Scale became 71.9 cents on June 9, 1918.

⁶ More than half of the members received more than the scale; amount not reported.

⁷ For Sundays; for holidays, full day's pay for 5 hours' work.

⁸ For Sundays, on 6-day newspapers, double-time.

⁹ Hours worked; minimum, 7 per day, 42 per week; maximum, 8 per day, 48 per week.

¹⁰ And various bonuses. More than half of the members received more than the scale; amount not reported.

¹¹ Double time after 1 hour.

¹² For Sundays; for July 4, Labor Day, and Christmas, full day's pay for 6 hours' work.

¹³ For Sundays; for holidays regular rate.

¹⁴ More than half of the members received \$1 per week more than the scale.

¹⁵ Maximum; minimum, 7 hours per day, 42 per week.

¹⁶ For Sundays, on 6-day newspapers; on 7-day newspapers, regular rate; for holidays, full day's pay for 6 hours' work.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

COMPOSITORS: Night work—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concl'd.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Kansas City, Mo.....	62.5	30.00	1½	1	8 - 8 - 48		62.5	30.00	8 - 8 - 48
Milwaukee, Wis.:									
English.....	62.5	30.00	1½	1	8 - 8 - 48		60.4	29.00	8 - 8 - 48
German.....	52.1	25.00	1½	1	8 - 8 - 48		52.1	25.00	8 - 8 - 48
Minneapolis, Minn.....	60.0	28.80	1½	3 ¹	8 - 8 - 48		60.0	28.80	8 - 8 - 48
Omaha, Nebr.....	59.4	28.50	1½	1	8 - 8 - 48		59.4	28.50	8 - 8 - 48
Peoria, Ill.....	54.6	26.20	1½	5 ¹	8 - 8 - 48		51.3	24.60	8 - 8 - 48
St. Louis, Mo.:									
English.....	72.0	32.40	⁶ 86c	1	7½ - 7½ - 45		72.0	32.40	7½ - 7½ - 45
German.....	72.0	28.80	⁶ 86c	1	7½ - 10 - 40		72.0	28.80	7½ - 10 - 40
St. Paul, Minn.....	61.0	29.28	1½	1	8 - 8 - 48		61.0	29.28	8 - 8 - 48
Wichita, Kans.....	55.2	26.50	1½	1	8 - 8 - 48		54.7	26.25	8 - 8 - 48
SOUTH CENTRAL.									
Birmingham, Ala.....	62.5	26.25	1½	9 ¹	10 7 - 7 - 42		61.5	25.83	10 7 - 7 - 42
Dallas, Tex.....	68.8	33.00	1½	1	8 - 8 - 48		65.6	31.50	8 - 8 - 48
Proof readers.....	71.9	34.50	1½	1	8 - 8 - 48		68.8	33.00	8 - 8 - 48
Houston, Tex.....	115.3	31.36	1½	1	8 - 8 - 48		65.3	31.36	8 - 8 - 48
Little Rock, Ark.....	56.3	27.00	1½	1½	8 - 8 - 48		56.3	27.00	8 - 8 - 48
Louisville, Ky.:									
English.....	60.0	28.80	¹² 1½	1	8 - 8 - 48		60.0	28.80	8 - 8 - 48
Head ad men.....	66.7	32.00	¹² 1½	1	8 - 8 - 48		66.7	32.00	8 - 8 - 48
German.....	135.0	20.00	¹⁴ 50c	1	8 - 0 - 40	(15)	50.0	20.00	8 - 0 - 40
Memphis, Tenn.....	63.3	28.50	1½	1	7½ - 7½ - 45		63.3	28.50	7½ - 7½ - 45
Head ad men.....	67.7	30.50	1½	1	7½ - 7½ - 45		67.7	30.50	7½ - 7½ - 45
Nashville, Tenn.....	135.9	28.75	1½	1	8 - 8 - 48		59.4	28.50	8 - 8 - 48
WESTERN.									
Butte, Mont.....	167.7	34.50	1½	1	7½ - 7½ - 45		76.7	34.50	7½ - 7½ - 45
Head ad man.....	178.3	37.50	1½	1	7½ - 7½ - 45		83.3	37.50	7½ - 7½ - 45
Denver, Colo.....	79.3	35.70	1½	1	7½ - 7½ - 45		70.0	31.50	7½ - 7½ - 45
Los Angeles, Cal.....	73.3	33.00	1½	9 ¹	7½ - 7½ - 45		73.3	33.00	7½ - 7½ - 45
Portland, Oreg.....	79.3	35.70	¹⁴ 119c	9 ¹	7½ - 7½ - 45		75.0	33.75	7½ - 7½ - 45
Salt Lake City, Utah.....	168.8	33.00	1½	1	8 - 8 - 48		68.8	33.00	8 - 8 - 48

¹ Scale became 62.5 cents on July 1, 1918.

² Scale became 68.8 cents on June 1, 1918.

³ For Sundays, from 7 a. m. to 6 p. m., double time; for holidays, full day's pay for 6 hours' work.

⁴ Scale became 57.7 cents on July 15, 1918.

⁵ For Sundays; for holidays, full day's pay for 6 hours' work.

⁶ Rate in cents per hour; \$1.08 per hour after 5 a. m.

⁷ Maximum; minimum, 7 hours per day, 42 per week.

⁸ Scale became 57.3 cents on July 1, 1918.

⁹ For Sundays, on 6-day newspapers, time and one-half.

¹⁰ Minimum; maximum 8 hours per day, 48 per week.

¹¹ Scale became 72.5 cents on July 21, 1918.

¹² Double time after 3 hours.

¹³ More than half of the members received more than the scale; amount not reported.

¹⁴ Rate in cents per hour.

¹⁵ Do not work on Saturdays.

¹⁶ Scale became 86.7 cents on June 1 and 90 cents on Sept. 1, 1918.

¹⁷ Scale became 93.3 cents on June 1 and 96.7 cents on Sept. 1, 1918.

¹⁸ More than half of the members received more than the scale; amount not reported. Scale became 78.1 cents on June 9, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

COMPOSITORS: Night work—Concluded.

Geographical division, city, and occupation.	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.	
WESTERN—concluded.			Regular rate multiplied by—						
San Francisco, Cal.:	Cents.	Dolls.					Cents.	Dolls.	
English.....	75.6	34.00	1½	1	7½- 7½-45		76.2	32.00	7- 7-42
Head ad men and proof- readers.....	82.2	37.00	1½	1	7½- 7½-45		83.3	35.00	7- 7-42
French.....	76.2	32.00	1½	1	7- 7-42		76.2	32.00	7- 7-42
Italian.....	76.2	32.00	1½	1	7- 7-42		76.2	32.00	7- 7-42
Swedish.....	76.2	32.00	1½	1	7- 7-42		76.2	32.00	7- 7-42
Seattle, Wash.....	87.4	36.72	120c	1	7- 7-42		85.7	36.00	7- 7-42
Spokane, Wash.....	73.3	33.00	1½	1	7½- 7½-45		73.3	33.00	7½- 7½-45

LINOTYPE OPERATORS: Day work.

NORTH CENTRAL.									
Chicago, Ill.:									
English.....	453.0		1½	1	7½- 7½-45		650.0		7½- 7½-45
Bohemian.....	715.0		8 1½	1½	6- 6-36		915.0		6- 6-36
German.....	62.5	25.00	2	2	8- 0-40	(10)	62.5	25.00	8- 0-40
Norwegian.....	62.0	29.76	1 90c	1	8- 8-48		55.0	26.40	8- 8-48
Polish and Swedish.....	60.2	28.90	11 1½	2	8- 8-48		55.0	26.40	8- 8-48
Cincinnati, Ohio.....	1256.3	27.00	1½	1½	8- 8-48		56.3	27.00	8- 8-48
Cleveland, Ohio:									
English.....	62.5	30.00	1½	1	8- 8-48		62.5	30.00	8- 8-48
German.....	156.3	27.00	1½	1½	8- 8-48		50.0	21.00	8- 8-48
Hungarian (morning shift).	62.1	27.00	1½	14 1	7½- 6-43½		62.1	27.00	7½- 6-43½
Hungarian (afternoon shift).....	64.4	28.00	1½	14 1	7½- 6-43½		62.1	27.00	7½- 6-43½
Columbus, Ohio.....	160.4	29.00	16 1½	17 2	8- 8-48		53.3	28.00	8- 8-48
Davenport, Iowa, and Mo- line and Rock Island, Ill. .	55.0	26.40	1½	2	8- 8-48		47.9	23.00	8- 8-48
Des Moines, Iowa.....	182.1	25.00	1½	1½	8- 8-48		50.0	24.00	8- 8-48
Detroit, Mich.:									
English.....	60.5	29.04	1½	1½	10 8- 8-48		60.5	29.04	10 8- 8-48
English.....	2026.0		1½	1½	10 8- 8-48		2026.0		10 8- 8-48
German.....	55.0	22.00	1 70c	2	8- 0-40		55.0	22.00	21 8- 0-40

¹ Rate in cents per hour.

² For Sundays on 7-day newspapers: for holidays, full day's pay for 5 hours' work.

³ More than half of the members received more than the scale; amount not reported.

⁴ For 3,500 ems agate or nonpareil per hour; 58 cents for 4,500 ems and 1 cent for each 100 ems over 4,500 per hour.

⁵ For Sundays, on 6-day newspapers, double time.

⁶ For 3,500 ems agate or nonpareil per hour; 55 cents for 4,500 ems and 1 cent for each 100 ems over 4,500 per hour.

⁷ Per 1,000 ems, 8-point or under; over 8-point, 18 cents. Scale was increased by a war bonus of \$2.50 per week on Jan. 1, 1918.

⁸ Double time after 3 hours.

⁹ Per 1,000 ems 8-point or under; over 8-point, 18 cents.

¹⁰ Do not work on Saturdays.

¹¹ Double time after 3 hours and on Saturday after completion of 48-hour week.

¹² And various bonuses. More than half of the members received more than the scale; amount not reported.

¹³ Scale became 57.1 cents and 42 hours on June 1, 1918.

¹⁴ For Sundays; holidays off with pay.

¹⁵ Scale became 61.5 cents on May 8, 1918.

¹⁶ Double time after 1 hour.

¹⁷ For July 4, Labor Day, and Christmas, full day's pay for 6 hours' work.

¹⁸ 75 per cent of the members received \$1 per week more than the scale.

¹⁹ Maximum; minimum, 7 hours per day, 42 per week.

²⁰ Per 100 lines nonpareil.

²¹ Work only 5 days per week.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

LINOTYPE OPERATORS: Day work—Continued.

Geographical division, city, and occupation.	May 15, 1918.				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday 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.	
NORTH CENTRAL—concluded.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Grand Rapids, Mich.	52.1	25.00	1½	1	8 - 8 - 48		46.9	22.50	8 - 8 - 48
Indianapolis, Ind.	56.3	27.00	1½	1½	8 - 8 - 48		56.3	27.00	8 - 8 - 48
Kansas City, Mo.	59.4	28.50	1½	2½	8 - 8 - 48		59.4	28.50	8 - 8 - 48
Milwaukee, Wis.:									
English	56.3	27.00	1½	2	8 - 8 - 48		54.2	26.00	8 - 8 - 48
German	47.9	23.00	1½	2	8 - 8 - 48		47.9	23.00	8 - 8 - 48
Minneapolis, Minn.	43.8	21.00	1½	2	8 - 8 - 48		40.6	19.50	8 - 8 - 48
Minneapolis, Minn.	10.0		1	6	8 - 8 - 48		10.0		8 - 8 - 48
Omaha, Nebr.:									
English	53.1	25.50	1½	8½	8 - 8 - 48		53.1	25.50	8 - 8 - 48
German	53.1	25.50	1½	8½	8 - 8 - 48		53.1	25.50	8 - 8 - 48
Peoria, Ill.	49.6	23.33	1½	10	11 8 - 7 - 47		46.3	21.74	8 - 7 - 47
St. Louis, Mo.	1211.5		(18)	1	14 7 - 7 - 42		1211.5		14 7 - 7 - 42
St. Paul, Minn.:									
English	54.5	26.16	1½	6	16 8 - 8 - 48		54.5	26.16	15 8 - 8 - 48
English	10.0		1½	6	16 8 - 8 - 48		10.0		18 8 - 8 - 48
German	43.8	21.00	1½	2	8 - 8 - 48		40.6	19.50	8 - 8 - 48
Wichita, Kans.	1749.0	23.50	1½	18	8 - 8 - 48		48.4	23.26	8 - 8 - 48
SOUTH CENTRAL.									
Birmingham, Ala.	757.5	24.15	1½	18	19 7 - 7 - 42		756.5	23.73	19 7 - 7 - 42
Birmingham, Ala.	9.0		1½	1	19 7 - 7 - 42		9.0		19 7 - 7 - 42
Dallas, Tex.	12.0		1	1	21 6½ - 6½ - 39		12.0		21 6½ - 6½ - 39
Houston, Tex.	5.11.5		1½	1	19 6 - 6 - 36		5.11.0		19 6 - 6 - 36
Little Rock, Ark.	65.0	27.30	1½	1½	7 - 7 - 42		65.0	27.30	7 - 7 - 42
Little Rock, Ark.	5.10.0		1½	1½	7 - 7 - 42		5.10.0		7 - 7 - 42
Louisville, Ky.	54.2	26.00	2½	1	8 - 8 - 48		54.2	26.00	8 - 8 - 48
Memphis, Tenn.	9.5		1½	1	19 7½ - 7½ - 45		9.5		19 7½ - 7½ - 45
Nashville, Tenn.	59.4	28.50	1½	1	8 - 8 - 48		53.1	25.50	8 - 8 - 48
WESTERN.									
Butte, Mont.	2370.0	31.50	1½	1	7½ - 7½ - 45		70.0	31.50	7½ - 7½ - 45
Denver, Colo.	72.7	32.70	1½	1	7½ - 7½ - 45		63.3	28.50	7½ - 7½ - 45

1 For Sundays, on 6-day newspapers; on 7-day newspapers, regular rate; for holidays, full day's pay for 6 hours' work.
 2 For Sundays, on 7-day newspapers, regular rate.
 3 Double time after midnight.
 4 Scale became 5½ cents on July 1, 1918.
 5 Per 1,000 ems nonpareil.
 6 For Sundays, from 7 a. m. to 6 p. m., double time.
 7 More than half of the members received more than the scale; amount not reported.
 8 For Sundays; for holidays, regular rate.
 9 Scale became 51.8 cents on July 15, 1918.
 10 For holidays, full day's pay for 6 hours' work.
 11 Work 8 hours on Saturday during December.
 12 Per 1,000 ems agate or nonpareil.
 13 13.5 cents per 1,000 ems.
 14 Minimum; maximum, 7½ hours per day, 46 per week.
 15 Maximum; minimum, 7 hours per day, 42 per week.
 16 Maximum; minimum, 6 hours per day, 36 hours per week.
 17 Scale became 50.5 cents on July 1, 1918.
 18 For Sundays, on 6-day newspapers, time and one-half.
 19 Minimum; maximum, 8 hours per day, 48 per week.
 20 Per 1,000 ems nonpareil. More than half of the members received more than the scale; amount not reported.
 21 Maximum; minimum, 5½ hours per day, 33 per week.
 22 Double time after 3 hours.
 23 Scale became 80 cents on June 1 and 83.3 cents on Sept. 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

LINOTYPE OPERATORS: Day work—Concluded.

Geographical division, city, and occupation.	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.	
WESTERN—concluded.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Los Angeles, Cal.....	66.7	30.00	1½	1	7½-7½-45		66.7	30.00	7½-7½-45
Portland, Oreg.....	72.7	32.70	² 109c	1	7½-7½-45		68.3	30.75	7½-7½-45
Salt Lake City, Utah.....	³ 13.0		1½	1	⁴ 8-8-48		⁵ 10.0		⁶ 8-8-48
San Francisco, Cal.:									
English.....	68.9	31.00	1½	1	7½-7½-45		69.0	29.00	7-7-42
French.....	69.0	29.00	1½	1	7-7-42		69.0	29.00	7-7-42
Italian.....	69.0	29.00	1½	1	7-7-42		69.0	29.00	7-7-42
Swedish.....	69.0	29.00	1½	1	7-7-42		69.0	29.00	7-7-42
Seattle, Wash.....	⁷ 80.1	33.66	² 120c	⁸ 1	7-7-42		78.6	33.00	7-7-42
Spokane, Wash.....	⁹ 66.7	30.00	1½	1	7½-7½-45		¹⁰ 66.7	30.00	7½-7½-45

LINOTYPE OPERATORS: Night work.

NORTH CENTRAL.									
Chicago, Ill.:									
English.....	⁸ 58.0		1½	⁹ 1	7½-7½-45		¹⁰ 55.0		7½-7½-45
Bohemian.....	¹¹ 17.0		1½	¹² 1½	6-6-36		¹¹ 17.0		6-6-36
German.....	68.8	27.50	2	2	8-0-40	(¹³)	68.8	27.50	8-0-40
Norwegian.....	68.0	32.64	²⁰ 90c	²⁰ 90c	8-8-48		60.0	28.80	8-8-48
Swedish.....	65.2	31.30	1½	2	8-8-48		60.0	28.80	8-8-48
Cincinnati, Ohio:									
English.....	¹⁴ 62.5	30.00	1½	1	8-8-48		62.5	30.00	8-8-48
German.....	50.0	20.00	1	1	8-0-40	(¹⁵)	50.0	20.00	8-0-40
Cleveland, Ohio:									
English.....	68.8	33.00	1½	1	8-8-48		68.8	33.00	8-8-48
Hungarian.....	69.0	30.00	1½	¹⁶ 1	7½-6-43½		62.1	27.00	¹⁶ 7½-6-43½
Columbus, Ohio.....	¹⁷ 66.7	32.00	¹⁸ 1½	¹⁹ 2	8-8-48		64.6	31.00	8-8-48

¹ For Sundays, on 6-day newspapers, time and one-half.

² Rate in cents per hour.

³ Per 1,000 ems agate or nonpareil. Scale became 11 cents per 1,000 ems nonpareil on June 9, 1918.

⁴ Maximum; minimum, 6½ hours per day, 39 per week.

⁵ More than half of the members received more than the scale; amount not reported.

⁶ For Sundays; for holidays, full day's pay for 5 hours' work.

⁷ And 1 cent per 100 ems over 41,250 per day. More than half of the members received more than the scale; amount not reported.

⁸ For 3,500 ems, agate or nonpareil, per hour; 63 cents for 4,500 ems, and 1 cent for each 100 ems over 4,500 per hour.

⁹ For Sundays, on 6-day newspapers, double time.

¹⁰ For 3,500 ems, agate or nonpareil, per hour; 60 cents for 4,500 ems, and 1 cent for each 100 ems over 4,500 per hour.

¹¹ Per 1,000 ems, 8-point or under; over 8-point, 20 cents. Scale was increased by a war bonus of \$2.50 per week, on Jan. 1, 1918.

¹² Double time after 3 hours.

¹³ Do not work on Saturdays.

¹⁴ And various bonuses. More than half of the members received more than the scale; amount not reported.

¹⁵ For Sundays; do not work on holidays.

¹⁶ Allowed 6 days off each year, with pay.

¹⁷ Scale became 67.7 cents on May 8, 1918.

¹⁸ Double time after 1 hour.

¹⁹ For Sundays; for July 4, Labor Day, and Christmas, full day's pay for 6 hours' work; for other holidays, regular rate.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

LINOTYPE OPERATORS: Night work—Continued.

Geographical division, city, and occupation.	May 15, 1918.					Mos. with Saturday half holiday.	May 15, 1917.		Hours—Full days; Saturdays; Full week.
	Rate of wages—				Hours—Full days; Saturdays; Full week.		Rate of wages—		
	Per hour.	Per week, full time.	For over-time.	For Sun-days and holi-days.			Per hour.	Per week, full time.	
NORTH CENTRAL—concluded.									
Davenport, Iowa; Moline and Rock Island, Ill.:	<i>Regular rate multiplied by—</i>								
	<i>Cents.</i>	<i>Dolls.</i>					<i>Cents.</i>	<i>Dolls.</i>	
English.....	59.2	23.40	1½	2	8 - 8 - 48	52.1	25.00	8 - 8 - 48	
German.....	51.0	24.00	1½	1½	8 - 8 - 48	47.9	23.00	8 - 8 - 48	
Des Moines, Iowa.....	53.3	23.00	1½	1½	8 - 8 - 48	56.3	27.00	8 - 8 - 48	
Detroit, Mich.....	66.0	31.68	1½	1	8 - 8 - 48	466.0	31.68	8 - 8 - 48	
Detroit, Mich.....	23.0	.....	1½	1	8 - 8 - 48	28.0	.....	8 - 8 - 48
Grand Rapids, Mich.....	56.3	27.00	1½	1	8 - 8 - 48	51.0	24.50	8 - 8 - 48	
Indianapolis, Ind.....	60.4	29.00	1½	6½	8 - 8 - 48	69.4	29.00	8 - 8 - 48	
Kansas City, Mo.....	62.5	30.00	1½	1	8 - 8 - 48	62.5	30.00	8 - 8 - 48	
Milwaukee, Wis.:									
English.....	62.5	30.00	1½	1	8 - 8 - 48	60.4	29.00	8 - 8 - 48	
German.....	54.2	26.00	1½	1	8 - 8 - 48	54.2	26.00	8 - 8 - 48	
Minneapolis, Minn.....	11.0	.....	1	9	10 6 - 6 - 36	11.0	.....	10 6 - 6 - 36
Omaha, Nebr.....	59.4	28.50	1½	1	8 - 8 - 48	59.4	28.50	8 - 8 - 48	
Peoria, Ill.....	52.5	25.20	1½	12	8 - 8 - 48	51.3	24.60	8 - 8 - 48	
St. Louis, Mo.:									
English.....	13.5	.....	(14)	1	15 7 - 7 - 42	13.5	.....	15 7 - 7 - 42
German.....	72.0	28.80	(16)	1	7½-10 - 40	72.0	28.80	7½-10 - 40	
St. Paul, Minn.:									
English.....	61.0	29.28	1½	1	8 - 8 - 48	61.0	29.28	8 - 8 - 48	
English.....	11.0	.....	1½	1	17 8 - 8 - 48	11.0	.....	17 8 - 8 - 48
Wichita, Kans.....	55.2	26.50	1½	1	8 - 8 - 48	54.7	26.25	8 - 8 - 48	
SOUTH CENTRAL.									
Birmingham, Ala.....	62.5	26.25	1½	19	10 7 - 7 - 42	61.5	25.83	10 7 - 7 - 42	
Birmingham, Ala.....	10.0	.....	1½	19	10 7 - 7 - 42	10.0	.....	10 7 - 7 - 42
Dallas, Tex.....	13.0	.....	1	1	20 6½- 6½-39	13.0	.....	20 6½- 6½-39
Houston, Tex.....	11.5	.....	1½	1	10 6 - 6 - 36	11.5	.....	10 6 - 6 - 36
Little Rock, Ark.....	70.0	29.40	1½	1	7 - 7 - 42	70.0	29.40	7 - 7 - 42	
Little Rock, Ark.....	10.5	.....	1½	1	7 - 7 - 42	10.5	.....	7 - 7 - 42
Louisville, Ky.:									
English.....	60.0	28.80	2½	1	8 - 8 - 48	60.0	28.80	8 - 8 - 48	
German.....	50.0	20.00	250c	1	8 - 8 - 40	50.0	20.00	8 - 8 - 40	
Memphis, Tenn.....	19.5	.....	1½	1	7½- 7½-45	19.5	.....	7½- 7½-45
Nashville, Tenn.....	62.5	30.00	1½	1	8 - 8 - 48	59.4	28.50	8 - 8 - 48	

1 For Sundays; for holidays, regular rate.
 2 Fifty per cent of the members received \$1 per week more than the scale.
 3 Maximum; minimum 7 hours per day, 42 per week.
 4 More than half of the members received more than the scale; amount not reported.
 5 Per 100 lines nonpareil.
 6 For Sundays, on 6-day newspapers; on 7-day newspapers, regular rate; for holidays, full day's pay for 6 hours' work.
 7 Scale became 62.5 cents on July 1, 1918.
 8 Per 1,000 ems nonpareil.
 9 For Sundays, from 7 a. m. to 6 p. m. double time.
 10 Minimum; maximum 8 hours per day, 48 per week.
 11 Scale became 65.6 cents on July 15, 1918.
 12 Full day's pay for 6 hours' work on holidays.
 13 Per 1,000 ems agate or nonpareil.
 14 15½ cents per 1,000 ems until 5 a. m.; \$1.08 per hour thereafter.
 15 Minimum; maximum 7½ hours per day, 45 per week.
 16 86 cents per hour until 5 a. m.; \$1.08 per hour thereafter.
 17 Maximum; minimum 6 hours per day.
 18 Scale became 57.3 cents on July 1, 1918.
 19 For Sundays, on 6-day newspapers, time and one-half.
 20 Maximum; minimum 5½ hours per day, 33 per week.
 21 Double time after 3 hours.
 22 Rate in cents per hour.
 23 Work only 5 days per week.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

LINOTYPE OPERATORS: Night work—Concluded.

Geographical division, city, and occupation.	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.		
WESTERN.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>					<i>Cents.</i>	<i>Dolls.</i>	
Butte, Mont.....	76.7	34.59	1½	1	7½-7½-45		76.7	34.59	7½-7½-45	
Denver, Colo.....	79.3	35.70	1½	1	7½-7½-45		70.0	31.50	7½-7½-45	
Los Angeles, Cal.....	73.3	33.00	1½	2 1	7½-7½-45		73.3	33.00	7½-7½-45	
Portland, Oreg.....	79.3	35.70	1½	2 1	7½-7½-45		75.0	33.75	7½-7½-45	
Salt Lake City, Utah.....	11.0		1½	1	8-8-48		11.0		8-8-48	
San Francisco, Cal.:										
English.....	75.6	34.00	1½	1	7½-7½-45		76.2	32.00	7-7-42	
French.....	76.2	32.00	1½	1	7-7-42		76.2	32.00	7-7-42	
Italian.....	76.2	32.00	1½	1	7-7-42		76.2	32.00	7-7-42	
Seattle, Wash.....	87.7	36.72	1½	6 1	7-7-42		85.7	36.00	7-7-42	
Spokane, Wash.....	73.3	33.00	1½	1	7½-7½-45		73.3	33.00	7½-7½-45	

MACHINE TENDERS: Night work.

NORTH CENTRAL.										
Chicago, Ill.:										
English.....	73.3	33.00	1½	8 1	7½-7½-45		68.9	31.00	7½-7½-45	
Bohemian.....	81.9	29.50	9 1½	1½	6-6-36		75.0	27.00	6-6-36	
German.....	75.0	30.00	2	2	10 8-8-40		75.0	30.00	10 8-8-40	
Cincinnati, Ohio.....	162.5	30.00	1½	1	8-8-48		62.5	30.00	8-8-48	
Assistants.....	154.2	26.00	1½	1	8-8-48		54.2	26.00	8-8-48	
Helpers.....	143.8	21.00	1½	1	8-8-48		43.8	21.00	8-8-48	
Cleveland, Ohio.....	126.8	33.00	1½	1	8-8-48		126.8	33.00	8-8-48	
Columbus, Ohio.....	64.7	32.00	13 1½	14 2	8-8-48		64.6	31.00	8-8-48	
Assistants.....	31.3	15.00	13 1½	14 2	8-8-48		31.3	15.00	8-8-48	
Des Moines, Iowa.....	120.4	29.00	1½	1½	8-8-48		125.3	27.00	8-8-48	
Detroit, Mich.....	66.0	31.68	1½	1	15 8-8-48		126.0	31.68	15 8-8-48	
Grand Rapids, Mich.....	56.3	27.00	1½	1	8-8-48		125.1	24.50	8-8-48	
Indianapolis, Ind.....	60.4	29.00	1½	16 1½	8-8-48		60.4	29.00	8-8-48	
Kansas City, Mo.....	62.5	30.00	1½	1	8-8-48		62.5	30.00	8-8-48	
Milwaukee, Wis.....	122.5	30.00	1½	1	8-8-48		60.4	29.00	8-8-48	
Minneapolis, Minn.....	170.0	28.80	1½	18 1	8-8-48		60.0	28.80	8-8-48	
Omaha, Nebr.....	129.4	28.50	1½	1	8-8-48		129.4	28.50	8-8-48	

1 Scale became 86.7 cents on June 1, and 90 cents on Sept. 1, 1918.

2 For Sundays, on 6-day newspapers, time and one-half.

3 Rate in cents per hour.

4 Per 1,000 ems, agate or nonpareil. Scale became 12 cents per 1,000 ems, nonpareil, on June 9, 1918.

5 Maximum; minimum, 6½ hours per day, 39 per week.

6 For Sundays; for holidays, full day's pay for 5 hours' work.

7 And 1 cent per 100 ems over 41,250 per day.

8 For Sundays, on 6-day newspapers, double time.

9 Double time after 3 hours.

10 Work 5 days per week.

11 And various bonuses. More than half of the members received more than the scale; amount not reported.

12 More than half of the members received more than the scale; amount not reported.

13 Double time after 1 hour.

14 For Sundays; for holidays, full day's pay for 6 hours' work.

15 Maximum; minimum, 7 hours per day, 42 per week.

16 For Sundays, on 6-day newspapers; on 7-day newspapers, regular rate; for holidays, full day's pay for 6 hours' work.

17 Scale became 68.7 cents on June 1, 1918.

18 For Sundays from 7 a. m. to 6 p. m., double time; for holidays, full day's pay for 6 hours' work.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

MACHINE TENDERS: Night work—Concluded.

Geographical division, city, and occupation.	May 15, 1918.					May 15, 1917.				
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half hoid- day.	Rate of wages—		Hours— Full days; Saturdays; Full week.	
	Per hour.	Per week, full time.	For over- time.	For Sun- days and hoid- days.			Per hour.	Per week, full time.		
NORTH CENTRAL—concluded.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Peoria, Ill.....	154.6	26.20	1½	2 ¹	8-8-48		51.3	24.60		8-8-48
St. Louis, Mo.....	72.9	32.40	(³)	1	7½-7½-45		72.0	32.40		7½-7½-45
St. Paul, Minn.....	61.0	29.28	1½	1	4 ⁸ -8-48		5 ^{61.0}	29.28		4 ⁸ -8-48
Wichita, Kans.....	54.7	26.25	1½	1	8-8-48		54.7	26.25		8-8-48
SOUTH CENTRAL.										
Birmingham, Ala.....	62.5	26.25	1½	7 ¹	9 ⁷ -7-42		61.5	25.83		8 ⁷ -7-42
Dallas, Tex.....	68.8	33.00	1½	1	8-8-48		65.6	31.50		8-8-48
Houston, Tex.....	72.9	35.00	1½	1	8-8-48		72.9	35.00		8-8-48
Assistants.....	59.4	28.50	1½	1	8-8-48		59.4	28.50		8-8-48
Little Rock, Ark.....	62.5	30.00	1½	1½	8-8-48		62.5	30.00		8-8-48
Louisville, Ky.:										
14 to 18 machines.....	66.7	32.00	10 ¹ 1½	1	8-8-48		66.7	32.00		8-8-48
19 to 25 machines.....	70.8	34.00	10 ¹ 1½	1	8-8-48		70.8	34.00		8-8-48
Memphis, Tenn.....	77.8	35.00	1½	1	7½-7½-45		77.8	35.00		7½-7½-45
WESTERN.										
Butte, Mont.....	176.7	34.50	1½	1	7½-7½-45		576.7	34.50		7½-7½-45
Denver, Colo.....	79.3	35.70	1½	1	7½-7½-45		570.0	31.50		7½-7½-45
Los Angeles, Cal.....	73.3	33.00	1½	7 ¹	7½-7½-45		73.3	33.00		7½-7½-45
Portland, Oreg.....	79.3	35.70	12 ¹ 19c	7 ¹	7½-7½-45		75.0	33.75		7½-7½-45
Salt Lake City, Utah.....	68.8	33.00	1½	1	8-8-48		568.8	33.00		8-8-48
San Francisco, Cal.....	82.2	37.00	1½	1	7½-7½-45		83.3	35.00		7-7-42
Assistants.....	62.2	28.00	1½	1	7½-7½-45		61.9	25.00		7-7-42

MACHINE TENDERS: Day work.

NORTH CENTRAL.										
Chicago, Ill.:					Hours— Full days; Saturdays; Full week.			Hours— Full days; Saturdays; Full week.		
	Per hour.	Per week, full time.	For over- time.	For Sun- days and hoid- days.		Per hour.	Per week, full time.			
English.....	68.9	31.60	1½	14 ¹	7½-7½-45		564.4	29.00		7½-7½-45
Bohemian.....	76.9	27.70	10 ¹ 1½	1½	6-6-36		570.0	25.00		6-6-36
German.....	62.5	25.00	2	2	15 ⁸ -8-40		12 ^{62.5}	25.00		15 ⁸ -8-40
Swedish.....	60.2	28.90	16 ¹ 1½	2	8-8-48		55.0	26.40		8-8-48

1 Scale became 57.7 cents on July 15, 1918.
 2 For Sundays, full day's pay for 6 hours' work.
 3 86 cents per hour until 5 a. m.; \$1.08 per hour thereafter.
 4 Maximum; minimum, 7 hours per day, 42 hours per week.
 5 More than half of the members received more than the scale; amount not reported.
 6 Scale became 57.3 cents on July 1, 1918.
 7 For Sundays, on 6-day newspapers, time and one-half.
 8 Minimum; maximum, 8 hours per day, 48 per week.
 9 33 per cent of the members received more than the scale.
 10 Double time after 3 hours.
 11 More than half of the members received more than the scale; amount not reported. Scale became 86.7 cents on June 1 and 90 cents on Sept. 1, 1918.
 12 Rate in cents per hour.
 13 More than half of the members received more than the scale; amount not reported. Scale became 78.1 cents on June 9, 1918.
 14 For Sundays, on 6-day newspapers, double time.
 15 Work only 5 days per week.
 16 Double time after 8 p. m. and on Saturdays after completion of 43-hour week.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

MACHINE TENDERS: Day work—Continued.

Geographical division, city, and occupation.	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.				
NORTH CENTRAL—concluded.												
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>				
Cincinnati, Ohio.....	156.3	27.00	1½	1½	8-8-48		56.3	27.00	8-8-48			
Assistants.....	147.9	23.00	1½	1½	8-8-48		47.9	23.00	8-8-48			
Helpers.....	137.5	18.00	1½	1½	8-8-48		237.5	18.00	8-8-48			
Cleveland, Ohio.....	62.5	30.00	1½	1	8-8-48		62.5	30.00	8-8-48			
Columbus, Ohio.....	60.4	29.00	3 1½	4 2	8-8-48		58.3	28.00	8-8-48			
Assistants.....	31.3	15.00	3 1½	4 2	8-8-48		31.3	15.00	8-8-48			
Des Moines, Iowa.....	54.2	26.00	1½	1½	8-8-48		250.0	24.00	8-8-48			
Detroit, Mich.....	60.5	29.04	1½	1½	8-8-48		260.5	29.04	8-8-48			
Grand Rapids, Mich.....	252.1	25.00	1½	2	8-8-48		246.9	22.50	8-8-48			
Indianapolis, Ind.....	56.3	27.00	1½	6 1½	8-8-48		56.3	27.00	8-8-48			
Kansas City, Mo.....	62.5	30.00	1½	7 1½	8-8-48		262.5	30.00	8-8-48			
Milwaukee, Wis.....	256.3	27.00	8 1½	2	8-8-48		54.2	26.00	8-8-48			
Minneapolis, Minn.....	254.0	25.92	1½	10 1	8-8-48		54.0	25.92	8-8-48			
Omaha, Nebr.....	253.1	25.50	1½	7 1½	8-8-48		253.1	25.50	8-8-48			
Peoria, Ill.....	149.6	23.33	1½	4 1	12 8-7-47		46.3	21.74	12 8-7-47			
St. Louis, Mo.....	63.4	29.16	(13)	1	7½-7½-46		63.4	29.16	7½-7½-46			
St. Paul, Minn.:												
English.....	54.5	26.16	1½	14 1	8-8-48		51.5	26.16	8-8-48			
German.....	43.8	21.00	1½	2	8-8-48		40.6	19.50	8-8-48			
Wichita, Kans.....	1049.0	23.50	1½	16 1	8-8-48		248.4	23.25	8-8-48			
SOUTH CENTRAL.												
Birmingham, Ala.....	57.5	24.15	1½	16 1	17 7-7-42		56.5	23.73	17 7-7-42			
Dallas, Tex.....	70.8	34.00	1½	7 2	8-8-48		259.4	28.50	8-8-48			
Houston, Tex.....	59.4	28.50	1½	1	8-8-48		59.4	28.50	8-8-48			
Little Rock, Ark.....	54.2	26.00	1½	1½	8-8-48		54.2	26.00	8-8-48			
Louisville, Ky.:												
14 to 18 machines.....	66.7	32.00	18 1½	1½	8-8-48		66.7	32.00	8-8-48			
19 to 25 machines.....	70.8	34.00	18 1½	1½	8-8-48		70.8	34.00	8-8-48			
Memphis, Tenn.....	66.7	30.00	19 1½	1	7½-7½-45		66.7	30.00	7½-7½-45			
WESTERN.												
Butte, Mont.....	2070.0	31.50	1½	1	7½-7½-45		70.0	31.50	7½-7½-45			
Denver, Colo.....	72.7	32.70	1½	1	7½-7½-45		263.3	28.50	7½-7½-45			
Los Angeles, Cal.....	66.7	30.00	1½	16 1	7½-7½-45		66.7	30.00	7½-7½-45			

1 And various bonuses. More than half of the members received more than the scale; amount not reported.
 2 More than half of the members received more than the scale; amount not reported.
 3 Double time after 1 hour.
 4 For Sundays; for holidays, full day's pay for 6 hours' work.
 5 Maximum; minimum, 7 hours per day, 42 per week.
 6 For Sundays, on 6-day newspapers; on 7-day newspapers, regular rate; for holidays, full day's pay for 6 hours' work.
 7 For Sundays; for holidays, regular rate.
 8 Double time after midnight.
 9 Scale became 62.5 cents on June 1, 1918.
 10 For Sundays, from 7 a. m. to 6 p. m., double time; for holidays, full day's pay for 6 hours' work.
 11 Scale became 52.8 cents on July 15, 1918.
 12 8 hours on Saturday during December.
 13 76 cents per hour until 6 p. m.; 97 cents per hour thereafter.
 14 For Sundays, from 7 a. m. to 6 p. m., double time.
 15 More than half of the members received more than the scale; amount not reported. Scale became 50.5 cents on July 1, 1918.
 16 For Sundays, on 6-day newspapers, time and one-half.
 17 Minimum; maximum, 8 hours per day, 48 per week.
 18 Double time after 3 hours.
 19 After completion of 8-hour day.
 20 Scale became 80 cents on June 1 and 83.3 cents on Sept. 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

MACHINE TENDERS: Day work—Concluded.

Geographical division, city, and occupation.	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.	
WESTERN—concluded.	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Portland, Oreg.	72.7	32.70	1109c	2 1	7½-7½-45	.....	68.3	30.75	7½-7½-45
Assistants	44.3	19.95	1½	2 1	7½-7½-45	.....	37.5	18.00	8-8-48
Salt Lake City, Utah	362.5	30.00	1½	1	8-8-48	.....	62.5	30.00	8-8-48
San Francisco, Cal.	75.6	34.00	1½	1	7½-7½-45	.....	76.2	32.00	7-7-42
Assistants	62.2	28.00	1½	1	7½-7½-45	.....	61.9	26.00	7-7-42

MACHINIST OPERATORS: Day work.

SOUTH CENTRAL.									
Little Rock, Ark.	72.1	30.30	1½	1½	7-7-42	.....	(4)	(4)	(4)
Memphis, Tenn.	77.8	35.00	5 1½	1	7½-7½-45	.....	77.8	35.00	7½-7½-45
WESTERN.									
San Francisco, Cal.	75.6	34.00	1½	1	7½-7½-45	.....	76.2	32.00	7-7-42
Seattle, Wash.	687.4	36.72	1120c	7 1	7-7-42	.....	85.7	36.00	7-7-42
Spokane, Wash.	966.7	30.00	1½	1	7½-7½-45	.....	666.7	30.00	7½-7½-45

MACHINIST OPERATORS: Night work.

NORTH CENTRAL.									
St. Paul, Minn.	50.0	24.00	1½	2	8-8-48	.....	46.9	22.50	8-8-48
WESTERN.									
San Francisco, Cal.:									
English	82.2	37.00	1½	1	7½-7½-45	.....	83.3	35.00	7-7-42
Italian	81.0	34.00	1½	1	7-7-42	.....	81.0	34.00	7-7-42
Seattle, Wash.	92.9	39.00	7 120c	7 1	7-7-42	.....	92.9	39.00	7-7-42
Spokane, Wash.	73.3	33.00	1½	1	7½-7½-45	.....	73.3	33.00	7½-7½-45

PHOTO-ENGRAVERS: Day work.

NORTH CENTRAL.									
Chicago, Ill.	54.2	26.00	1½	(8)	8-8-48	.....	54.2	26.00	8-8-48
Cincinnati, Ohio.	56.8	27.25	1½	9 2	8-8-48	.....	56.8	27.25	8-8-48
Cleveland, Ohio.	65.0	31.20	1½	1½	8-8-48	.....	65.0	31.20	8-8-48

- 1 Rate in cents per hour.
- 2 For Sundays on 6-day newspapers, time and one-half.
- 3 Scale became 71.9 cents on June 9, 1918.
- 4 No scale in effect on May 15, 1917.
- 5 After an 8-hour day.
- 6 More than half of the members received more than the scale; amount not reported.
- 7 For Sundays; for holidays, full day's pay for 5 hours' work.
- 8 For less than 4 hours, time and one-half plus a bonus of \$1; for 4 hours, a full day's pay; for more than 4 hours and not more than 8, one and one-half days' pay.
- 9 For Sundays; for holidays, regular rate.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PHOTO-ENGRAVERS: Day work—Concluded.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concluded.									
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Columbus, Ohio.....	62.5	30.00	1½	2	8-8-48		58.3	28.00	8-8-48
Grand Rapids, Mich.....	52.1	25.00	1½	1	8-8-48		52.1	25.00	8-8-48
Kansas City, Mo.....	60.4	29.00	1½	1	8-8-48		52.1	25.00	8-8-48
Minneapolis, Minn.....	56.3	27.00	1½	2	8-8-48		56.3	27.00	8-8-48
St. Paul, Minn.....	56.3	27.00	1½	2	8-8-48		56.3	27.00	8-8-48
SOUTH CENTRAL.									
Dallas, Tex.....	58.3	28.00	1	1	8-8-48		54.2	26.00	8-8-48
WESTERN.									
Denver, Colo.....	57.8	26.00	1½	2	7½-7½-45		57.8	26.00	7½-7½-45
Los Angeles, Cal.....	56.3	27.00	1	1	8-8-48		56.3	27.00	8-8-48
Portland, Ore.....	62.5	30.00	1½	2	8-8-48		62.5	30.00	8-8-48
Salt Lake City, Utah.....	50.0	24.00	1½	1½	8-8-48		50.0	24.00	8-8-48
San Francisco, Cal.....	62.2	28.00	1½	1	7½-7½-45		57.8	26.00	7½-7½-45
Seattle, Wash.....	72.9	30.60	1½	2	7-7-42		71.4	30.00	7-7-42

PHOTO-ENGRAVERS: Night work.

NORTH CENTRAL.									
Chicago, Ill.....	60.4	29.00	1½	1	8-8-48		60.4	29.00	8-8-48
Cincinnati, Ohio.....	59.9	28.75	1½	1	8-8-48		59.9	28.75	8-8-48
Cleveland, Ohio.....	71.3	34.20	1½	1½	8-8-48		71.3	34.20	8-8-48
Detroit, Mich.....	63.8	30.00	6 1½	2	7½-7½-47		50.0	24.00	8-8-48
Kansas City, Mo.....	62.5	30.00	1½	1	8-8-48		52.1	25.00	8-8-48
St. Paul, Minn.....	76.2	32.00	1½	2	7-7-42		76.2	32.00	7-7-42
SOUTH CENTRAL.									
Dallas, Tex.....	68.8	33.00	1	1	8-8-48		64.6	31.00	8-8-48
WESTERN.									
Denver, Colo.....	62.2	28.00	1½	2	7½-7½-45		62.2	28.00	7½-7½-45
Los Angeles, Cal.....	56.3	27.00	1	1	8-8-48		56.3	27.00	8-8-48
San Francisco, Cal.....	68.9	31.00	1½	1	7½-7½-45		64.4	29.00	7½-7½-45

PRESSMEN, WEB PRESSES: Day work.

NORTH CENTRAL.									
Chicago, Ill.:									
Head pressmen.....	62.5	30.00	1½	2	8-8-48		62.5	30.00	8-8-48
Journeyman.....	50.0	24.00	1½	2	8-8-48		50.0	24.00	8-8-48

1 For Sundays; for holidays, regular rate.

2 More than half of the members received more than the scale; amount not reported.

3 Double time after 9 p. m. and on Saturday after 5.30 p. m.

4 Double time after 4 hours; triple time after 8 hours.

5 More than half of the members received more than the scale; amount not reported. Scale became 68.1 cents on Sept. 1, 1918.

6 Double time after 4 hours.

7 Six days off each year with pay.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PRESSMEN, WEB PRESSES: Day work—Continued.

Geographical division, city, and occupation.	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.		
NORTH CENTRAL—contd.										
	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>		
Cincinnati, Ohio:			$\frac{1}{2}$	$\frac{2}{1}$						
Head pressmen.....	1 53.1	25.50	$\frac{1}{2}$	$\frac{2}{1}$	8 - 8 - 48		53.1	25.50	8 - 8 - 48	
Tension men.....	1 46.3	22.20	$\frac{1}{2}$	$\frac{2}{1}$	8 - 8 - 48		46.3	22.20	8 - 8 - 48	
Others and platers.....	1 43.1	20.70	$\frac{1}{2}$	$\frac{2}{1}$	8 - 8 - 48		43.1	20.70	8 - 8 - 48	
Cleveland, Ohio:										
Head pressmen.....	62.5	30.00	$\frac{1}{2}$	1	8 - 8 - 48		53.1	25.50	8 - 8 - 48	
Tension men and brakemen.....	53.1	25.50	$\frac{1}{2}$	1	8 - 8 - 48		46.3	22.20	8 - 8 - 48	
Others and platers.....	53.1	25.50	$\frac{1}{2}$	1	8 - 8 - 48		37.5	18.00	8 - 8 - 48	
Columbus, Ohio:										
Head pressmen.....	59.4	28.50	$\frac{1}{2}$	1	8 - 8 - 48		56.3	27.00	8 - 8 - 48	
Journeymen.....	3 46.9	22.50	$\frac{1}{2}$	1	8 - 8 - 48		46.9	22.50	8 - 8 - 48	
Davenport, Iowa:										
Head pressmen.....	64.2	30.80	$\frac{1}{2}$	1	8 - 8 - 48		456.3	27.00	8 - 8 - 48	
Journeymen.....	45.8	22.00	$\frac{1}{2}$	1	8 - 8 - 48		29.6	19.00	8 - 8 - 48	
Des Moines, Iowa:										
Head pressmen.....	5 62.5	30.00	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		62.5	30.00	8 - 8 - 48	
Tension men.....	46.9	22.50	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		37.5	18.00	8 - 8 - 48	
Others.....	46.9	22.50	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		33.3	16.00	8 - 8 - 48	
Detroit, Mich.:										
Head pressmen.....	57.3	27.50	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		57.3	27.50	8 - 8 - 48	
Brakemen and outside men.....	50.0	24.00	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		50.0	24.00	8 - 8 - 48	
Others, platers and floormen.....	46.9	22.50	$\frac{1}{2}$	$\frac{1}{2}$	8 - 8 - 48		46.9	22.50	8 - 8 - 48	
Grand Rapids, Mich.:										
Head pressmen.....	5 37.5	18.00	$\frac{1}{2}$	2	8 - 8 - 48		37.5	18.00	8 - 8 - 48	
Indianapolis, Ind.:										
Head pressmen.....	55.2	26.50	$\frac{1}{2}$	6 1	8 - 8 - 48		54.2	26.00	8 - 8 - 48	
Tension men and brakemen.....	49.0	23.50	$\frac{1}{2}$	6 1	8 - 8 - 48		46.9	22.50	8 - 8 - 48	
Others and platers.....	47.9	23.00	$\frac{1}{2}$	6 1	8 - 8 - 48		45.8	22.00	8 - 8 - 48	
Riggers.....	41.7	20.00	$\frac{1}{2}$	6 1	8 - 8 - 48		39.6	19.00	8 - 8 - 48	
Kansas City, Mo.:										
Head pressmen.....	53.1	25.50	$\frac{1}{2}$	1	8 - 8 - 48		53.1	25.50	8 - 8 - 48	
Journeymen.....	46.9	22.50	$\frac{1}{2}$	1	8 - 8 - 48		46.9	22.50	8 - 8 - 48	
Milwaukee, Wis.:										
Head pressmen.....	7 50.6	24.30	$\frac{1}{2}$	2	8 - 8 - 48		48.1	23.10	8 - 8 - 48	
Journeymen.....	6 44.4	21.30	$\frac{1}{2}$	2	8 - 8 - 48		42.7	20.50	8 - 8 - 48	
Minneapolis, Minn.:										
Head pressmen.....	50.0	24.00	$\frac{1}{2}$	1	8 - 8 - 48		50.0	24.00	8 - 8 - 48	
Journeymen.....	43.8	21.00	$\frac{1}{2}$	1	8 - 8 - 48		43.8	21.00	8 - 8 - 48	
Moline and Rock Island, Ill.:										
Head pressmen.....	5 56.1	26.95	$\frac{1}{2}$	9 2	8 - 8 - 48		49.0	23.50	8 - 8 - 48	
Journeymen.....	5 43.5	20.90	$\frac{1}{2}$	9 2	8 - 8 - 48		37.5	18.00	8 - 8 - 48	
Omaha, Nebr.:										
Head pressmen.....	5 50.0	24.00	$\frac{1}{2}$	10 1	8 - 8 - 48		50.0	24.00	8 - 8 - 48	
Journeymen.....	5 40.6	19.50	$\frac{1}{2}$	10 1	8 - 8 - 48		40.6	19.50	8 - 8 - 48	
Peoria, Ill.:										
Head pressmen.....	53.6	30.00	$\frac{1}{2}$	1	8 - 8 - 56		53.6	30.00	8 - 8 - 56	
Journeymen.....	37.5	18.00	$\frac{1}{2}$	1	8 - 8 - 48		37.5	18.00	8 - 8 - 48	

¹ And various bonuses. More than half of the members received more than the scale; amount not reported.

² For holidays, full day's pay for 5 hours' work.

³ Scale became 50 cents on Sept. 5, 1918.

⁴ 50 per cent of the members received \$1.50 and 50 per cent \$4 per week more than the scale.

⁵ More than half of the members received more than the scale; amount not reported.

⁶ For Sundays, on 6-day newspapers, time and one-half.

⁷ More than half of the members received more than the scale; amount not reported. Scale became 51.9 cents on Sept. 1, 1918.

⁸ Scale became 45.6 cents on Sept. 1, 1918.

⁹ For Sundays; for holidays regular rate.

¹⁰ For Sundays; for holidays time and one-half.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PRESSMEN, WEB PRESSES: Day work—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concluded.									
St. Louis, Mo.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Head pressmen.....	62.5	30.00	1½	1 ¹	8-8-48	.....	57.5	27.60	8-8-48
Journeyman.....	53.8	25.80	1½	1	8-8-48	.....	48.8	23.40	8-8-48
St. Paul, Minn.:									
Head pressmen.....	57.3	27.50	2 1½	1	8-8-48	.....	57.3	27.50	8-8-48
Journeyman.....	46.9	22.50	2 1½	1	8-8-48	.....	46.9	22.50	8-8-48
Wichita, Kans.:									
Head pressmen.....	60.0	27.00	1½	5 1½	7½-7½-45	.....	60.0	27.00	7½-7½-45
Journeyman.....	40.0	18.00	1½	5 1½	7½-7½-45	.....	40.0	18.00	7½-7½-45
SOUTH CENTRAL.									
Birmingham, Ala.:									
Foremen.....	72.9	35.00	1½	1	8-8-48	.....	72.9	35.00	8-8-48
First pressmen.....	50.0	24.00	1½	1	8-8-48	.....	50.0	24.00	8-8-48
Second pressmen.....	37.5	18.00	1½	1	8-8-48	.....	37.5	18.00	8-8-48
Third pressmen.....	29.2	14.00	1½	1	8-8-48	.....	29.2	14.00	8-8-48
Dallas, Tex.:									
Head pressmen.....	57.3	27.50	7 50c	1	8-8-48	.....	52.1	25.00	8-8-48
Journeyman.....	52.1	25.00	7 50c	1	8-8-48	.....	46.9	22.50	8-8-48
Houston, Tex.:									
Head pressmen.....	68.8	33.00	1½	1	8-8-48	.....	68.8	33.00	8-8-48
Journeyman.....	46.9	22.50	1½	1	8-8-48	.....	43.8	21.00	8-8-48
Little Rock, Ark.:									
Head pressmen.....	62.5	30.00	1	1	8-8-48	.....	62.5	30.00	8-8-48
First assistants.....	37.5	18.00	1½	1	8-8-48	.....	37.5	18.00	8-8-48
Second assistants.....	28.1	13.50	1½	1	8-8-48	.....	28.1	13.50	8-8-48
Louisville, Ky.:									
Head pressmen.....	46.9	22.50	1½	1	8-8-48	.....	46.9	22.50	8-8-48
Journeyman.....	46.9	22.50	1½	1	8-8-48	.....	40.6	19.50	8-8-48
Memphis, Tenn.:									
Head pressmen.....	60.0	27.00	1½	1	7½-7½-45	.....	58.7	26.40	7½-7½-45
Journeyman.....	53.4	24.00	1½	1	7½-7½-45	.....	52.0	23.40	7½-7½-45
Nashville, Tenn.:									
Head pressmen.....	62.5	30.00	1½	1	8-8-48	.....	62.5	30.00	8-8-48
Assistants.....	62.5	30.00	1½	1	8-8-48	.....	52.1	25.00	8-8-48
Journeyman.....	59.0	24.00	1½	1	8-8-48	.....	43.8	21.00	8-8-48
New Orleans, La.:									
Head pressmen.....	72.9	35.00	1½	1	8-8-48	.....	66.7	32.00	8-8-48
First assistants.....	43.8	21.00	1½	1	8-8-48	.....	45.8	22.00	8-8-48
Second assistants.....	40.6	19.50	1½	1	8-8-48	.....	41.7	20.00	8-8-48
Third assistants.....	37.5	18.00	1½	1	8-8-48	.....	39.6	19.00	8-8-48
WESTERN.									
Butte, Mont.:									
Head pressmen.....	66.7	30.00	9 1½	1	7½-7½-45	.....	66.7	30.00	7½-7½-45
Journeyman.....	60.0	27.00	9 1½	1	7½-7½-45	.....	60.0	27.00	7½-7½-45
Denver, Colo.:									
Head pressmen.....	65.6	31.50	1½	1	8-8-48	.....	62.5	30.00	8-8-48
Journeyman.....	53.1	25.50	1½	1	8-8-48	.....	50.0	24.00	8-8-48

¹ For Labor Day and Christmas, time and one-half.

² Double time after midnight.

³ Scale became 64.4 cents on June 1, 1918.

⁴ Scale became 44.4 cents on June 1, 1918.

⁵ For Sundays; for holidays, regular pay.

⁶ More than half of the members got more than the scale; amount not reported.

⁷ Rate in cents per hour.

⁸ Scale became 83.3 cents on June 1, 1918.

⁹ Double time after 4 hours.

¹⁰ Scale became 73.3 cents on June 1, 1918.

¹¹ A war bonus varying from \$1 to \$3 per week was added on July 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PRESSMEN, WEB PRESSES: Day work—Concluded.

Geographical division, city, and occupation.	May 15, 1918.					May 15, 1917.		Hours— Full days; Saturdays; Full week.
	Rate of wages—				Mos. with Sat- urday half holid- ay.	Rate of wages—		
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holid- ays.		Per hour.	Per week, full time.	
WESTERN—concluded.								
Los Angeles, Cal.:	<i>Cents.</i>	<i>Dolls.</i>		<i>Regular rate multiplied by—</i>		<i>Cents.</i>	<i>Dolls.</i>	
Head pressmen.....	63.5	30.50	1½	1	8 - 8 - 48	63.5	30.50	8 - 8 - 48
Journey men.....	57.3	27.50	1½	1	8 - 8 - 48	57.3	27.50	8 - 8 - 48
Tension men.....	60.4	29.00	1½	1	8 - 8 - 48	60.4	29.00	8 - 8 - 48
Portland, Oreg.:								
Head pressmen.....	68.8	33.00	1½	1	8 - 8 - 48	68.8	33.00	8 - 8 - 48
Journey men.....	56.3	27.00	1½	1	8 - 8 - 48	53.1	25.50	8 - 8 - 48
Salt Lake City, Utah:								
Head pressmen.....	68.8	33.00	1½	1	8 - 8 - 48	68.8	33.00	8 - 8 - 48
Journey men.....	56.3	27.00	1½	1	8 - 8 - 48	56.3	27.00	8 - 8 - 48
San Francisco, Cal.:								
Head pressmen.....	73.3	33.00	1½	1	7½ - 7½ - 45	68.9	31.00	7½ - 7½ - 45
Tension men.....	65.3	29.40	1½	1	7½ - 7½ - 45	60.7	27.30	7½ - 7½ - 45
Oilers and platers.....	61.3	27.60	1½	1	7½ - 7½ - 45	56.7	25.50	7½ - 7½ - 45
Floormen.....	57.3	25.80	1½	1	7½ - 7½ - 45	52.7	23.70	7½ - 7½ - 45
Seattle, Wash.:								
Head pressmen.....	70.1	33.66	1½	5 1	8 - 8 - 48	68.8	33.00	8 - 8 - 48
Journey men.....	63.8	30.60	1½	5 1	8 - 8 - 48	62.5	30.00	8 - 8 - 48
Spokane, Wash.:								
Head pressmen.....	68.8	33.00	1½	1	8 - 8 - 48	62.5	30.00	8 - 8 - 48
Journey men.....	56.3	27.00	1½	1	8 - 8 - 48	50.0	24.00	8 - 8 - 48

PRESSMEN, WEB PRESSES: Night work.

NORTH CENTRAL.									
Geographical division, city, and occupation.	Per hour.	Per week, full time.	For over-time.	For Sun-days and holid-ays.	Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holid- ay.	Per hour.	Per week, full time.	Hours— Full days; Saturdays; Full week.
Chicago, Ill.:									
Head pressmen.....	68.8	33.00	1½	2	8 - 8 - 48		68.8	33.00	8 - 8 - 48
Journey men.....	55.0	26.40	1½	2	8 - 8 - 48		55.0	26.40	8 - 8 - 48
Cincinnati, Ohio:									
Head pressmen.....	65.3	25.50	1½	1	8 - 8 - 48		53.1	25.50	8 - 8 - 48
Tension men.....	64.6	22.20	1½	1	8 - 8 - 48		46.3	22.20	8 - 8 - 48
Oilers and platers.....	64.3	20.70	1½	1	8 - 8 - 48		43.1	20.70	8 - 8 - 48
Cleveland, Ohio:									
Head pressmen.....	71.4	30.00	1½	2	7 - 7 - 42		60.7	25.50	7 - 7 - 42
Tension men and brake- men.....	60.7	25.50	1½	2	7 - 7 - 42		52.9	22.20	7 - 7 - 42
Oilers and platers.....	60.7	25.50	1½	2	7 - 7 - 42		42.9	18.00	7 - 7 - 42
Columbus, Ohio.....	48.8	23.40	1½	1	8 - 8 - 48		48.8	23.40	8 - 8 - 48
Des Moines, Iowa:									
Head pressmen.....	62.5	30.00	1	1	8 - 8 - 48		51.9	24.90	8 - 8 - 48
Tension men.....	50.0	24.00	1½	1½	8 - 8 - 48		41.1	19.75	8 - 8 - 48
Oilers.....	50.0	24.00	1½	1½	8 - 8 - 48		33.3	16.00	8 - 8 - 48
Detroit, Mich.:									
Head pressmen.....	62.5	27.50	1½	1	8 7 - 8 - 44		62.5	27.50	8 7 - 8 - 44
Journey men.....	54.5	24.00	1½	1	8 7 - 8 - 44		54.5	24.00	8 7 - 8 - 44
Grand Rapid, Mich.:									
Head pressmen.....	37.5	18.00	1½	1	8 - 8 - 48		37.5	18.00	8 - 8 - 48

¹ Scale became 59.4 cents on June 1, 1918.

² Scale became 75 cents on Aug. 19, 1918.

³ More than half of the members received more than the scale; amount not reported.

⁴ Scale became 62.5 cents on Aug. 19, 1918.

⁵ For Sundays; for holidays, full day's pay for 5 hours' work.

⁶ And various bonuses. More than half of the members received more than the scale; amount not reported.

⁷ Scale became 51.9 cents on Sept. 5, 1918.

⁸ 8 hours on Friday.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PRESSMEN, WEBB PRESSES: Night work—Continued.

Geographical division, city, and occupation.	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.	
NORTH CENTRAL—concluded.									
Indianapolis, Ind.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Head pressmen.....	58.3	28.00	1½	1	8 - 8 - 48		57.3	27.50	8 - 8 - 48
Tension men and brake- men.....	52.1	25.00	1½	1	8 - 8 - 48		50.0	24.00	8 - 8 - 48
Oilers and platers.....	51.0	24.50	1½	1	8 - 8 - 48		49.0	23.50	8 - 8 - 48
Riggers.....	44.8	21.50	1½	1	8 - 8 - 48		42.7	20.50	8 - 8 - 48
Kansas City, Mo.:									
Head pressmen.....	53.1	25.50	1½	1	8 - 8 - 48		53.1	25.50	8 - 8 - 48
Journeyman.....	46.9	22.50	1½	1	8 - 8 - 48		46.9	22.50	8 - 8 - 48
Milwaukee, Wis.:									
Head pressmen.....	50.6	24.30	1½	1	8 - 8 - 48		48.1	23.10	8 - 8 - 48
Journeyman.....	44.4	21.30	1½	1	8 - 8 - 48		42.7	20.50	8 - 8 - 48
Omaha, Nebr.:									
Head pressmen.....	50.0	24.00	1½	5	8 - 8 - 48		50.0	24.00	8 - 8 - 48
Journeyman.....	40.6	19.50	1½	5	8 - 8 - 48		34.4	16.50	8 - 8 - 48
Peoria, Ill.:									
Head pressmen.....	50.0	28.00	1½	1	8 - 8 - 56		50.0	28.00	8 - 8 - 56
Journeyman.....	37.5	21.00	1½	1	8 - 8 - 56		37.5	21.00	8 - 8 - 56
St. Louis, Mo.:									
Head pressmen.....	65.9	30.00	1½	6	7½ - 8 - 45½		60.7	27.60	7½ - 8 - 45½
Journeyman.....	57.1	25.80	1½	6	7½ - 8 - 45½		51.4	23.40	7½ - 8 - 45½
St. Paul, Minn.:									
Head pressman.....	65.5	27.50	7	1½	7 - 7 - 42		65.5	27.50	7 - 7 - 42
Journeyman.....	53.6	22.50	7	1½	7 - 7 - 42		53.6	22.50	7 - 7 - 42
SOUTH CENTRAL.									
Birmingham, Ala.:									
Foremen.....	83.3	35.00	1½	1	7 - 7 - 42		83.3	35.00	7 - 7 - 42
First pressmen.....	57.1	24.00	1½	1	7 - 7 - 42		57.1	24.00	7 - 7 - 42
Second pressmen.....	42.9	18.00	1½	1	7 - 7 - 42		42.9	18.00	7 - 7 - 42
Third pressmen.....	43.3	14.00	1½	1	7 - 7 - 42		33.3	14.00	7 - 7 - 42
Dallas, Tex.:									
Head pressmen.....	60.4	29.00	1½	1	8 - 8 - 48		52.1	25.00	8 - 8 - 48
Journeyman.....	55.2	26.50	1½	1	8 - 8 - 48		46.9	22.50	8 - 8 - 48
Houston, Tex.:									
Head pressmen.....	75.0	33.00	1½	1	7 - 9 - 44		75.0	33.00	7 - 9 - 44
Journeyman.....	51.1	22.50	1½	1	7 - 9 - 44		47.7	21.00	7 - 9 - 44
Little Rock, Ark.:									
Head pressmen.....	62.5	30.00	1	1	8 - 8 - 48		62.5	30.00	8 - 8 - 48
First assistants.....	41.3	19.80	1	1	8 - 8 - 48		39.4	18.90	8 - 8 - 48
Second assistants.....	31.3	15.00	1	1	8 - 8 - 48		30.0	14.40	8 - 8 - 48
Third assistants.....	25.6	12.30	1	1	8 - 8 - 48		23.8	11.40	8 - 8 - 48
Louisville, Ky.:									
Head pressmen.....	52.3	22.50	1½	1	7 - 8 - 43		52.3	22.50	7 - 8 - 43
Journeyman.....	52.3	22.50	1½	1	7 - 8 - 43		45.3	19.50	7 - 8 - 43

¹ For Sundays, on 6-day newspapers, time and one-half.

² More than half of the members received more than the scale; amount not reported. Scale became 51.9 cents on Sept. 1, 1918.

³ Scale became 45.6 cents on Sept. 1, 1918.

⁴ More than half of the members received more than the scale; amount not reported.

⁵ For Sundays; for holidays, time and one-half.

⁶ Double time after 8 hours on Sunday.

⁷ Double time after 12 o'clock, noon.

⁸ Rate in cents per hour.

⁹ More than half of the members received more than the scale; amount not reported. Scale became 42.5 cents in October, 1918.

¹⁰ More than half of the members received more than the scale; amount not reported. Scale became 33.1 cents in October, 1918.

¹¹ More than half of the members received more than the scale; amount not reported. Scale became 28.1 cents in October, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

PRESSMEN, WEBB PRESSES: Night work—Concluded.

Geographical division, city, and occupation.	May 15, 1918.					May 15, 1917.			
	Rate of wages—				Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holl- iday.	Rate of wages—		Hours— Full days; Saturdays; Full week.
	Per hour.	Per week, full time.	For over- time.	For Sun- days and holl- idays.			Per hour.	Per week, full time.	
SOUTH CENTRAL—concluded.									
Memphis, Tenn.:	<i>Cents.</i>	<i>Dolls.</i>	<i>Regular rate multiplied by—</i>				<i>Cents.</i>	<i>Dolls.</i>	
Head pressmen.....	60.0	27.00	1½	1	7½- 7½-45		58.7	26.40	7½- 7½-45
Journeyman.....	53.3	24.00	1½	1	7½- 7½-45		52.0	23.40	7½- 7½-45
New Orleans, La.:									
Head pressmen.....	72.9	35.00	1½	1	8 - 8 -48		66.7	32.00	8 - 8 -48
First assistants.....	43.8	21.00	1½	1	8 - 8 -48		45.8	22.00	8 - 8 -48
Second assistants.....	37.5	18.00	1½	1	8 - 8 -48		41.7	20.00	8 - 8 -48
WESTERN.									
Butte, Mont.:									
Head pressmen.....	173.3	33.00	2 1½	1	7½- 7½-45		73.3	33.00	7½- 7½-45
Journeyman.....	63.3	28.50	2 1½	1	7½- 7½-45		63.3	28.50	7½- 7½-45
Denver, Colo.:									
Head pressmen.....	65.6	31.50	1½	1	8 - 8 -48		62.5	30.00	8 - 8 -48
Journeyman.....	53.1	25.50	1½	1	8 - 8 -48		50.0	24.00	8 - 8 -48
Los Angeles, Cal.:									
Head pressmen.....	70.9	30.50	1½	1	7 - 8 -43		70.9	30.50	7 - 8 -43
Journeyman.....	64.0	27.50	1½	1	7 - 8 -43		64.0	27.50	7 - 8 -43
Tension men.....	67.4	29.00	1½	1	7 - 8 -43		67.4	29.00	7 - 8 -43
Portland, Oreg.:									
Head pressmen.....	79.1	36.00	1½	1	7½- 8 -45½		79.1	36.00	7½- 8 -45½
Journeyman.....	62.6	28.50	1½	1	7½- 8 -45½		59.3	27.00	7½- 8 -45½
Salt Lake City, Utah:									
Head pressmen.....	68.8	33.00	1½	1	8 - 8 -48		68.8	33.00	8 - 8 -48
Journeyman.....	56.3	27.00	1½	1	8 - 8 -48		56.3	27.00	8 - 8 -48
San Francisco, Cal.:									
Head pressmen.....	73.3	33.00	1½	1	7½- 7½-45		68.9	31.00	7½- 7½-45
Tension men.....	65.3	29.40	1½	1	7½- 7½-45		60.7	27.30	7½- 7½-45
Oilers and platers.....	61.3	27.60	1½	1	7½- 7½-45		56.7	25.50	7½- 7½-45
Floormen.....	57.3	25.80	1½	1	7½- 7½-45		52.7	23.70	7½- 7½-45
Seattle, Wash.:									
Head pressmen.....	80.1	33.66	1½	(9)	7 - 7 -42		78.6	33.00	7 - 7 -42
Journeyman.....	72.9	30.60	1½	(8)	7 - 7 -42		71.4	30.00	7 - 7 -42

STEREOTYPERS: Day work.

NORTH CENTRAL.									
Geographical division, city, and occupation.	Per hour.	Per week, full time.	For over-time.	For Sundays and holidays.	Hours— Full days; Saturdays; Full week.	Mos. with Sat- urday half holl- iday.	Per hour.	Per week, full time.	Hours— Full days; Saturdays; Full week.
Chicago, Ill.....	56.3	27.00	1065c	11 2	8 - 8 -48		56.3	27.00	8 - 8 -48
Cincinnati, Ohio.....	52.1	25.00	1½	1275c	8 - 8 -48		51.0	24.50	8 - 8 -48
Cleveland, Ohio.....	58.1	27.90	1½	1½	8 - 8 -48		58.1	27.90	8 - 8 -48
Columbus, Ohio.....	53.1	25.50	1½	14 2	8 - 8 -48		49.0	23.50	8 - 8 -48

1 More than half of the members received more than the scale; amount not reported. Scale became 83.3 cents on June 1, 1918.
 2 Double time after 4 hours.
 3 Scale became 73.3 cents on June 1, 1918.
 4 A war bonus of \$1 per week was added on July 1, 1918.
 5 Scale became 66.7 cents on June 1, 1918.
 6 More than half of the members received more than the scale; amount not reported. Scale became 78.1 cents on Aug. 19, 1918.
 7 More than half of the members received more than the scale; amount not reported.
 8 Scale became 65.6 cents on Aug. 19, 1918.
 9 For Sundays; for holidays, full day's pay for 5 hours' work.
 10 Rate in cents per hour.
 11 For Sundays; for holidays, regular rate.
 12 Rate in cents per hour for Sundays; for holidays, full day's pay for 5 hours' work.
 13 Scale became 55.2 cents on Dec. 7, 1918.
 14 For Sundays; for holidays, full day's pay for 6 hours' work

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

PRINTING AND PUBLISHING: NEWSPAPER—Continued.

STEREOTYPERS: Day work—Concluded.

Geographical division, city, and occupation.	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 holi- days.			Per hour.	Per week, full time.	
NORTH CENTRAL—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.	141.7	23.00	1½	2	1	8-8-48	33.6	19.00	8-8-48
Des Moines, Iowa.	147.4	22.75	1½	1	1	8-8-48	347.4	22.75	8-8-48
Detroit, Mich.	57.8	27.75	1½	1	1½	8-8-48	57.8	27.75	8-8-48
Grand Rapids, Mich.	48.1	23.10	1½	4	1	8-8-48	143.8	21.00	8-8-48
Indianapolis, Ind.	50.0	24.00	1½	1	1	8-8-48	49.0	23.50	8-8-48
Kansas City, Mo.	53.4	28.50	1½	1	1	8-8-48	59.4	28.50	8-8-48
Milwaukee, Wis.	47.9	23.00	1½	2	1	8-8-48	46.9	22.50	8-8-48
Minneapolis, Minn.	45.3	21.75	1½	1	1	8-8-48	45.3	21.75	8-8-48
Omaha, Nebr.	50.0	24.00	1½	1	1	8-8-48	50.0	24.00	8-8-48
Peoria, Ill.	43.8	21.00	1½	1	1	8-8-48	40.6	19.50	8-8-48
St. Louis, Mo.	62.5	30.00	1½	1	1	8-8-48	57.5	27.00	8-8-48
St. Paul, Minn.	45.3	21.75	1½	1	1	8-8-48	43.8	21.00	8-8-48
Wichita, Kans.	547.9	23.00	1½	6	1½	8-8-48	145.8	22.00	8-8-48
SOUTH CENTRAL.									
Birmingham, Ala.	54.4	26.10	1½	1	1	8-8-48	50.0	24.00	8-8-48
Dallas, Tex.	50.0	24.00	1½	1	1	8-8-48	50.0	24.00	8-8-48
Houston, Tex.	750.0	24.00	1½	1	1	8-8-48	50.0	24.00	8-8-48
Little Rock, Ark.	46.9	22.50	1½	1½	1	8-8-48	46.9	22.50	8-8-48
Louisville, Ky.	50.0	24.00	1½	2	1	8-8-48	46.9	22.50	8-8-48
Memphis, Tenn.	56.3	27.00	1½	1	1	8-8-48	56.3	27.00	8-8-48
New Orleans, La.	500.0	21.00	50c	1	10	7-7-42	50.0	21.00	10 7-7-42
WESTERN.									
Butte, Mont.	1066.7	30.00	1½	1	1	7½-7½-45	66.7	30.00	7½-7½-45
Denver, Colo.	1358.0	28.25	1½	1	1	8-8-48	56.3	27.00	8-8-48
Los Angeles, Cal.	59.4	28.50	1½	1½	1	8-8-48	56.3	27.00	8-8-48
Portland, Oreg.	62.5	30.00	1½	1	1	8-8-48	56.3	27.00	8-8-48
Salt Lake City, Utah.	62.5	30.00	1½	1	1	8-8-48	56.3	27.00	8-8-48
San Francisco, Cal.	66.7	30.00	1½	1	1	7½-7½-45	66.7	30.00	7½-7½-45
Seattle, Wash.	78.0	32.76	115c	10	1	7-7-42	76.4	32.10	7-7-42
Spokane, Wash.	56.3	27.00	1½	1	1	8-8-48	53.1	25.50	8-8-48

STEREOTYPERS: Night work.

NORTH CENTRAL.									
Chicago, Ill.	56.3	27.00	65c	1	1	8-8-48	56.3	27.00	8-8-48
Cincinnati, Ohio.	53.8	25.00	1½	1	1	14 7-9½-46½	52.7	24.50	14 7-9½-46½
Cleveland, Ohio.	65.3	29.40	1½	1½	1	7½-7½-45	65.3	29.40	7½-7½-45

¹ More than half of the members received more than the scale; amount not reported.

² Double-time for full day, if men work over 6 hours.

³ Five per cent of the members received \$1, 5 per cent \$3.25, 5 per cent \$4.25, 5 per cent \$5.25, 5 per cent \$5.75, and 5 per cent \$6.25 per week more than the scale.

⁴ For Sundays; for holidays, full day's pay for 4 hours' work.

⁵ Scale became 50 cents on July 1, 1918.

⁶ For Sundays; for holidays, regular rate.

⁷ Scale became 95.8 cents on June 2, 1918.

⁸ Scale became 52.1 cents, and 48 hours on June 5, 1918.

⁹ Rate in cents per hour.

¹⁰ Minimum; maximum, 8 hours per day, 48 per week.

¹¹ Scale became 76.7 cents on June 1, and 80 cents on Sept. 1, 1918.

¹² A bonus of \$1.25 per week was added on June 1, 1918.

¹³ For Sundays; for holidays full day's pay for 5 hours' work.

¹⁴ 9 hours on Friday.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED TRADES IN THE NORTH CENTRAL, SOUTH CENTRAL, AND WESTERN STATES, MAY 15, 1918, AND MAY 15, 1917—Concluded.

PRINTING AND PUBLISHING: NEWSPAPER—Concluded.

STEREOTYPERS: Night work—Concluded.

Geographical division, city, and occupation.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours— Full days; Saturdays: Full week.	Mos. with Sat- urday half holy- 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.	
NORTH CENTRAL—conclid.									
	Cents.	Dolls.	Regular rate multiplied by—				Cents.	Dolls.	
Columbus, Ohio.....	1 55.2	26.50	1½	2	8 -8 -48		51.0	24.50	8 -8 -48
Detroit, Mich.....	66.0	28.40	1½	1	7 -8 -43		66.0	28.40	7 -8 -43
Grand Rapids, Mich.....	55.0	23.10	1½	1	7 -7 -42		50.0	21.00	7 -7 -42
Indianapolis, Ind.....	51.0	24.50	1½	1	8 -8 -48		50.0	24.00	8 -8 -48
Kansas City, Mo.....	59.4	28.50	1½	1	8 -8 -48		59.4	28.50	8 -8 -48
Milwaukee, Wis.....	47.9	23.00	1½	1	8 -8 -48		46.9	22.50	8 -8 -48
Omaha, Nebr.....	53.1	25.50	1½	1	8 -8 -48		53.1	25.50	8 -8 -48
Peoria, Ill.....	43.8	21.00	1½	1	8 -8 -48		40.6	19.50	8 -8 -48
St. Louis, Mo.....	71.4	30.00	1½	1	7 -7 -42		65.7	27.60	7 -7 -42
St. Paul, Minn.....	45.3	21.75	1½	1	8 -8 -48		43.8	21.00	8 -8 -48
Wichita, Kans.....	47.9	23.00	1½	1	8 -8 -48		45.8	22.00	8 -8 -48
SOUTH CENTRAL.									
Birmingham, Ala.....	54.4	26.10	1½	1	8 -8 -48		50.0	24.00	8 -8 -48
Dallas, Tex.....	53.1	25.50	1½	1	8 -8 -48		53.1	25.50	8 -8 -48
Houston, Tex.....	50.0	24.00	1½	1	8 -8 -48		50.0	24.00	8 -8 -48
Little Rock, Ark.....	64.9	23.70	1½	7	8 -8 -48		48.1	23.10	8 -8 -48
Louisville, Ky.....	50.0	24.00	1½	2	8 -8 -48		46.9	22.50	8 -8 -48
Memphis, Tenn.....	56.7	25.50	1½	1	7½-7½-45		56.7	25.50	7½-7½-45
Nashville, Tenn.....	44.9	22.50	1½	1	8 -8 -48		46.9	22.50	8 -8 -48
New Orleans, La.....	57.1	24.00	1½	1	7 -7 -42		57.1	24.00	7 -7 -42
WESTERN.									
Butte, Mont.....	166.7	30.00	1½	1	7½-7½-45		66.7	30.00	7½-7½-45
Denver, Colo.....	158.9	28.25	1½	1	8 -8 -48		56.3	27.00	8 -8 -48
Los Angeles, Cal.....	59.4	28.50	1½	1½	8 -8 -48		56.3	27.00	8 -8 -48
Portland, Oreg.....	62.5	30.00	1½	1	8 -8 -48		56.3	27.00	8 -8 -48
Salt Lake City, Utah.....	62.5	30.00	1½	1	8 -8 -48		56.3	27.00	8 -8 -48
San Francisco, Cal.....	66.7	30.00	1½	1	7½-7½-45		66.7	30.00	7½-7½-45
Seattle, Wash.....	76.6	32.16	115c	13	7 -7 -42		75.0	31.50	7 -7 -42
Spokane, Wash.....	56.3	27.00	1½	1	8 -8 -48		53.1	25.50	8 -8 -48

1 Scale became 59.3 cents on Dec. 7, 1918.
 2 For Sundays; for holidays, full day's pay for 6 hours' work.
 3 More than half of the members received more than the scale; amount not reported.
 4 Scale became 50 cents on July 1, 1918.
 5 Scale became 57.5 cents on June 2, 1918.
 6 Scale became 50 cents on Dec. 1, 1918.
 7 For Sundays; for holidays, time and one-half.
 8 Scale became 60 cents on July 1, 1918.
 9 Scale became 61.3 cents on June 5, 1918.
 10 Scale became 76.7 cents on Sept. 1, 1918.
 11 A war bonus of 29 cents per day was added on June 1, 1918.
 12 Rate in cents per hour.
 13 For Sundays; for holidays, full day's pay for 5 hours' work.

BONUSES AND ALLOWANCES TO FRENCH CIVIL EMPLOYEES OF THE STATE.

On August 4, 1917,¹ the French Parliament authorized in the budget a special credit amounting to 49,400,439 francs (\$9,534,285) for temporary allowances to civil employees of the State.

A ministerial decree of August 18, 1917, fixed the amount to be allowed the various classes of employees. Persons under 16 years of age; temporary and casual employees; those whose public functions are only incidental to their occupation; and those who are permitted to accept outside employment or to engage in commerce or industry are excluded from the benefits.

An increase of 540 francs (\$104.22) is allowed all employees whose yearly remuneration does not exceed 3,600 francs (\$695). Those receiving over this amount but not over 3,780 francs (\$730) are granted a bonus sufficient to give them at least 4,140 francs (\$799). Those receiving between 3,600 francs and 5,000 francs (\$695 and \$965) are granted a bonus of 360 francs (\$69.48). Those receiving between 5,000 francs and 5,360 francs (\$965 and \$1,034) are granted a bonus sufficient to bring the salary up to 5,360 francs (\$1,034).

In addition to the bonus, a family allowance is granted, depending on the number of dependents. Heads of families are granted 100 francs (\$19.30) for each of the first two children, and 200 francs (\$38.60) for each additional child under 16 years of age or incapacitated for labor. In cases where both father and mother are in the service the family allowance is payable only when the higher of the two salaries does not exceed 5,000 francs (\$965). This allowance is not in addition to allowances previously granted, but selection may be made of the most advantageous.

The decree became effective as of July 1, 1917.

On March 22, 1918,² a further credit of 60,640,251 francs (\$11,703,568) for the same purpose was added to the budget. Under the decree of March 27, 1918, the bonus of 360 francs (\$69.48) fixed by the decree of August 18, 1917, is extended to include persons whose remuneration does not exceed 6,000 francs (\$1,158). All officials, agents, assistants, employees, and laborers in the civil service of the State, whether permanently, temporarily, or casually employed, exception being made as in the previous decree, whose net remuneration does not exceed 6,000 francs (\$1,158), are granted a bonus of 540 francs (\$104.22), in addition to the 540 francs and 360 francs (\$69.48) already granted by the decree of August 18, 1917.

Day laborers and those paid by the task or piece are entitled to a supplemental bonus of 1.80 francs (34.7 cents) a day, or a maximum

¹ Dalloz. Guerre de 1914. Documents Officiels. June 1-Sept. 1, 1917. pp. 314, 412.

² Le Bulletin Législatif. Dalloz. August and September, 1918, pp. 195, 222.

of 45 francs (\$8.69) per month, provided their daily earnings are less than 20 francs (\$3.86).

In cases where the remuneration is over 6,000 francs (\$1,158) a supplemental bonus is granted sufficient to place the earnings of these employees on a par with those receiving 6,000 francs plus the bonuses granted, and similar regulations are to be applicable to day, task, or piece workers.

Family allowances are modified as follows: They apply to all heads of families whose remuneration does not exceed 8,100 francs (\$1,563) and are fixed at 150 francs (\$28.95) per year for the first two children and 300 francs (\$57.90) for each additional child. Children receiving State aid are not included, except in so far as this allowance is greater than the State aid. No bonus or family allowance is subject to distraint, etc.

This decree became effective January 1, 1918.

A still further credit of 299,333,572 francs (\$57,771,379) was voted on November 14, 1918,¹ for the purpose of according during the war exceptional bonuses to civil employees of the State and family allowances to civil and military employees.

The distribution of this supplemental appropriation is determined by the decree of November 15, 1918.²

The special bonuses provided by this decree are in addition to those granted by the decrees above mentioned.

Officials, agents, assistants, employees, and laborers in the civil service of the State, whether permanently, temporarily, or casually employed, are covered by the decree which grants during the war an exceptional bonus fixed at 720 francs (\$138.96) per year—

(1) Without regard to family conditions, to employees receiving net emoluments less than 6,000 francs (\$1,158).

(2) To married persons having no children and receiving not more than 8,000 francs (\$1,544).

(3) To married, widowed, or divorced persons having two children and receiving not more than 10,000 francs (\$1,930).

(4) To married, widowed, or divorced persons having more than two children and receiving not more than 12,000 francs (\$2,316).

Unmarried persons maintaining ascendants, brothers, sisters, or children (either recognized or adopted) are considered as heads of families and are entitled to the bonus under the following limitations: When supporting ascendants and receiving not more than 8,000 francs (\$1,544); when supporting two children, brothers and sisters included, and receiving not more than 10,000 francs (\$1,930); and when supporting more than two children, brothers and sisters included, and receiving not more than 12,000 francs (\$2,316).

¹ Journal Officiel de la République Française, Nov. 15, 1918, p. 9877.

² Idem, Nov. 16, 1918, p. 9918.

Persons in classes receiving 6,000 francs, 8,000 francs, 10,000 francs, and 12,000 francs and receiving remuneration greater than these amounts, respectively, are granted a reduced bonus so as to place their remuneration, including bonuses, on a par with the remuneration limited to each class, respectively, viz, 6,720 francs (\$1,297), 8,720 francs (\$1,683), etc.

All salaries, allowances, and extra pay allowed by the State, province, commune, colony, public establishment, as well as wages paid by a private employer and forming a part of the employee's regular income, and the value of lodging, if included in the salary, are to be considered in calculating the net remuneration. From this sum deduction is made of the amount retained toward pensions and all temporary increases and allowances.

The number of living children, regardless of age, and the number of those who have died as a result of the war are to be considered in determination of temporary bonus to be granted.

Employees paid by the day, task, or piece shall be paid a bonus of 2.40 francs (46.3 cents) per day, but not exceeding 60 francs (\$11.58) per month. For calculating yearly earnings 300 days shall be considered equivalent to a year's work.

The following classes of employees are not included as beneficiaries: Officials, agents, and assistants under 16 years of age; those whose public functions are incidental to their occupation or who are permitted while in the service to accept employment in an occupation or engage in commerce or industry; and unmarried persons, widowers, or divorced persons, having no dependent children and who receive gratuitous board and lodging.

Those whose salaries have been increased during the war are entitled to a bonus equal to the difference between the increased salary and the amount which otherwise they would receive under this decree, provided such bonus does not exceed 2 francs (38.6 cents) per day.

The provision of former decrees fixing maximum emoluments in excess of which family allowances were not granted is repealed, and an extra exceptional allowance of 180 francs (\$34.74) per year per child is granted.

The bonuses and family allowances granted are not subject to any process of distraint.

The act is effective as from July 1, 1918.

MINIMUM WAGE.

MINIMUM WAGE RATES FOR WOMEN ESTABLISHED BY NATIONAL WAR LABOR BOARD.¹

Two of the principles which the National War Labor Board has kept in mind in making its awards are the following:

(1) If it shall become necessary to employ women on work ordinarily performed by men, they must be allowed equal pay for equal work and must not be allotted tasks disproportionate to their strength.

(2) (a) The right of workers, including common laborers, to a living wage is hereby declared. (b) In fixing wages minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort.

In a number of awards made by the National War Labor Board since its organization in April, 1918, and down to November 21, one or both of these principles have been reaffirmed by specific provision for the payment of minimum rates of wages to women workers and for the protection of female workers against the performance of work beyond their strength. The first awards to recognize female employees in this manner were made, on July 31, affecting employees of the General Electric Co. in its works at Pittsfield, Mass. (Docket No. 19), and Schenectady, N. Y. (Docket No. 127):² In the former award paragraph 4, after fixing a minimum wage of 42 cents per hour for adult male employees, reads as follows:

Women performing the same work as men shall receive the same pay, but in no case shall any female 21 years of age or over, of 6 months' experience in the plant, receive less than 30 cents an hour.

At the Schenectady works the female employees were given an increase of 20 per cent in their wages, with the proviso that "no female shall receive less than \$15 per week." Further provision is made that—

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

In the case of the scrub women a minimum wage of \$10.50 per week for the present hours of service³ is granted.

On November 22 a supplemental award was issued by the board, granting a horizontal increase of 20 per cent in the wages of all classes

¹ Cf. also article on Federal policy in the employment of women, in the MONTHLY LABOR REVIEW for November, 1918 (pp. 182-190).

² These two awards are noted in the MONTHLY LABOR REVIEW for September, 1918 (p. 34).

³ The rates applying to female employees in this plant are based on a week of 48½ hours.

of female clerical workers, provided "that every adult female worker 18 years of age or over shall receive a minimum wage of at least \$16.50 a week." All bonuses paid by the company shall be considered as wages in computing the amount of increase due each employee.

On August 28 the board issued an award in the case of *Employees v. Employers in Munition and Related Trades, Bridgeport, Conn.* (Docket No. 132),¹ where, it will be remembered, the controversy, which originally concerned only the machinists, was subsequently extended to include practically all the workers in the munition and related trades in that city. In this case the board included in its award the following paragraph concerning minimum wages for females and equal pay for equal work:

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.

Two awards, issued on October 11, provide a minimum wage for female employees of 18 years of age or over of 30 cents an hour, and also that in the case of women under 21 years of age this minimum "shall not be rigidly applied to inexperienced beginners or apprentices." It is further directed that "any difference arising in this regard shall be decided by the committee representing the workers and the management." These two awards are *Employees v. The Willys-Overland Co., Elyria, Ohio* (Docket No. 95), and *Employees v. St. Louis Car Co., St. Louis, Mo.* (Docket No. 4a).²

The same minimum wage granted to men was made to apply to women in the board's award affecting the *Amalgamated Association of Street and Electric Railway Employees of America, Division No. 764, v. The Kansas City Railways Co.* (Docket No. 265), handed down on October 24. This provision, under the head "status of women employees," is as follows:

Women employees shall receive equal pay with men for the same work, and the guaranteed minimum for women shall be increased from \$60 per month to \$75 per month, as now obtains in the case of the men.

Several other awards not specifically mentioned in this article affecting street-railway employees each contain a provision that where women are employed in the same classification as men they shall be paid equal pay for equal work.

A minimum wage for female apprentices, as well as for other women workers, is specifically fixed in paragraph 4 of the award in the case of *Employees v. Standard Wheel Co., Terre Haute, Ind.* (Docket

¹ This award was noted in the MONTHLY LABOR REVIEW for October, 1918 (p. 19).

² These two awards were noted in the MONTHLY LABOR REVIEW for November, 1918 (pp. 34, 36).

No. 176), issued on October 25. This award reaffirms the principles of the board as to collective bargaining, hours of labor, and overtime, and in paragraph 4 makes the following statement as to women's wages and conditions of labor:

The principle of equal pay for women for equal work, and that women shall not be allotted tasks disproportionate to their strength, is affirmed. The question of a wage scale and working conditions for women employees shall be determined as provided in section 3¹ of this award, provided that the minimum wage for women shall not be less than 30 cents per hour, except in the cases of apprentices or new employees, who may be paid not less than 20 cents per hour for the first 30-day period of their employment.

NEW WAGE SCALE FOR LAUNDRY WORKERS, LITTLE ROCK, ARK.

The first award affecting an industry usually employing a larger proportion of women than men is that issued by the board on November 9, applying to workers in laundries at Little Rock, Ark. (Docket No. 233). This award is important, since it fixes for laundry workers a minimum wage established upon the basis of testimony which seemed to show that the minimum wage of \$6 per week for the first six months and \$7.50 thereafter, provided by State law, "can not be taken as a fair standard under the war conditions now existing." Since the award deals almost entirely with women workers, its provisions, preceded by a statement of the case, are here set out in full:

The laundries involved as respondents in this case had contracts with Local No. 36, Laundry Workers' International Union, for three years, in periods of one year each beginning May 1, 1915, and ending May 1, 1918, in the form shown by Exhibit 6 to the testimony of F. A. Randall.

On April 17 Mr. Randall, the business agent of the union, presented to the laundry owners a contract for another year from May 1, 1918; the owners declined to sign the agreement and stated that they did not want to have anything to do with the union; and on May 29 a strike occurred.

The laundries were doing much work for the officers and men at Camp Pike, and when the strike occurred Col. Rucker, of that camp, appeared at a meeting of the representatives of the two sides, together with the State labor commissioner, which resulted in the execution of an agreement by the laundry owners on May 30 to the effect that at the end of three weeks a contract would be executed, "the terms thereof to be agreed upon by a committee consisting of six laundry representatives and six employees or their representatives," and in case that committee failed to agree, the points of disagreement were to be submitted to the National War Labor Board.

Local parties tried to mediate, but without success. The committee referred to in the agreement did meet once or twice, but could not come to a settlement, and thereupon the matter was referred to the National War Labor Board. More than 200 pages of testimony were taken by the examiner, both sides being afforded opportunity to present their case and their witnesses. Formal submission was signed by the laundry owners and the business agent of the union on September 2 and briefs were filed by both sides.

As to the union contract, the testimony disclosed the view of the laundry owners that the union contract was practically void even during its nominal term, because

¹ Section 3 provides that a wage-scale agreement shall be entered into between the company and shop committees, the organization of which is provided for in section 1 of the award.

the union did not supply the laundries with necessary help and because the union knew that all the laundries in Little Rock were using nonunion labor in order to get sufficient help to conduct their business. The union agent, however, correctly pointed out that that was the employers' privilege under the contract, but with the proviso that those workers should join the union in 30 days or be discharged; the employers intimidated by questions put to the business agent of the union that the majority of the employees had never joined the union and did not desire to do so because they did not expect their positions to be permanent, and did not care to give up that amount of money and that percentage of their wages each month as dues.

Notwithstanding these views on the part of the owners, it is clear that they were under contract with the union until May 1, 1918, even though its terms were not strictly observed by the laundries or enforced by the union because of the exigencies of the labor situation. It is a closed-shop contract, and under the principles governing this board, "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."

As to minimum wage.—The chief stress with respect to wages in this case was laid upon the wages paid to the women.

It appears that the State of Arkansas has a minimum wage law for women fixing \$6 per week for the first six months and \$7.50 per week thereafter, but this law was passed a number of years ago under normal conditions and therefore can not be taken as a fair standard under the war conditions now existing. The same law fixes nine hours as the maximum per day and six days per week.

The commissioner of labor stated that, in his judgment, the cost of living in Little Rock had increased about 40 per cent since the beginning of the war. Examiner Herkner in her digest summarized the budget of one woman worker (from that woman's testimony) at \$8.60 per week, and in view of the abnormally low rent included in that instance it may safely be considered the absolute minimum in evidence in this case. Another case is mentioned at \$9 per week; it is clear that these budgets include only the absolute necessities of life.

The work in laundries is of a peculiarly unpleasant kind and inevitably entails exposure to considerable heat and discomfort; it should be reasonably well paid for, even though it is true that because of its character the workers are of the uneducated or poorly educated class who could not easily procure other and more attractive jobs.

About 65 per cent of the women workers are colored, and it is in evidence that the colored women are paid from 50 cents to \$2 per week less than the white women, although the colored women do the heaviest and most laborious work, requiring the same or greater skill than the work done by the white women. One of the laundry owners admitted frankly that he did not think they should discriminate. The pay of the drivers is based upon a proportion or percentage of the value (which is assumed to mean the selling price) of the laundry work brought in. Their compensation, therefore, has already been automatically increased by the advance in laundry prices, and will be still further increased if laundry prices are again raised.

Sanitary conditions.—As to this part of the complaint, the testimony is not very conclusive, but was, on the whole, very vague and general. It does not seem to the section that that is a feature that can be dealt with by the board in any specific way but should be left to the police power (the health authorities) of the city and State. It is stated in the laundry owners' brief that "all laundries in Little Rock are regularly inspected by the United States Public Health Service, as well as by the local city and State health officers, and all have been acceptable from a sanitary standpoint and pronounced satisfactory." The State labor commissioner said, in his testimony, "On the whole, I would say that the sanitary conditions are not very good," but one place was characterized by him as a model. A woman witness for

the employees testified as to another of the laundries, that according to her judgment "the sanitary condition was very nice."

The examiner to be appointed in this case (preferably a woman) should be instructed by the secretary to be very reasonable in her demands, considering the special circumstances surrounding these particular industries, and if then her suggestions are not complied with as to sanitary conditions to call the attention of the health authorities to the same.

The laundries testified, and their brief contends, that if a minimum greater than \$10 per week is awarded by the board it will be necessary for them to increase their laundry prices, which have already been increased twice to the extent of a total of 25 per cent to 30 per cent, and they expressed fear that they will lose patronage, because there was great dissatisfaction with the previous advance and some threats were made by some of their patrons that if any further advances were made in the laundry prices they would ship their laundry out of town. It is fair to assume, however, that if it should really be necessary for the laundries to further increase their prices in order that they may pay the wages ordered by this board and still have a fair return on their investment, the good people of Little Rock will patriotically recognize the propriety of such increase and continue to patronize their home industries.

Your section recommends the following for adoption as the award of the board in this case:

AWARD.

1. *Union contract.*—The principle that "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" was included in the proclamation of the President of the United States establishing this board. Therefore, it is ordered that the form of agreement existing between the union and the laundry owners during the period May 1, 1917, to May 1, 1918 (Exhibit 6), shall be the form of agreement to be entered into by the parties to this controversy except as they may mutually agree to modify the same.

2. *Minimum wage.*—The minimum rates of pay to be set forth in said new contract shall be those shown in said Exhibit 6,¹ plus \$3.50 per week for all workers, except—

(a) Drivers, whose pay is a proportion or percentage of the value of the work brought in by them; for these drivers the wages shall be determined as stated in said Exhibit 6.²

(b) Apprenticeship rates shall be \$2 per week less than the minimum scale of wages provided by this award for experienced workers in each class; and the term of apprenticeship shall be 30 days.

3. *Period of award.*—Said new contract shall be in effect from September 1, 1918, and shall continue during the war: *Provided, however,* That on the 1st day of March, 1919, and at the end of each six months' period thereafter, should conditions mate-

¹ Paragraph 7 of Exhibit 6 provides the following minimum rates of wages for workers in each specified occupation:

Mangle hand and shaker, body ironer, cuff presser, bosom presser, shirt-machine operator, shirt finisher, neckband ironer, sleeve-machine operator, seamstress, hand ironer, collar ironer, assistant marker, assistant assorter, starcher, assistant linen checker and marker.....	\$7.50
Porter.....	9.00
Wringer man.....	10.00
Linen washer, linen checker and marker.....	12.00
Shirt washer.....	15.00
Head marker, head assorter, steam engineer.....	18.00
Electric engineer.....	21.00

² Exhibit 6 contains the following provision as to drivers: "All drivers' salaries shall be based on \$100 worth of work brought in per week (contract work not included), as follows: For \$60 worth of work, \$15; for \$70 worth of work, \$15.50; for \$80 worth of work, \$16; for \$90 worth of work, \$17; for \$100 worth of work, \$18; and all work brought in over \$100 in any one week shall receive 18 per cent."

rially change, making a readjustment by this board equitable, application may be made to the board by either party.

Back pay accrued under this award from September 1, 1918, shall be paid on or before December 31, 1918.

4. *Discrimination.*—Women workers shall receive equal pay with men for equal work. Colored women shall receive equal pay with white women for equal work.

5. *Sanitary conditions.*—Safe and proper sanitary conditions should be established and maintained and reasonable conveniences for the workers should be provided where they do not now exist.

6. *Interpretation of award.*—For the purpose of securing the proper interpretation of this award the secretary of the National War Labor Board shall appoint an examiner, who shall hear any differences arising between the parties in respect to the award and promptly render a decision, from which an appeal may be taken by either party to the section making this award.

One of the most recent awards by the National War Labor Board, affecting wages of women, is that of *Employees v. St. Louis Coffin Co.*, issued under date of November 19 and containing as paragraphs 6 and 7 the following provisions:

Where women are employed on work usually performed by men, they will be allowed equal pay for equal work and must not be allotted tasks disproportionate to their strength. The request of the women for minimum rates of pay are granted, as follows: First three months' service, 21 cents per hour; next six months' service, 26 cents per hour; after nine months' service, 32 cents per hour.

Provisions for the health, comfort, and working efficiency of men and women employees shall be made in accordance with standards agreed upon in conference between the management and the shop committees. In case of disagreement, appeal should be made to the city or State factory inspector for decision.

NEW BASIS FOR FIXING MINIMUM WAGES.

Although not announced as one of its principles, the board, in fixing minimum wages for women in the cases noted, has based its action on the matter of sex, and has recognized the old standard which requires that women should be paid less than men on work not usually performed by men. Accordingly, the minimum wage fixed has in each case been less than that established for male workers. However, in the award made by the board on November 21 in the case of *Employees v. Corn Products Refining Co.* (Docket No. 130), a definite basis much fairer to women workers has been set up by the board. Examiners of the board, after study, divided the work of the plant into "services," placing the same kind of work in any particular part of the plant in the same service. Within each service grades were established, based on the degree of difficulty of the work and importance of responsibility required by each particular job, beginning with the simplest (grade 1) and scaling up to those requiring a high degree of mechanical ability (grade 4). A minimum wage of 35 cents and 45 cents per hour, depending upon the service, was established for work in the first grade, which includes positions that "require performance of a routine task not incompatible with the immature strength and endurance of a boy or girl of legal working age." In this grade many boys and girls and women are employed. If a woman can show that her job requires adult judgment or endur-

ance she is entitled to ask for a wage based on the adult minimum enjoyed by men, instead of on the boy and girl minimum of grade 1. The pay, in other words, is based on the duties and responsibilities of the position. Under this plan all workers, male and female, are placed on the same footing, depending upon their ability to perform certain processes, and no classification is made on account of sex. This policy will materially improve the position of women workers and will give them the benefit of a minimum wage somewhat larger than they probably would otherwise receive. This case is further noted on pages 31 and 32 of this issue of the MONTHLY LABOR REVIEW.

BOARD'S POSITION ON STATUS OF WOMEN WHO HAVE REPLACED MEN.¹

As a result of the war emergency, a large number of women have been employed in industry to replace men who have entered the military and naval services. Following the signing of the armistice on November 11 men have become available for work now being done by women, and the question has arisen whether these women should be allowed to continue in their employment or should be required to vacate their positions in favor of the men. The matter became quite acute in Cleveland, where the male employees of the street railway company demanded that the women be discharged, and went so far as to call a strike to enforce their demand. The question was presented to the National War Labor Board by the mayor of Cleveland, who stated that men were becoming immediately available, by virtue of the reduction in the forces of industry in the city and the return of men from the camps, and the board, on December 3, made the following recommendation to become effective on that date:

We recommend that the Cleveland Street Railway Co. employ no more women for this service and that within the next 30 days they shall replace the present force of women by competent men; that during the 30 days no women shall be discharged except for cause, but in the event it is found necessary to replace the women by men before that date the women shall be paid full wages for the balance of the month.

MINIMUM WAGE LAWS OF MASSACHUSETTS AND WASHINGTON HELD CONSTITUTIONAL.

Some account was given in the MONTHLY REVIEW for March, 1918 (pp. 144, 145), of the attitude of the courts toward minimum wage laws. Such laws now exist in 12 States, besides the District of Columbia for which a law is in effect by act of Congress, approved September 19, 1918.² The article in the March REVIEW was an

¹ Cf. article on strike against employment of women as street-car conductors in Cleveland, on pages 224 to 230 of this issue of the MONTHLY LABOR REVIEW.

² SEE MONTHLY LABOR REVIEW, October, 1918 (pp. 171-181).

account of the decision of the Supreme Court of Minnesota sustaining the minimum wage law of that State. Attention was called to the fact that the State courts of Arkansas and Oregon had taken similar action with reference to their laws. Since the date of that issue of the REVIEW, the Supreme Court of Washington (*Larsen v. Rice* (Apr. 3, 1918) 171 Pac. 1037) and the Supreme Court of Massachusetts (*Holcombe v. Creamer* (Sept. 23, 1918) 120 N. E. 354), have taken similar action.

The Washington case involved the question of the right of an employee receiving less than the minimum wage fixed by the State welfare commission to recover the difference between the wage received and this minimum wage. The employer contested the claim, challenging the constitutionality of the law. The judge who delivered the opinion in this case disposed of the question of constitutionality by a reference to the argument and conclusions of the Supreme Court of Oregon, approving them "as sound and conclusive, and we are content to rest our judgment on the authority of the cases as there determined."

Aside from the question of constitutionality there was an interesting point involved in that the employee had agreed to a compromise settlement with her employer, but at the trial in the lower court she had taken the position that this agreement was not binding, and asked for a settlement according to the terms of the law. The court sustained this plea and rendered a judgment for the balance, and on appeal this action was affirmed by the Supreme Court of the State. It was said that compromises are as a rule favored by the law as tending to prevent strife, but in the present case the matter was not one "wholly of private concern." The State had declared through its agents that a certain minimum wage was necessary to maintain a decent standard of living, so that the question had a public interest; and the State was concerned to see that this standard wage was actually paid, not only for the benefit of the wage earner, but also as a protection to the State.

The four laws sustained by the decisions already noted, those of Arkansas, Minnesota, Oregon, and Washington, make the payment of the fixed wage compulsory, subjecting the employer to penalties on his failure to comply. The law of Massachusetts differs in that the commission is authorized to make investigations and publish standards, but can not by any legal process compel the payment of the rate fixed. However it may appeal to public opinion by the publication in the newspapers of the names of such employers as refuse or neglect to pay as much as the minimum wage fixed. In the case under review the dispute arose as to the power of the minimum wage

commission to compel employers to give evidence before it as to the wages paid by them to their female employees. A wage rate had been fixed for laundries according to the methods prescribed by the act, and no contention had been raised as to its propriety; but when the commission undertook to discover what wages were paid by the defendant employer the information was refused on the ground that the commission had no right to interfere with the liberty of contract guaranteed to the employer by the constitution of the State.

In discussing this question the court enumerated a large number of acts of legislation, interfering with the liberty of contract on the ground of the public interest, to promote health, order, and morals in the interests of the common welfare. It was said that although these decisions would not afford a foundation for a compulsory minimum wage law, they "rest at bottom on the proposition that the public welfare in respect to health, morals, and safety bears so close a relation to the subjects dealt with in the several statutes as to justify legislative regulation."

Assuming as the fundamental reason for the law a belief that women and minors had been constrained by necessity to work for wages less than sufficient to support them in healthful surroundings, the conclusion was reached that the legislature was within its powers in deciding to establish a standard by the methods adopted in the statute under consideration. Recognizing the limits to the right of the public to inquire into private affairs, and to practice a measure of coercion to secure the adoption of the principles involved in the law, the court pointed out that the present statute does not impair the liberty of contract, since employers and employees are left free to agree to pay and to receive any wage whatever, whether above or below the rate fixed by the commission. As to the investigation into the amounts actually paid, and the publication of names where a lower rate was paid, it was said that "there is no undue invasion of the right of privacy," nor do the principles on which boycotts and black lists are held unlawful apply to such official publications as are authorized by this statute. It was further held that there is no unconstitutional delegation of legislative power to the board or commission; and that inasmuch as the employer is not by the act subjected to any penalties for failing to pay the standard wage, calling upon him to disclose the wages paid is not compelling him to furnish evidence against himself, or subjecting him to punishment without proper notice or trial by jury.

What the decision of the court might be if the rate established by the commission was compulsory, the court declined to consider. The court also regarded it as superfluous to "prophecy whether such an act will be held by the United States Supreme Court to be contrary

to the rights and liberties guaranteed by the fourteenth amendment to the United States Constitution." Limiting its consideration to the present act, the court sustained the act in its entirety, so far as any points in the case in hand were involved.

NEW MINIMUM WAGE FOR MINORS IN THE STATE OF WASHINGTON.

The November issue of the MONTHLY LABOR REVIEW contains a statement of the minimum wage orders that have been issued by the industrial welfare commission of the State of Washington down to and including September 10, 1918, when the order was issued fixing \$13.20 as the lowest weekly wage at which females over the age of 18 years may be employed "in any occupation, trade, or industry throughout the State during the period of the war." This is one of the most liberal minimum wage provisions in existence. Closely following this order the commission (on Sept. 19, 1918) entered a new order applicable to minors, making similar liberal provisions for those under the age of 18 years. This order raises the minimum wage from \$6 per week¹ to \$9 and provides that the minimum wage shall be increased "by \$1 per week after every six months of service, or until the minimum wage of \$13.20 per week is paid." The following is the text of the order:

To whom it may concern:

Pursuant to the authority vested in it by chapter 174, session laws of Washington for 1913, the industrial welfare commission, after due investigation of wages and conditions of labor of minors employed in the industries hereinafter mentioned, and due determination of wages and conditions of labor suitable for such minors, hereby orders:

(1) (a) That the word "person" is used in this order to include corporations, co-partnerships, and associations as well as individuals.

(b) That the term "welfare" shall mean and include reasonable comfort, reasonable physical well-being, decency, and moral well-being.

(c) Under the minimum wage act a minor is a person of either sex under the age of 18 years.

(2) That no person shall employ any minor in, or in connection with, any mercantile, manufacturing, printing, laundering, or dye works establishment, sign painting, machine or repair shop, or parcel-delivery service, at a weekly wage rate of less than \$9 for minors under 18 years of age; nor shall such minor be employed or permitted to work in any such industry more than eight hours in any day, or more than six days in any week, or after the hour of 7 p. m. or before the hour of 6 a. m.: *Provided, however,* If after investigation the conditions are found not to be detrimental to the welfare of said minors, permits may be issued by the industrial welfare commission authorizing the employment of minors over 16 years of age to a later hour. (See par. (7) below.)

(3) That no person shall employ any minor in, or in connection with, any telephone or telegraph establishment, at a weekly wage rate of less than \$9 for minors under 18

¹ See MONTHLY LABOR REVIEW for December, 1917 (pp. 112, 113), for provisions of the minimum wage order which this order supersedes.

years of age: *Provided*, That this order shall not apply to messengers in rural communities and cities of less than 3,000 population, who are not continuously employed and who are paid by piece rate for their services; nor shall any minor be employed in such occupation before 6 a. m. or after 10 p. m.: *And it is further provided*, That if, after investigation by the commission of any particular establishment, conditions are found not to be detrimental to the welfare of minors, permits may be issued by the commission to minors over 16 years of age authorizing night employment. (See par. (7) below.)

(4) That no person shall employ any minor in the occupation of stenographer, bookkeeper, typist, billing clerk, filing clerk, cashier, checker, invoicer, comptometer operator, or any clerical office work whatsoever, including assistants and helpers in doctors' and dentists' offices, at a weekly wage rate of less than \$9 for minors under 18 years of age. (See par. (7) below.)

(5) That no person shall employ any minor in any hotel, lodging house, restaurant, or lunch room occupation at a weekly wage rate of less than \$9 for minors under 18 years of age: *Provided*, That where lodging is furnished by the employer to any minor employed in such occupation as part payment of wages, not more than \$2 per week may be deducted therefor from the weekly minimum wage of such employee, and if a room be furnished for such lodging it must be properly heated and ventilated and of size and condition conforming to the general standard of rooms in the locality which are rented for the amount thus deducted from the wages: *And it is further provided*, That where board or meals are furnished by the employer to such minor employee as part payment of wages, not more than \$4.50 per week may be deducted from the weekly minimum wage of such employee for a full week's board of twenty-one meals, or a proportionate amount for less than a week's board.

(6) That no person shall employ any minor under the age of 18 years in any occupation, trade, or industry not mentioned in any of the above paragraphs at a weekly wage rate of less than \$9, nor shall any minor be employed more than eight hours in any 1 day.

(7) That no person shall employ any minor under 18 years of age in any occupation whatsoever without increasing the weekly wage of such minor by \$1 per week after every six months of service, or until the minimum wage of \$13.20 per week is paid.

(8) That no person shall employ any female under the age of 18 years as "shaker" in a laundry; nor as clerk in selling cigars or tobacco; nor as messenger or delivery girl in outdoor messenger or delivery service; nor in certain phases of railroading, as section work; nor certain work in shipbuilding plants; nor certain work in lumber and in shingle mills; nor certain work in hotels, as "bell hops;" nor certain work in metal-working plants, as with molten metals; nor in any work underground; nor in any work in shooting galleries, penny arcades, and the like; nor shall any person employ any minor on a shift over six hours without a rest period of 15 minutes; nor shall any person employ any minor less than full time without posting in advance, not later than noon of the preceding day, the schedule of hours to be observed; nor shall any minor boy under 16 years of age be employed in any bowling alley; such occupations being hereby declared injurious to the welfare of minors.

(9) That this order shall become effective 60 days from the date hereof, to wit, on November 20, 1918, and shall supersede the minimum wage orders for minors dated September 14, 1917, and effective November 14, 1917.

Dated at Olympia, Wash., this September 19, 1918.

PRINCIPLE OF MINIMUM WAGE INDORSED BY ASSOCIATED MERCHANTS AND MANUFACTURERS OF NEW YORK STATE.

The Associated Merchants and Manufacturers of New York State, at a meeting of executives held at Syracuse on November 30, 1918, indorsed the principle of a minimum wage and the creation of a State minimum wage commission, in the following resolution:

Resolved, That the matter of minimum wage and minimum wage commission be and hereby is referred to the legislative committee for definite decision upon the questions involved. They, however, to take into consideration the sense of the Associated Merchants and Manufacturers of New York State in convention assembled this day which is hereby declared to be as follows:

- (1) We are in favor of the principle of an adequate wage for women and minors.
- (2) We favor the creation of a State minimum wage commission which, however, shall be competent and properly representative of industry, labor, and the public.
- (3) That we especially favor the enactment of a Federal minimum wage commission law which, upon its enactment, shall supersede existing State law.

We recommend to the legislative committee that it invite suggestion from individual members of the association interested covering their views as to particular features of the proposed legislation.

NEW MINIMUM WAGE SCALES FIXED BY MANITOBA (CANADA) MINIMUM WAGE BOARD.

Minimum wage scales affecting 12 industries employing approximately 400 women have recently been fixed by the Manitoba (Canada) Minimum Wage Board, according to advices received through the State Department from the United States consul general at Winnipeg, under date of November 23, 1918. The industries included are: Glove making, automobile top, casket, leather goods, tent and awning, paint, rag, broom, seed packing, bag, bedding, and cigar factories. It appears from the consul general's report that in each case the board has made it compulsory that employees shall be given a half holiday on Saturdays, and that it has fixed the minimum wage for skilled or semiskilled workers in each of the industries noted at \$12 a week, except the cigar industry in which case satisfactory evidence was submitted showing that women in that district are the highest paid type of woman workers, and that it takes three years for a woman to learn the business thoroughly. The following are the respective schedules decided upon, together with regulations relating to working hours and employment of minors and adult learners, as reported by the consul general:

Glove industry.—Maximum day, 9 hours; maximum week, 50 hours; compulsory half holiday Saturdays. Adults, \$12 a week. Learners' 18 months' period, first six months, \$9; second, \$10; third, \$11. Minors, 15 years, \$7; 16 years, \$8; 17 years, \$8.75; and \$1 a week increase every six months until adult minimum is reached. Not more than 25 per cent of employees in any factory shall be learners or minors.

Auto top, casket, leather goods, tent and awnings, paint, rag, broom, and seed packing industries.—Same schedule of hours and wages applies as in glove industry, with following special regulations: No minor shall be employed in any rag factory. The clause allowing 25 per cent of employees to be minors shall not apply where less than eight females are employed.

Bag factories.—Maximum day, 9 hours; 49-hour week. Compulsory half holiday Saturdays. Employees in this industry are divided into skilled and unskilled workers' classes. Skilled class includes press feeders and machine operators; unskilled includes all others. Minimum wage, skilled, \$12; unskilled, \$11 per week. Six months' learning period allowed for adults, first three months, \$11 a week; second, \$11.50. Unskilled, learning period six months. First three months, \$10 a week; second, \$10.50. Minors, 15 years, \$8; 16 years, \$9; 17 years, \$9.75; and \$1 a week increase every six months until adult minimum is reached. Not more than 25 per cent minors or learners allowed in any factory.

Bedding factories.—Maximum day, 9 hours; 50-hour week. Compulsory half holiday Saturdays. Adults minimum, \$12. Learning period, six months. First three months, \$9; second, \$10. Minors shall be classed as learners.

Cigar factories.—Nine-hour day; 50-hour week. Compulsory half holiday Saturdays. No minimum for skilled workers, including cigar makers, bunchers, rollers, and packers. Unskilled schedule: Adult minimum, \$10 a week. Learning period, three months, at \$8. Minors shall be classed as learners.

WOMEN IN INDUSTRY.

FEDERAL STANDARDS FOR THE EMPLOYMENT OF WOMEN IN INDUSTRY.

The Woman in Industry Service of the Department of Labor has prepared a statement of the standards to govern the employment of women in industry which have been adopted by the War Labor Policies Board. The following is the statement in full:

In peace or in war, women's work is essential to the Nation. During the war the experience of all countries has shown that women were ready and able to take the places of men withdrawn for military service. So important did their work become that in Great Britain it was actually the War Department which declared that "efforts must be devoted to amplify and extend the scope of usefulness by which alone our country can hope to emerge victorious from a struggle without parallel in her long and glorious history."

The experience to which the war has drawn public attention was true before the war and will be equally true when peace is restored. Before the war the number of women gainfully employed increased in the decade before 1910 from five to eight million, of whom 2,500,000 were in manufacturing, trade, transportation, or public service. Since then the indications are that in numbers and proportions women have become increasingly important in industry.

The greater necessity for control of the standards of women's employment is due to the fact that women have been in a weaker position economically than men. Reconstruction will give an opportunity for a new upbuilding of safeguards to conserve alike the industrial efficiency and the health of women, and to make it impossible for selfish interests to exploit them as unwilling competitors in lowering standards of wages, hours, working conditions, and industrial relations which are for the best interests of the workers, the industries, and the citizenship of the country.

During the war, by vote of the War Labor Policies Board, all contracts of the Federal departments have contained a clause requiring full compliance with State labor laws,¹ and in each State an official of the State labor department has been deputized by the head of the contracting departments of the Federal Government to cooperate with Federal agencies in enforcing these provisions of the contract. This affords a basis and a precedent for continued relations between State and Federal agencies in the upbuilding of standards for women's labor. As the number of contracts grows fewer with the coming of peace, the responsibility of the States increases. But the recognition of the national and international importance of standards of labor conditions will still be paramount since in peace, no less than in war, the Nation will depend for its prosperity upon the productive efficiency of its workers. No other foundation for commercial success will be so sure as the conservation of those practices in industry which make for the free and effective cooperation of the workers. Protection of the health of woman workers is vital as an economic as well as a social measure of reconstruction.

Therefore at this time, in recognition of the national importance of women's work and its conditions, the Federal Government calls upon the industries of the country

¹ See MONTHLY LABOR REVIEW for November, 1918, p. 39.

to cooperate with State and Federal agencies in maintaining the standards herein set forth as a vital part of the reconstruction program of the Nation. These standards have been adopted by the War Labor Policies Board.

STANDARDS RECOMMENDED FOR THE EMPLOYMENT OF WOMEN.

I. HOURS OF LABOR.

1. *Daily hours.*—No woman shall be employed or permitted to work more than 8 hours in any one day or 48 hours in any one week. The time when the work of women employees shall begin and end and the time allowed for meals shall be posted in a conspicuous place in each work room and a record shall be kept of the overtime of each woman worker.

2. *Half holiday on Saturday.*—Observance of the half holiday should be the custom.

3. *One day of rest in seven.*—Every woman worker shall have one day of rest in every seven days.

4. *Time for meals.*—At least three-quarters of an hour shall be allowed for a meal.

5. *Rest periods.*—A rest period of 10 minutes should be allowed in the middle of each working period without thereby increasing the length of the working day.

6. *Night work.*—No woman shall be employed between the hours of 10 p. m. and 6 a. m.

II. WAGES.

1. *Equality with men's wages.*—Women doing the same work as men shall receive the same wages with such proportionate increases as the men are receiving in the same industry. Slight changes made in the process or in the arrangement of work should not be regarded as justifying a lower wage for a woman than for a man unless statistics of production show that the output for the job in question is less when women are employed than when men are employed. If a difference in output is demonstrated the difference in the wage rate should be based upon the difference in production for the job as a whole and not determined arbitrarily.

2. *The basis of determination of wages.*—Wages should be established on the basis of occupation and not on the basis of sex. The minimum wage rate should cover the cost of living for dependents and not merely for the individual.

III. WORKING CONDITIONS.

1. *Comfort and sanitation.*—State labor laws and industrial codes should be consulted with reference to provisions for comfort and sanitation. Washing facilities, with hot and cold water, soap and individual towels, should be provided in sufficient number and in accessible locations to make washing before meals and at the close of the workday convenient.

Toilets should be separate for men and women, clean and accessible. Their numbers should have a standard ratio to the number of workers employed. Workroom floors should be kept clean. Dressing rooms should be provided adjacent to washing facilities, making possible change of clothing outside the workrooms. Rest rooms should be provided. Lighting should be arranged that direct rays do not shine into the workers' eyes. Ventilation should be adequate and heat sufficient. Drinking water should be cool and accessible with individual drinking cups or bubble fountain provided. Provision should be made for the workers to secure a hot and nourishing meal eaten outside the workroom, and if no lunch rooms are accessible near the plant a lunch room should be maintained in the establishment.

2. *Posture at work.*—Continuous standing and continuous sitting are both injurious. A seat should be provided for every woman employed and its use encouraged. It is possible and desirable to adjust the height of the chairs in relation to the height of machines or work tables, so that the worker may with equal convenience and effi-

ciency stand or sit at her work. The seats should have backs. If the chair is high, a foot rest should be provided.

3. *Safety*.—Risks from machinery, danger from fire and exposure to dust, fumes or other occupational hazards should be scrupulously guarded against by observance of standards in State and Federal codes. First-aid equipment should be provided. Fire drills and other forms of education of the workers in the observance of safety regulations should be instituted.

4. *Selection of occupations for women*.—In determining what occupations are suitable and safe for women, attention should be centered especially on the following conditions which would render the employment of women undesirable if changes are not made:

- A. Constant standing or other postures causing physical strain.
- B. Repeated lifting of weights of 25 pounds or over or other abnormally fatiguing motions.
- C. Operation of mechanical devices requiring undue strength.
- D. Exposure to excessive heat—that is, over 80 degrees—or excessive cold—that is, under 50 degrees.
- E. Exposure to dust, fumes, or other occupational poisons without adequate safeguards against disease.

5. *Prohibited occupations*.—Women must not be employed in occupations involving the use of poisons which are proved to be more injurious to women than to men, such as certain processes in the lead industries. Subsequent rulings on the dangerous trades will be issued.

6. *Uniforms*.—Uniforms with caps and comfortable shoes are desirable for health and safety in occupations for which machines are used or in which the processes are dusty.

IV. HOME WORK.

1. No work shall be given out to be done in rooms used for living or sleeping purposes or in rooms directly connected with living or sleeping rooms in any dwelling or tenement.

V. EMPLOYMENT MANAGEMENT.

1. *Hiring, separations and determination of conditions*.—In establishing satisfactory relations between a company and its employees, a personnel department is important charged with responsibility for selection, assignment, transfer or withdrawal of workers, and the establishment of proper working conditions.

2. *Supervision of woman workers*.—Where women are employed, a competent woman should be appointed as employment executive with responsibility for conditions affecting women. Women should also be appointed in supervisory positions in the departments employing women.

3. *Selection of workers*.—The selection of workers best adapted to the required occupations through physical equipment and through experience and other qualifications is as important as the determination of the conditions of the work to be done.

VI. COOPERATION OF WORKERS IN ENFORCEMENT OF STANDARDS.

1. The responsibility should not rest upon the management alone to determine wisely and effectively the conditions which should be established. The genuine cooperation essential to production can be secured only if definite channels of communication between employers and groups of their workers are established. The need of creating methods of joint negotiation between employers and groups of employees is especially great in the light of the critical points of controversy which may arise in a time like the present. Existing channels should be preserved and new ones opened, if required, to provide easier access for discussion between employer and employees.

VII. COOPERATION WITH OFFICIAL AGENCIES.

The United States Government and State and local communities have established agencies to deal with conditions of labor, including standards of working conditions, wages, hours, employment, and training. These should be called upon for assistance, especially in the difficult problems of adjustment in the period of reconstruction following the war.

Inquiries regarding the employment of women may be addressed to the Women in Industry Service, Department of Labor, Washington, D. C., and these will be dealt with directly or referred to the official Federal or State agency best equipped to give the assistance needed in each instance.

ATTITUDE OF CERTAIN STATE FEDERATIONS OF LABOR TOWARD WOMEN-IN-INDUSTRY PROBLEMS.

Among the more important reconstruction problems are those concerning women in industry. In this connection it is of interest to summarize the tendencies of some of the declarations and resolutions published in the 1918 proceedings of the annual conventions of 13 State federations of labor, copies of which have recently been received by the United States Bureau of Labor Statistics. The States covered are—Colorado, Idaho, Kansas, Maine, Minnesota, Missouri, Nebraska, New Hampshire, New York, Pennsylvania, Texas, West Virginia, and Wisconsin.

Equal pay for men and women for equal work was urged at seven of the conventions, those of Colorado, Minnesota, Missouri, New Hampshire, New York, Pennsylvania, and Wisconsin. At the Colorado, Idaho, and New York meetings minimum wage measures for women were advocated. A resolution concurred in at the Missouri meeting called for the "adoption of a minimum wage scale in all industries, with absolute equality of the sexes, said wage scale to be ample to guarantee to the workers such necessities and comforts as will assure them decent American standards of living and with due allowance for such contingencies as sickness and old age." It may be noted that Kansas, Minnesota, Nebraska, and Wisconsin already have minimum wage laws. The executive officers of the Minnesota State Federation of Labor were instructed by resolution "to do everything in their power to have the minimum wage rates for women and minor workers raised to conform to the present high cost of living."

The extension of the 8-hour law for women was proposed at the Colorado convention, so that the statute would include all kinds of female employees with possibly the exception of domestic servants in private homes. At the Idaho meeting it was reported that the 8-hour bill for women failed to pass, despite the efforts of the federation's legislative committee. The Minnesota federation's legislative committee had not succeeded in its effort to have set aside the opinion

handed down by the office of the attorney general, which permitted women to work more than 9 hours in roundhouses. A resolution was adopted at the Missouri meeting recommending a compulsory universal maximum 8-hour day applicable to all industry, and another resolution called for an amendment to the women's 9-hour law. The secretary-treasurer of the New Hampshire federation recommended that the legislative committee be instructed to introduce into the 1919 legislature a 48-hour law for women and minors, and the declaration of purposes of the New York Federation of Labor includes an 8-hour day for all workers with Saturday half-holiday and 24 hours' consecutive rest in each calendar week. In the Pennsylvania proceedings is published a resolution to amend the Woman Act of 1913, which amendment would limit the working hours of women to 8. At the Texas convention a plea was made for the enforcement of the law concerning working hours for women.

At more than half of these State conventions, the importance of the organization of women was emphasized. At four of them—Minnesota, Nebraska, Pennsylvania, and Wisconsin—it was recommended that women organizers should be employed. Seven of these annual conferences declared in favor of woman suffrage.

In but few of these conventions was any opposition voiced to woman's going into new fields of industry.

At the New Hampshire meeting it was urged that every effort be made to keep out of industry young mothers with young children.

The special committee on women in industry of the Wisconsin Federation of Labor recommended that the convention "go on record as being opposed to women being employed on men's work as long as there are still enough men to fill their jobs," and that no men be laid off and women put in their places. Below is given, in part, a resolution further illustrating the attitude of this committee on women in industry along similar lines:

Whereas the evolution in industry has caused a number of problems to arise, and

Whereas the employers have taken advantage of the abnormal conditions created by the war to increase the number of working women in industry under the guise of war emergency, at the peril of working conditions, and

Whereas the committee on women in industry of the State Council of Defense went on record favoring an investigation before women are put on jobs formerly held by men; therefore, be it

Resolved, That the incoming executive board be instructed to call this matter to the attention of the proper authorities and attempt to get some action to safeguard the interests of the toilers in the State.

Another resolution of special interest, which was concurred in at the Wisconsin meeting, reads as follows:

Whereas it has come to our notice that female labor is sought and has already been found to be working at the polishing and buffing trade, under no better conditions

than those which have confronted our members for years and at a much lower rate of wages than is paid to our male members; and

Whereas the polishing and buffing trade is known to be injurious to the health, and wishing to protect our future generations; be it therefore

Resolved, That the incoming executive board of the Wisconsin State Federation of Labor introduce a bill in the next State legislature forbidding the employment of women at the polishing and buffing trade.

The fact that all these meetings were held prior to the signing of the armistice, and at a time when an early cessation of hostilities was not generally expected, may account for the silence on the subject of the employment of women on men's work in peace times. A resolution, however, dealing with this subject was reported favorably at the Missouri convention and is given in part below:

Resolved, That preferment in employment be given first to our returned brethren from the armed forces who have been disabled in service; and be it further

Resolved, That arrangements be made for the placement and employment of all disabled soldiers as near as possible in the same place or occupation where they were engaged when they entered the service; and be it further

Resolved, That preferment be given, second, to all other soldiers returning from service, and that the period of employment of women occupying positions formerly filled by men, or doing what is generally recognized as men's work, be made contingent on, or terminate on, the return of said soldiers.

The New York State federation resolution proposed an international conference of organized labor of the Allied nations to readjust economic conditions at the close of hostilities, "including reemployment in peaceful industries of demobilized soldiers and millions of men and women engaged in the production of munitions and supplies for armies in the field."

SUBSTITUTION OF WOMEN FOR MEN IN THE INDUSTRIES OF CLEVELAND.¹

In the early part of 1918 the Cleveland Chamber of Commerce appointed a committee to consider the problem of the substitution of woman for man power in industry. This committee rendered a report which was approved by the directors of the chamber of commerce and which has recently been issued as a pamphlet.

The committee divided the industries of Cleveland into three groups—the metal, the clothing, and the miscellaneous industries. In the second and third women had long formed an important part of the working force; in the metal industries 1900 was given as the earliest date of their employment in the production departments, and only since the beginning of the war had they been employed at all numerously. At the time of the investigation they formed about

¹ A report on the problem of the substitution of woman for man power in industry, made by the committee on industrial welfare of the Cleveland Chamber of Commerce. 1918. 49 pp.

11 per cent of the employees of such industries, the proportion varying in different plants from 3 to 22 per cent. The Cleveland experience differed from that of Great Britain in that it had not been found necessary, when introducing women, to subdivide processes to any great extent. This is, perhaps, explained by the greater subdivision of processes which existed in the United States before the war.

Welfare work, the committee found, played an important part in making the employment of women successful, the kind needed varying with the industry and the type of women employed. The employment and production managers practically agreed upon certain measures as specially helpful. These are summarized as follows:

There should be forewomen in departments where women are employed.

There should be separate rest rooms and toilets for women.

First-aid provisions, where there is danger of accident, are essential.

There should be a restaurant, or at least a lunch counter, with hot coffee, tea, milk, etc.

Other points mentioned on which the managers were not unanimous, but which the majority recommended, were the provision of rest periods, their frequency and duration depending on the nature of the work, and the assignment of workers to machine processes only on medical certification of fitness. The transference of workers on monotonous processes, when possible, was also recommended as a preventive of fatigue.

In general, the women received equal pay with men on piecework; on time work the women received less than men and slightly more than boys. Equal pay presupposes equal work, and to determine this there must be some method of judging the relative efficiency of men and women on the same processes. The production managers were therefore asked to average the relative efficiency of men and women as to production, attendance, tardiness, length of service, and ease of transference from one process to another. The replies, tabulated according to the proportion of managers holding each opinion, showed the following results:

RELATIVE EFFICIENCY OF MEN AND WOMEN IN VARIOUS INDUSTRIES, AS ESTIMATED BY EMPLOYMENT AND PRODUCTION MANAGERS.

Item.	Per cent of cases in which managers hold each specified opinion.		
	Metal industries.	Clothing industries.	Miscellaneous industries.
Production:			
Women more productive than men.....	64	20	38
Women less productive than men.....	0	20	0
Women equal to men.....	24	40	52
Managers in doubt.....	12		
No comparison possible because of different processes.....		20	10
Total.....	100	100	100
Attendance:			
Women more regular than men.....	28	0	10
Women less regular than men.....	24	60	40
Women equal to men.....	48	40	40
Managers in doubt.....			10
Total.....	100	100	100
Tardiness:			
Women more prompt than men.....	43	0	30
Women less prompt than men.....	24	50	30
Women equal to men.....	33	50	40
Total.....	100	100	100
Transference from one process to another:			
Women more easily transferred than men.....	35	10	12
Women less easily transferred than men.....	20	20	38
Women equal to men.....	15	50	12
Managers in doubt.....	30	20	38
Total.....	100	100	100
Length of service:			
Women stay longer period than men.....	(1)	33	23
Women stay shorter period.....	(1)	33	54
Women stay equal length of time.....	(1)	34	23
Total.....	(1)	100	100

¹ In length of service in the metal industries, women's service in the production department has been too short to form any basis of judgment.

It will be noted that the largest proportion of opinions favorable to women is expressed by the managers of industries in which the women are newcomers. A possible explanation of this may be that the women in these newer industries were more carefully selected, and that most of the managers had provided some form of shop training, so that the women might learn the best and quickest way at the outset.

In general the committee found that women came into a plant through friends already employed there; that less numerously they came in response to advertisements; and that a few had been recruited through employment agencies or exchanges. The first method was preferred by the shop management, since "it overcomes many of the shop prejudices and obviates many of the shop difficulties"; but the limitations on the use of this method are apparent. The committee advises some strong central agency for the distribution of woman labor, and felt that the State-city free employment bureau should be the dominating employing agency.

The committee makes a few recommendations concerning the further employment of women. Equal wages are advised when the work is really equal, but certain greater expenses usually involved in the employment of women should be taken into account. Industrial training of women, partly in outside institutions and partly within the shops, is advocated. Work should be assigned to women and to men alike on the basis of their physical fitness for it. A uniform method of computing labor turnover and the use of a centralized employment agency are urged.

An appendix to the report contains the results of an investigation made in February and March, 1918, into the employment of women in the iron and steel industries of Cleveland. At that time the number of women in 54 shops visited was 4,165, an increase of 1,590 since the outbreak of the war. Other appendixes give the standards recommended in the employment of women, extracts from the reports of the British Health of Munition Workers' Committee, and notes on the industrial training and physical capacity of women.

STRIKE AGAINST EMPLOYMENT OF WOMEN AS STREET CAR CONDUCTORS IN CLEVELAND.

During the latter part of August, 1918, the Cleveland Street Railway Co., claiming that it could not secure a sufficient number of men to run its cars, began to employ women as conductors. The men in their employ objected to this move, and the disagreement reached a pitch at which the men voted to suspend work unless the company would submit to impartial investigation the question of whether or not the employment of women was necessary. The company at first refused, but at this juncture the Federal mediator of the Department of Labor intervened, stating that two investigators from the Investigation and Inspection Service were on their way to Cleveland to look into the whole situation. On September 5 the company and the men agreed to submit to these investigators the following questions for arbitration:

First. Shall women conductors be taken from the cars pending an investigation of the main issue between the company and its employees?

Second. Is the Cleveland Street Railway Co. justified in employing women conductors by a shortage of man power?

On September 9 the investigators rendered their decision in regard to the first question, deciding:

That the best interests of local traffic demand the retention of the women in the street car service pending the investigation of the necessity of employing women for service on the street railway lines of Cleveland.

Whatever the final result of the investigation will be the removal of the women now in service, in the best judgment of the investigators, would even more seriously cripple the present inadequate transportation of the vast number of workmen dependent upon the street car service.

Twelve days later, September 21, they gave a decision on the second point, deciding that while there was a scarcity of man power it was not sufficient to justify the employment of women as conductors, and that the women should be discharged by November 1:

It is true that the company will have to lower its standards somewhat, owing to the extraction of the best men from civil life into the military service of the country. * * *

If male applicants will be allowed a remuneration during the 10-day training period, and schools of instruction, which have proved a success with women applicants, will be introduced for men, and the company's employment agent will make a more determined effort to recruit men from the fair labor market in Cleveland, there is no reason why the shortage should not be filled with men.

Later, the Secretary of Labor issued an order deferring the date for the discharge of the women until December 1, on grounds not connected with the correctness of the award. The women protested against their discharge at any date, and brought the matter before the National War Labor Board, which gave them a hearing on November 8. At this hearing a good deal of time was devoted to the question of the sufficiency of labor in Cleveland, but the main question at issue was whether or not the women had a right to have their case reviewed by the National War Labor Board. Disregarding the aspects of the question which related directly to the labor situation and the war necessity for uninterrupted service, the claims of the women were substantially as follows: (1) The agreement of September 5 was illegal and void, because it was really an agreement on the part of the company to submit to arbitration the question whether or not it should keep its contracts with the women, numbering from 150 to 175, whom it had employed. These women had been engaged to work during good behavior, and were to be discharged only for incompetency, insubordination, or other unsatisfactory service. No charge of any such conduct had been made against the women; on the contrary, the company was ready to agree, and did agree through its representative at the hearing, that their service was entirely satisfactory. (2) Again, the women were directly interested in the results of this arbitration agreement, but they had not been consulted in regard to it, had received no notification of the investigation, and had been given no opportunity to present their case before the arbitrators.¹ On the contrary, they "were informed at various times by the union that they were not concerned in the matter, and they were never given a

¹ This was denied by the men, who said that the investigators had visited the various barns and talked with the women, thus giving the women as much of a hearing as the men had. The women denied that the investigators had talked with them. The attorney for the company said he understood the investigators had visited only two stations where women were employed and had interrogated only the matrons there. It was admitted that no hearings had been held and that the women had had no opportunity for presenting their case through representatives.

hearing in the whole proceeding." (3) Moreover, the women claimed that the agreement to arbitrate was a disregard of their right to be employed and to hold their employment as long as their work was satisfactory. In brief, it was an abridgement of their constitutional right to work. (4) Further, they stated that they had appealed to the Secretary of Labor for a rehearing of the matter, but it had not been granted them. They could not protect themselves by bringing suit, after discharge, for damages, because owing to the conditions under which street car service is performed, it would be impossible for them to state a definite time for which they had been engaged or a definite sum which they would have received. They were without protection unless the War Labor Board would take their case under consideration.

The men on their side limited themselves to two main contentions: First, they maintained that the board had no jurisdiction in the case, and second, that it was bound to respect the findings of the Department of Labor as expressed by the investigators in their award of September 21. As to the first point, they claimed that a case could be brought before the board only by the parties to a dispute, or by one of them. The question of the employment of women was a matter between the company and the union. The union had an agreement with the company, which did not permit the employment of women; therefore the women who had been engaged in disregard of this contract had no real standing. Neither the company nor the union had appealed to the board, and therefore the case was not officially before it, and the board had no jurisdiction.

On the question of the closed shop agreement, several queries were raised. When asked if the contract contained any specific prohibition of the right of the company to employ women, the representative of the union read the following section from the agreement:

SEC. 9. All motormen and conductors shall have their respective places on the lines on which they are employed in accordance with their continuous employment in the service of the company. The men longest in continuous service as motormen and conductors upon the line upon which they are employed shall have first choice of runs, and so on down the list until all vacancies are filled.

Nothing else was quoted to show that the agreement had any bearing upon the employment of women, and as to this section, the women claimed that their employment was in no respect a violation of its provisions. They had taken no man's place; they had come in under exactly the same conditions as the men, and had been shown no favors as to wages, hours, or runs. The representatives of the railway company confirmed this statement. The women further testified that the contract between the company and the union provided that every new employee must apply for membership in the

union within 60 days from entering the service, and that they had made this application but that they had been refused.

As to the second point, the men maintained that the decision of the investigators of the Department of Labor closed the case, and that the War Labor Board had no right to go over that decision and reopen it. They and the company had made an agreement in good faith to abide by the findings of these arbitrators. If the decision had gone against the men, they would have accepted it loyally; as it had gone in their favor, they expected to have it accepted loyally.

To some extent, the men urged also that the work of a street car conductor was entirely unsuitable for a woman, but they did not dwell strongly upon this point, resting their case upon the two contentions just mentioned.

As a result of this hearing, the War Labor Board issued an interlocutory decree, retaining the women in their positions until it should have time to hear the case in full and render a decision upon its merits. This left matters in a somewhat doubtful state, as the men maintained that they had a right to call for the enforcement of the decision of the Federal investigators, while the women maintained that the situation was controlled by the decision of the War Labor Board. The attitude of the men became so pronounced that a further appeal was made to the board, and the following order was issued, November 29, 1918:

The joint chairmen of the National War Labor Board direct that a further interlocutory order be issued on the complaint of Laura Prince for herself and others against the Cleveland Street Railway Co. and its employees, members of the Amalgamated Association of Street and Electric Railway Employees of America, requiring the company, the union, and the employees to withhold the discharge of the women now in the employ of the company in platform service, pending a decision by the National War Labor Board upon the merits of the controversy.

The Amalgamated Association of Street and Electric Railway Employees of America, and the employees of the Cleveland Street Railway Co., members of that union, are required to withhold insistence upon the performance of the award already made in this issue between the company and themselves, pending such decision by the National War Labor Board.

On December 2, the union formally demanded of the company that the women in its employ should be discharged. On the refusal of this demand, the men voted to strike, beginning at 5 a. m. December 3. On the morning of the 3d, the men issued the following statement of their position:

On or about August 28 the company began placing women at the different car stations. The officers of the organization immediately arranged for a meeting with the officers of the company to discuss the situation, but were told that it was none of their business who it (the company) employed.

Inasmuch as the agreement between the union and the company, which was made in 1906, makes no provision for employing women and covers only men; and also, we

having kept in touch with the situation, felt that there were still plenty of men to be obtained, entered a protest against the employment of women.

After several days of conferences, the company refusing to accept the proposition offered by the organization that an investigation be made by three representatives, one to be selected by the mayor, one by the organization, and one by the company, to determine whether it was necessary to employ women as conductors, Secretary of Labor Wilson notified Federal Mediator A. L. Faulkner that the Labor Department was sending two representatives of his department to Cleveland to determine whether it was necessary to employ women as conductors.

Mr. Faulkner, acting as special representative of Secretary Wilson, so notified the organization and the company. Mr. Faulkner then met in joint conference with the officers of the organization and the company, and suggested that the two matters in dispute, which were, Shall the women remain on the cars during the investigation, and also determination of the necessity for employing them, be left to the decision of these two representatives.

The company and the organization agreed to do this, and the representatives decided:

First, on September 9, that the women should remain on the cars during their investigation. This our organization lived up to.

Second, on September 21, after a thorough investigation, that it was not necessary to employ women, and ruled that on and after November 1, 1918, there should not be any women employed as conductors on cars of the Cleveland Railway Co.

Then, on or about October 28, Secretary Wilson requested that the application of the order be deferred until December 1, 1918, and the organization very readily complied with his request and without protest, realizing the conditions confronting the Government at that time, and were willing to make sacrifices in order to assist the Government in prosecuting the war to a successful conclusion.

But inasmuch as there has been no deferment of the decision from the Labor Department we expected the company to comply with the decision which in the presence of Mr. Faulkner it had agreed to. But on the contrary, the company continued to employ women as late as last week, and kept them in its employ on December 1, in violation of its agreement and contrary to the order of the Labor Department.

Then on Monday morning, December 2, the officers of the organization, being informed that the women were still operating cars, arranged for a conference with the officers of the company. At this conference the officers of the organization requested that the company live up to the decision of the Labor Department which it had previously agreed to do. This the company absolutely refused to do, and it also refused to comply with the State law and city ordinance requiring cars to be heated after November 1.

After failure to reach an adjustment of the matters in dispute, the officers of the organization decided to make a recommendation to the members at mass meeting in Acme Hall on Monday night, that if the company still insisted on refusing to live up to the decision of the Labor Department, and also refused to heat the cars in compliance with law and city ordinance, that the men refuse to operate cars on Tuesday morning until such time as the company is ready to live up to its agreement with the organization.

The officers of the organization realize the seriousness of a tie-up of the street cars, but inasmuch as the company has been and is still violating the agreements with them, we have no other alternative and feel that the entire responsibility rests with the officers of the company, as we are now, as we have always been in the past, ready and willing to do all in our power to try to mutually agree on all matters.¹

¹Cleveland Plain Dealer, Dec. 3, 1918.

On their part, the company gave out the following statement:

In obedience to the mandatory injunction of the National War Labor Board, which fixed the wage schedule and working conditions for the Cleveland Railway Co., the company will not discharge the women employed.

Last Saturday the War Labor Board informed the company not to discharge women conductors pending a decision by the board on the merits of the controversy, and a part of the injunction read as follows:

"The Amalgamated Association of Street and Electric Railway Employees of America, and the employees of the Cleveland Railway Co. and members of the union are required to withhold insistence upon performance of the award already made in this issue by two investigators of the United States Labor Department, pending a decision by the board. You will govern yourself accordingly."

We will comply as far as we are able with the award of this board, and will maintain service in proportion to the number of employees willing to work.¹

The strike naturally caused immense inconvenience and serious loss, and, in an effort to end it quickly, the War Labor Board was again appealed to. At once it issued the following findings and recommendations:

Whereas, it is recognized by the board that during hostilities the employment of women in the street-railway industry in Cleveland and on the cars was due to the shortage of men withdrawn for military service; and

Whereas, since the armistice has been signed and men are being returned in daily increasing numbers to their usual employments; and

Whereas, the mayor of Cleveland appeared this day before the board and represented the grave situation in the city of Cleveland due to a strike over this question of the employment of women, and stated that men were becoming immediately available by virtue of the reduction in the forces of industry in Cleveland and the return of men from the camps;

Now, therefore, we recommend that the Cleveland Street Railway Co. employ no more women for this service and that within the next 30 days they shall replace the present force of women by competent men; that during the 30 days no women shall be discharged except for cause, but in the event it is found necessary to replace the women by men before that date the women shall be paid full wages for the balance of the month.

This recommendation shall become effective as of December 3, 1918, and the month stated will end on January 3, 1919.

These recommendations, however, were advisory, not mandatory, and the company refused to follow the advice. The situation was complicated by the fact that the men were determined not to recognize the women in any way, nor to permit them to take part in any agreement. The women suggested a joint telegram to the War Labor Board, signed by the company, the union, and the women asking for a mandatory order respecting the employment of women, which all should agree to accept, but the telegram could not be agreed upon. Various unsuccessful efforts were made to bring the parties together, but it was not until the evening of the third day of the strike that a settlement was reached. Then by a vote of 595

¹ Cleveland Plain Dealer, Dec. 3, 1918.

to 583 the men voted that their leaders should sign the following agreement:

It is hereby agreed by and between the undersigned that on and after this date there will be no more women employed as conductors, that the Cleveland Railway Co. will remove and displace the women that are now in its service as rapidly as possible.

It is further agreed and understood that on and after March 1, 1919, no women will be in the employ of the Cleveland Railway Co. as conductors.¹

This was signed by the officers of the union and of the railway company, and by midnight the cars were again in operation, and the strike was over.

¹ Cleveland Plain Dealer, Dec. 6, 1918.

PROPOSED EMPLOYMENT OF WOMEN DURING THE WAR IN THE INDUSTRIES OF NIAGARA FALLS, N. Y.¹

In the summer of 1918, the Employers' Association of Niagara Falls wrote to the Department of Labor asking for the permission of the Federal Government, under its war powers, to introduce women into their plants and to employ them in "shift work"—that is to say, in work involving employment during the night at hours prohibited by the New York State labor law. The request was made on behalf of a few firms, not the entire membership. The reason given was the great difficulty of securing men and the consequent set-back to the production program of the War Department and the Navy through failure to supply sufficient quantities of chemicals, metals and alloys for the war industries. The Niagara plants were manufacturing gases for chemical warfare, picric acid for explosives, wheels for tanks, carborundum products essential in the machine industries, storage batteries, graphite, electrodes, and a variety of chemicals, including chlorine, caustic soda, caustic potash, calcium carbide and other basic materials.

Failure to secure labor for the making of such important products would obviously be serious for the Nation at war and the request, therefore, demanded thorough consideration as a production problem.

On the other hand, it had serious implications for the welfare of woman workers. The industries of Niagara Falls are classed as dangerous trades. The most recent official investigation made in 1912 by the Factory Investigating Commission of New York State had shown, moreover, that the ordinary safeguards already demonstrated to be effective as health measures in the same industries elsewhere had not been established at Niagara Falls. To permit the employment of women by day under these conditions would be to deviate markedly from the standards which have been slowly and laboriously built up for their protection in State labor laws and in the industrial customs of the United States. To permit their employment at night in a State like New York, which has a law prohibiting the work of women in factories between the hours of 10 p. m. and 6 a. m., would be a departure from the policy of the Federal Government, rigidly adhered to throughout the war, to require strict compliance with State labor laws, unless the national need should become so urgent as to convince the Federal authorities that temporary

¹ Report of the Woman in Industry Service of the United States Department of Labor, Bulletin No. 1, November, 1918.

modification of a State law in its application to a particular plant for a specified period was essential to the winning of the war.

It was clear, moreover, even in advance of the investigation of the plants in Niagara that the proposed employment of women at night was a symptom of difficulties in securing labor which, in view of the national importance of production there, demanded more comprehensive action than a decision for or against night work for women. The national emergency demanded that the conditions of employment established for all workers, whether they be men or women, should be such as to insure maximum production. The conditions necessary to insure maximum production are those which result in the minimum of absenteeism and shifting of workers from plant to plant—known as “labor turnover.” Furthermore, it was recognized that the conservation of the health of the workers was essential to the winning of the war. If labor shortage in Niagara plants was due primarily, or even in part, to ill-health and absenteeism traceable to a lack of proper precautions against the risks of the industries, then the employment of women at night would not be the remedy which would result in the production necessary for the Army and the Navy.

The women of America would be ready to respond to the needs of the country for the products of the dangerous trades by taking the places of men withdrawn into military service, but the Federal departments responsible for production could not well afford to have the labor of women wastefully used by introducing them first into industries which were likely to be harmful to them and which would be able to hold longer the available supply of men by scrupulous attention to the conditions affecting health.

COOPERATING AGENCIES.

The request from the employers of Niagara Falls was referred to the Woman in Industry Service of the Department of Labor just established by congressional appropriation. Because of the multiplicity of the problems involved, the Woman in Industry Service decided to associate with it in this work other Federal agencies vitally interested in the industries there, not only because the industries were essential in themselves, but because they illustrated a problem of man-power and the proposed introduction of women in many other industries of the country. To deal with those aspects of the problem which center primarily in conditions affecting the health of the workers the committee on hazardous occupations was formed with a membership representing Federal agencies concerned with women in industry and with the health of the civilian population, the department of labor in the State affected, and the Federal departments having a direct or indirect interest in contracts in the chemical industries. The

members were: Lieut. Col. Harry E. Mock, chairman, Surgeon General's Office; Capt. Austin D. Reiley, secretary, Ordnance Department; Maj. Harold C. Bradley, Chemical Warfare Service; Lieut. Commander Donald Riley, Navy Department; Dr. J. W. Schereschewsky and Dr. A. J. Lanza, United States Public Health Service; Dr. Richard M. Pearce, National Research Council; Mr. Charles E. Oakes, Bureau of Standards; Mr. James M. Lynch, Mr. James L. Gernon, Mr. John H. Vogt, and Miss Nellie Swartz, New York State Industrial Commission; Dr. Royal Meeker and Dr. Alice Hamilton, Bureau of Labor Statistics; Mr. Grant Hamilton, Working Conditions Service; and Miss Mary Anderson and Miss Mary Van Kleeck, Woman in Industry Service, Department of Labor.

A subcommittee was appointed to supervise the field work and this committee met at regular intervals with the field force at Niagara Falls. Expert consultants, including Dr. Alice Hamilton, of the Bureau of Labor Statistics, Prof. C. E. A. Winslow, Dr. David L. Edsall, and Dr. W. Gilman Thompson, of the Public Health Service, and Mr. John E. Vogt, of the New York State department of labor, met with them at Niagara Falls on one or two occasions and inspected typical plants. The field force of the Public Health Service was under the direction of Dr. Paul M. Holmes.

SCOPE OF INVESTIGATION.

The investigators were instructed to center attention, first, upon the detailed analysis of every occupation with a conclusion, in each instance, as to whether a woman could be employed at once, or whether the employment of a woman should be postponed until the shortage of labor was more acute, or whether the occupation was such that a woman should never be employed; second, upon the hygienic and health conditions in each department of each plant, and recommendations for removal of hazards.

Outside the plants inquiry was made into the availability of woman workers in the community, and in this connection and to secure additional information on the other subjects of inquiry men and women in the community were interviewed, including officers of the local trade-unions, and physicians and priests familiar with conditions affecting the workers. Conferences were also held with the Employers' Association, the Chamber of Commerce, and the Rotary Club. The preliminary inquiry was made between August 10 and September 10, and time was then given to put into effect in the largest plants some of the most important recommendations before the final report was prepared and the conclusions set before the people of Niagara Falls.

PURPOSE OF INVESTIGATION.

The whole purpose of the investigation was to secure prompt action to improve conditions in the plants. The inquiry was brief and was not planned to secure new scientific data on the health hazards of the chemical industries which are already well known, but was designed rather to deal with an immediate, practical problem and to secure compliance with recommendations demonstrated to be feasible and effective.

The industries represented in Niagara Falls are as important to the commercial life of the country in time of peace as they have been essential during the war. Improvement of the working conditions there is typical of one of the big tasks of reconstruction which must be resolutely accomplished in many communities. The Federal Government representing the Nation as a whole is as vitally concerned in the conservation of the working forces, as fundamental in the upbuilding of our country after the war, as it was in securing production necessary to the war. The State department of labor, endowed already by legislative action with power to require proper provision for protecting the health of workers in dangerous trades, has a continuous interest in fulfilling its responsibility in the hazardous occupations of the State. Employers will find the establishment of well-recognized standards the surest means of securing and holding a satisfactory labor force. The workers in the community, who are the ones most directly affected, may well seize the opportunity to cooperate actively with State and Federal departments. The task is not one of discovery or investigation, but of continuous supervision of the health of the workers and unremitting application of the precautions and safeguards known to be effective. Niagara Falls has an opportunity now to demonstrate to other communities how much may be accomplished by united effort on the part of State and Federal departments, employers, and workers.

REPORTS.

The Public Health Service has taken charge of the preparation of reports covering health, sanitation, and safety in the plants. The Woman in Industry Service of the United States Department of Labor, in cooperation with the bureau of women in industry of the New York State Industrial Commission, has prepared the following report dealing with the problem of labor supply, and especially the proposed employment of women. This report is submitted at a time when, with the signing of the armistice, the immediate pressure for the introduction of women has passed. The employers in Niagara Falls recognize this situation, and the majority of those not now employing them do not wish to introduce women into their plants. But as the introduction of women in new industries is a problem of

peace as well as of war, it seems profitable to discuss the various factors entering into it, as they are illustrated in the industries of Niagara.

OCCUPATIONS FOR WOMEN.

The 21 plants covered in the investigation manufacture four main groups of products: first, abrasives, or the material of which grinding wheels used in many important machine industries are made; second, chemicals and gases, including liquid chlorine, bleaching powder, hydrochloric acid, sulphur chloride, chlorobenzol, caustic soda, picric acid, formaldehyde, potassium chlorate, sodium bichromate, carbon tetrachloride, sodium and sodium peroxide, tetrachlorethane, and chloroform; third, electrodes and carbon; fourth, metal and alloys, including ferro-alloys, chrome metal, alloys of chrome and tungsten, manganese and its alloys, titanium alloys, and aluminum sheet metal; and fifth, a miscellaneous group, including brass, aluminum castings, storage batteries, spindle wheels, electrical equipment for automobiles, lighting systems, and hand flashlights.

The number of plants in each group and the number of men and women employed are shown in the following table:

NUMBER OF PLANTS AND NUMBER OF MEN AND WOMEN EMPLOYED, BY MAIN GROUPS OF PRODUCTS.

Main product.	Number of plants.	Number employed.		
		Men.	Women.	Total.
Abrasives.....	3	1,734	490	2,224
Chemicals and gases.....	8	2,242	8	2,250
Electrodes and carbon.....	3	1,230	19	1,249
Metal and alloys.....	4	2,667	33	2,700
Miscellaneous.....	3	650	132	782
Total.....	21	8,523	682	9,205

Thus the total number employed in the plants visited was 9,205, of whom 682 were women. The largest group of women, 490, were employed in the abrasive plants. Here they were engaged in a variety of occupations, from the delicate operation of molding and mounting dental wheels and points to the more vigorous task of operating lathes which grind the wheels, throwing off quantities of inorganic dust. The next largest group were in a plant manufacturing storage batteries, but the majority were not in the departments in which the more dangerous compounds of lead were handled. In other plants they were employed in small numbers in such unusual work for women as shoveling coal, pushing wheelbarrows, piling brick, loading freight cars, and even outside painting.

The point of view from which the investigation was undertaken was to be open-minded about the work which women might do and

to map out in a series the operations in all the plants, including even those in which the employment of women was not proposed by the management. Roughly, the occupations could be classified into four groups, the first, including light operations requiring no training; the second, light operations requiring training; the third, operations endangering health when performed without safeguards which are not maintained at present; and the fourth, operations unsuitable for women. The purpose was to establish a plan of procedure rather than to run the risk of permitting women to be introduced first into processes most likely to be injurious to them because in these the shortage of labor would probably first be felt. In the emergency of the war it might become necessary for women to take part in many industries in which hazardous conditions were found, but the aim in the survey of Niagara Falls was to point out the hazards and the possibility of removing them in advance, so that if the employment of women should become necessary the dangers to health would have been reduced to a minimum.

HAZARDS TO HEALTH.

The chief hazards to health in the industries investigated are due to dusts, especially inorganic dusts in the manufacture of abrasives; fumes and gases given off in such processes as the manufacture of nitric acid, chlorine gas, or benzol; and the materials, causing irritation of the skin and mucous membranes, in making caustic bleach, picric acid, and intermediate compounds, and sodium bichromate. Poisoning from lead dust and fumes is the danger in the manufacture of storage batteries. Excessive heat and excessive noises are hazards in some occupations. The men in the bleaching chambers¹ suffer from the irritation of dust from chloride of lime, the overpowering effect of chlorine gas, and the discomfort of an excessively high temperature.

Besides the dangers which characterize these specific trades, general hazards to health which are unfortunately found in many industries, although not inherent in the nature of any of them, were noted, such as the lifting and carrying of heavy weights without mechanical devices, or the lack of adequate illumination, or insufficient ventilation, or neglect of facilities for comfort and sanitation, and fatigue due to long hours of work, and night work for the men workers.

In general, the precautions² necessary are the removal of dust and gases at their source; minimizing the handling of poisonous or irritating substances by introducing automatic processes; screening of

¹ Helmets are used by the bleach workers in one plant. Foreign experience has demonstrated the feasibility of an automatic handling of this process, but only one plant in Niagara has installed such a machine, and it is not used.

² These were thoroughly discussed in the Report of the New York State Factory Investigating Commission for 1913.

furnaces or other sources of extreme heat; screening of lights to prevent glare; the use of mechanical devices to lessen the amount of heavy work; absolute cleanliness of floor and machinery and the use of proper impervious materials for floors or work tables in such industries as the manufacturing of lead products; adequate washing facilities, including also soap, individual towels, hot and cold water, and education in their use; provision for proper work clothes and spectacles, goggles, gloves, or respirators; and, above all, as necessary to insure the other precautions, competent medical supervision and education of the workers in hygiene and safeguards necessary in their trade.

SPECIAL HAZARDS FOR WOMEN.

Certain occupational dangers in these trades affect women more seriously than men. Lead poisoning is one of these. Fortunately, in America few women have been employed in the lead industries, and in Niagara Falls it is only in isolated instances that any women have been exposed to this danger. Nevertheless, as the tendency to introduce women into occupations new to them may still continue it is desirable to point out the dangers in the lead trades.

Expert observers, both in this country and abroad, have held that women are more susceptible than men to the effects of lead. But the most serious danger for women in these occupations is due to the effect of lead on the generative organs. Those who have suffered from lead poisoning are more likely to be sterile or to suffer miscarriages or to bear dead children or to lose their children as infants. Lead poisoning in men has not been known to have any ill effects upon the offspring, but for a woman the poison affects not only herself but her children in the future, and these serious results occur more frequently if she works in the lead industries after her marriage.

The manufacture of storage batteries is a particularly hazardous branch of the lead industries, because of the use of lead oxide in large quantities. The utmost care is necessary to make it reasonably safe for men. The floor should be made of impervious material and kept clean by flushing. Mechanical devices should be installed to minimize the handling of lead and to carry the dust away from the workers. Hot running water, soap, and individual towels should be provided in accessible wash rooms. Bubbling drinking water should be supplied. The worker should be furnished full suits of overalls, caps, and washable gloves in good repair, and these should be laundered by the company at least twice a week. The workers should be required to wash hands and face, rinse their mouths, and take off their overalls before eating lunch and before quitting work, and lunch should never be eaten in the workroom. Each worker should be examined by a physician before being employed and reexamined at regular intervals,

preferably once a week, and those who are anemic, or who show signs of tuberculosis or nephritis should not work in the lead trades. The workers should be instructed as to the precautions necessary for them to take and the importance of care of the teeth, a proper breakfast before going to work, and careful cleanliness of hands and finger nails. They should know how to watch for early symptoms of lead poisoning—digestive disturbances, bad taste in the mouth, loss of appetite, constipation, fatigue disproportionate to their work, loss of sleep, and headache—and the doctor should be consulted as soon as such symptoms arise.

In the manufacture of storage batteries, the most dangerous process is mixing the paste and applying it to the plates, and the employment of women in this work should never be allowed. But in the other processes, also, such as the molding and casting of grids and the assembling of formed plates lead oxide constitutes a danger. Scrupulous cleanliness in the workrooms, abundant ventilation, separation of processes so that the workers in one occupation will not be exposed to the risks of another process, and proper exhaust systems to remove dust and fumes are essential.

In the processes involving exposure to lead in the industries of Niagara Falls these precautions are not strictly observed. Some changes have been made recently. A concrete floor is being laid instead of the wooden floor with lead dust ground into it too deep for removal by any superficial method of cleaning. A mixing machine will be installed which will render unnecessary some of the handling of lead. These are promising beginnings, but they must be followed by much more radical improvements before the employment of women in any of the lead processes should be permitted.

For the most part, the other industrial poisons in plants in Niagara Falls have not been demonstrated to be more harmful to women than to men, except in the sense that the duties of women at home added to the work in a factory render them more liable to illness. Public opinion wisely insists, therefore, that women should not be employed under conditions exposing them to such dangers. Public opinion should go farther and insist that all unnecessary risks should be eliminated for men.

It is in the abrasives industry that the largest group of women in the plants inspected were employed. The inorganic dusts of this industry are demonstrated to have a serious effect in predisposing to tuberculosis and other respiratory diseases. It may be due in part to this industry that Niagara Falls has held a record for a high percentage of tuberculosis among the cities of the State. Here, again, the effects upon men and women are similar. But in the effort to protect women workers New York State has for some years

had a law prohibiting the employment of women in grinding tools on carborundum or emery wheels. This should be held to apply also to the manufacture of carborundum products since the amount of dust is probably greater in their manufacture than in processes of grinding on the completed product.

It is being proved possible to remove this dust in Niagara Falls plants. Blowers are being tested by the management, on recommendation of the committee, which are likely to make this danger to health unnecessary if they are installed throughout the processes and kept in good working order. Until these precautions are taken women should not be employed in the dust-generating processes or in the workrooms where they are carried on, and those now employed should be transferred to other work as rapidly as possible.

In addition to the occupational poisons, of which lead is believed to be the only one injuring women more than men, certain conditions in the processes are more serious for women than for men. The lifting of heavy weights, for instance, may cause strains affecting seriously the capacity of women for child-bearing. Due to differences in the structure of the body continuous standing is considered more harmful for women than for men. Occupations involving unusual stretching or straining may be unduly fatiguing for women, especially as, generally speaking, a woman's reach is less than that of a man, and the muscles of arms and back are not so strong. Strains on vital organs are, therefore, more likely to occur and may be especially serious for married women. Moral hazards such as employment in isolation must also be considered as having a peculiar danger for women.

The amount which a woman of average strength may safely lift has not been scientifically determined. The proper method of lifting may make possible the handling of a larger weight with less injury. New York State forbids women in the core rooms of foundries to lift more than 25 pounds. Shortly after our entrance into the war, the Chief of Ordnance and the Quartermaster General simultaneously issued suggestions to contractors setting forth standards for the employment of women and these declared that no woman should be required to lift repeatedly a weight of more than 25 pounds. This standard, therefore, has official precedent to commend it. In applying it, however, it should be remembered that even 25 pounds may be too great if lifted too frequently, or if the lift requires stooping, or if the payment of piecework creates a strain due to too much speeding up. Moreover, women who are below the average in strength, or who are pregnant, or who have a tendency to cardiac disease should never be permitted to lift even a lesser weight repeatedly.

It should be said here that progress in the invention of mechanical devices is rendering unnecessary much of the heavy labor of industry. In one plant manufacturing shells in another city, the employment of women led to the use of a small pulley device whereby the shell was swung into place on the lathe machine and swung back to the work table. Trucks run by motors are already supplanting hand-wheeling in some of the Niagara plants. Mechanical conveyors make it possible to move material from one part of the workroom to another. These together with elevators and hoists combined with the proper routing of materials through the plant should remove many of the present burdens which are undoubtedly responsible for making common labor scarce.

Having in mind the special hazards to women and the desirability of protecting them against certain dangers which affect men and women alike, but which should not be permitted to women because of the very vital relation between the health of women and the health of the race and because, too, for women the burdens of housekeeping and care of children must be added to the burdens of industry, the Woman in Industry Service has recommended to the people of Niagara Falls that under present conditions these women should not be employed in the following processes:

- A. Shoveling or wheelbarrow work, because of the tendency to lift too heavy weights in such occupations.
- B. Yard work, because of exposure to inclement weather and because so much of the yard work is heavy.
- C. Loading or unloading freight cars.
- D. Occupations involving the lifting of a weight of more than 25 pounds.
- E. Occupations in which women are exposed to risks of poison, which have been proved to be more harmful to women than to men, such as the lead industry.
- F. Occupations in the abrasives industry in which the worker is exposed to dust for which there is no adequate system of removal.

HOURS OF WORK.

The initial reason for a survey of the proposed employment of women in Niagara Falls plants, as already explained, was the wish of certain firms manufacturing war products to employ women at night. With the increasing shortage of labor they foresaw that in processes requiring continuous operation the employment of women on the day shifts would presuppose the possibility of their taking their turn at night with the rotation of shifts. Similar requests had reached Washington from other States and the whole matter was under careful consideration there. It was felt that only an extreme

emergency due to the war could justify the employment of women at night and that then their employment should be permitted only for a temporary period while the emergency lasted. Moreover, from the beginning of the war, the Federal Government was opposed to any relaxation of standards gained in State labor laws. New York State is one of the nine States prohibiting night work of women.

The reason for this insistence upon insuring to women a rest period at night is the experience of the nations of the world with the bad effects of night work. Before the war, by international treaty, 13 nations prohibited it. In our own country successful defense of the constitutionality of the New York statute resulted in bringing together a mass of evidence which may be summed up by saying that neither a man nor a woman is naturally a nocturnal worker. Physiologically speaking, the vitality is lowered at night and this persists even after the habit of night work has been long established. For women there are the added dangers due to loss of sleep by day because of home duties, and to the moral risks of employment at night. For society there are also to be considered the bad effects of night work of women upon the welfare of children, and upon family life. From the point of view of industrial efficiency, night work is not to be desired because output is diminished during the night hours.

Had the war gone on a plan was under consideration in Washington to take night work under Federal control through clauses in contracts forbidding employment of women between 10 p. m. and 6 a. m., unless the plant held a special certificate granted for a temporary period by the Secretary of War or the Secretary of the Navy, with the approval of the Secretary of Labor. With the signing of the armistice, the War Labor Policies Board passed a resolution, declaring that only the emergency created by the war could have justified any consideration of the possibility of permitting night work for women, reaffirming its conviction that women should not be employed at night and recommending the immediate cessation of night work in Government owned plants.

The New York State law on this subject thus has the sanction of the Federal Government based on war experience and the backing of similar legislation in other States and abroad. It is, therefore, impossible for any plants in Niagara Falls to employ women between the hours of 10 p. m. and 6 a. m. Doubtless with the passing of the war emergency none of them contemplates it.

In a number of plants in Niagara Falls the practice of long working periods of 10, 12 or even 13 hours for men continues. It should be pointed out that even during the war the steel industry adopted an 8-hour day, instead of the 12-hour shift so common for many years.

in the steel industry. The drift to-day is toward an 8-hour day as a health measure for the workers and an efficiency measure for the industries. In dangerous trades, involving risks of poisoning, long hours are very serious because they expose the worker just so much longer to poison, while they render him through fatigue more susceptible to its ill effects. In the industries of Niagara, therefore, the 8-hour day must be listed among the safeguards which should be established against occupational diseases.

WAGES.

No investigation of wages paid in Niagara plants was made in this inquiry. In reports on occupational diseases abroad, the greater susceptibility of low-paid workers to disease has been pointed out as pertinent to the whole discussion of safeguards. Low wages mean undernourishment, and crowded living quarters, and these increase the danger of ill health.

In the Niagara Falls housing survey made by the Independence Bureau in November and December, 1917, information from 36 plants on the wages of 12,349 men and 1,029 women showed that 63 of every 100 women earned a weekly rate of \$12 or less. It is not shown how many of these earned more than \$8 or \$9 a week. Of the men, 19 per cent received a rate of \$25 or more a week, while the same proportion received \$18 or less. The majority of the men, 61 per cent, were rated at \$18 to \$25 a week. These are wage rates and not actual earnings.¹

For women, the policy of the Federal Government repeatedly affirmed during the war is that when a woman does the same work as a man she shall receive the same wage. Casual inquiry has shown that some of the plants in Niagara Falls have paid the same rate to women as to men. In others, contrary to the policy recommended by the Government, a lower rate has been adopted for women. On this subject no other recommendation can be made, since data are lacking except to point out the policy deemed necessary by the Government during the war, and to add that the health of the workers in such occupations as those in the chemical industries is more than usually dependent upon the standard of living which their wages enable them to maintain.

THE LABOR SUPPLY.

A brief inquiry into the available supply of women workers not now employed in Niagara Falls indicated that the number probably did not exceed 300 to 350, of whom many were young married women with children. The shortage of housing for women rendered impracticable the drawing in of a larger number from other communities.

¹ Independence Bureau Report of Niagara Falls Housing Survey, December, 1917 (p. 10).

The Independence Bureau in its report to the Niagara Falls Housing Committee had reported that "permanent boarding facilities for women are scarce. The average price of lodging is \$3 or \$4 a week, and board is obtained separately. There are a few rooms with board and lodging supplied together at \$5 or \$6 a week, but the price of decent board is more generally \$8 or \$10 a week."¹ In the housing plans afterwards adopted by the Federal Government no special provision was made for women living alone, so that the industries would necessarily rely upon those who are already living in Niagara or who go there with their families.

In making inquiry as to the number of women workers who might be secured to take men's places, numerous indications were encountered of the fact that it was not merely or even chiefly withdrawal for military service which was crippling Niagara industries, but an abnormal turnover of labor, an aggravation of a condition reported to have existed before the war. It was said that outgoing trains carry away as many workers as incoming trains bring and that the working population of the city changes almost as fast as does the tourist population. Men and women outside the industries, but cognizant of conditions through long residence there and close contact with the workers, pointed out that living and working conditions which workers in Niagara Falls have found particularly hard to endure are low wages, inadequate housing, and transportation, and exposure to industrial poisoning. They were convinced that the failure of manufacturers to grasp the connection between production, good working conditions, and good living conditions had resulted in an acute labor shortage of both men and women. It was to solve all these complicated problems that employers were looking to the introduction of women workers. This would probably not have been the solution during the war. It is not likely to be the solution now. The industries of Niagara Falls face a problem of plant management and community responsibility. Failure to solve it will accentuate present difficulties. Success in solving it would place Niagara Falls in the front rank of industrial communities.

SUMMARY AND RECOMMENDATIONS.

Under present conditions in the industries investigated in Niagara Falls the extension of the employment of women is not desirable. If women are to be employed in the hazardous occupations of the country it should be only under conditions which have been made as safe as possible. This has not been achieved as yet at Niagara Falls. There are plants in Niagara in industries not included in the inspection in which conditions are said to be favorable for the employment

¹ Independence Bureau Report of Niagara Falls Housing Survey, December, 1917 (p. 8).

of women. It is wiser that the comparatively few available women not now employed should find opportunities in these plants instead of in the industries in which serious risks to health would be encountered.

But to advise against the employment of women is not to solve the labor problem of Niagara. Clearly even during the war this was not a problem of the desirability or undesirability of introducing women into work hitherto done by men, or of employing women at night. The great need of the industries at Niagara is to adopt a program to insure better health in the plants and better health in the community.

Dust and fumes from the plants are affecting the homes of the people. Housing problems are acute. This investigation was confined to plant inspections and does not afford a basis, therefore, for recommendations regarding a health program for the community. Even a cursory inquiry shows the need, however, for united effort to make Niagara Falls as attractive a place for workers to live as it has been famous as a resort for travelers.

In the industries the need is to apply in the plants the precautions which are well known in hazardous trades, especially the construction of proper systems of dust and fume removal and the establishment of higher standards of sanitation and hygiene in the interest of preventing occupational diseases. It is very important, also, to make provision for continuous medical supervision of the health of the workers, instruction for them in the dangers of their occupations and the best means of protecting themselves against occupational diseases.

Under article 6, section 99, of the labor law of the State the Industrial Commission of New York State has full power to require adequate medical protection for the workers in dangerous trades. This section reads as follows:

Dangerous trades.—Whenever the industrial board shall find as a result of its investigations that any industry, trade, or occupation, by reason of the nature of the materials used therein or the products thereof, or by reason of the methods or processes or machinery or apparatus employed therein or by reason of any other matter or thing connected with such industry, trade, or occupation, contains such elements of danger to the lives, health, or safety of persons employed therein as to require special regulation for the protection of such persons, said board shall have power to make such special rules and regulations as it may deem necessary to guard against such elements of danger by establishing requirements as to temperature, humidity, the removal of dusts, gases, or fumes, and requiring licenses to be applied for and issued by the commissioner of labor as a condition of carrying on any such industry, trade, or occupation, and requiring medical inspection and supervision of persons employed and applying for employment and by other appropriate means.¹

The combined efforts of Federal, State, and municipal authorities should be utilized to make possible physical examination of workers, advice as to the occupations which they can safely follow, and instruc-

¹ New York State Labor Law and Industrial Code, July 1, 1917 (p. 84).

tion in the methods of guarding against the dangers of occupations and especially to stimulate the management in the plants to achieve in the field of protection of the health of the workers as notable results as they have attained in the scientific progress of the chemical industries in this country.

The first essential is a program by the management to change conditions. Changes now under way give promise of such a program. The statement made in the report of the New York State Factory Investigating Commission about the chemical industries in the United States as a whole should be no longer true in Niagara.

In no other industry are perils to the body and dangers to the health of the workers so many, so insidious, and so deadly. The workers come in direct, close, and daily contact with lead, arsenic, phosphorus, antimony, mercury, chromium compounds, and other powerful poisons. Injurious gases and harmful fumes are evolved in hundreds of its various processes. Irritating dusts, excessively high temperatures, burning and spurting liquids, dangerous explosives, and many other open and hidden, seen and unseen dangers lurk at almost every step.

And yet, here in the United States, there is no industry in which there is less protection to the health and interests of the workers, or where a standard for ever-increasing production and large profits is maintained at such a sacrifice of human life.¹

Attention must be centered first upon the engineering problem of applying in the plants the precautions and safeguards which are well known, especially to construct proper systems of dust removal and to establish the usual standards of safety and facilities for comfort.

It is important also to develop progressive plans for employment management in the plants, with a spirit back of it which makes the relations of a firm with its workers and the safeguarding of their health at least as important in the organization of the industry as the sale of the products. Several plants have employment executives. The extension and strengthening of their work are desirable.

Most vital now is the development of health activities in the community, preferably under the direction of a municipal health department in cooperation with the United States Public Health Service, while the industrial commission of the State carries forward its supervision over health conditions in the plants.

The final recommendation is fundamental as affecting all the others which have been made. The most immediate, practical way to stimulate the management to make progress in the engineering problems of safety and sanitation in the plants and to insure more effective health supervision is to extend the scope of the workmen's compensation law of New York State to include occupational diseases. If a woman operating a machine in a Niagara plant loses a finger she is

¹ New York State. Second Report of the Factory Investigating Commission, 1913. Chapter on Chemical Industries (p. 459).

entitled to compensation according to the workmen's compensation law. If in the same plant, she is poisoned by lead, with all the dangers of serious after-effects not only for her but for her children, the present workmen's compensation law does not protect her. The result is that throughout the State marked progress has been made in guarding against accidents, but only very slight progress has been made in guarding against the disease which is as directly due to the occupation as any industrial accident. No other single measure can be put forward with equal confidence as sure to result in great improvements in the plants of Niagara Falls, and in similar industries throughout the State.

CHILD LABOR.

INCREASED NUMBER OF WORKING PERMITS ISSUED TO CHILDREN IN WASHINGTON, D. C., IN 1917-18.

The Children's Bureau of the United States Department of Labor on December 15, 1918, made public the findings of a brief survey into the effect upon school children of war-time conditions in Washington, D. C., made in connection with the back-to-school drive of Children's Year.

The survey shows that while the actual number of children between 5 and 14 years of age in Washington increased 8.7 per cent and the number between 15 and 19 increased 11.6 per cent between November 1, 1915, and November 1, 1917, the number of children attending school did not increase correspondingly. The enrollment for the school year 1917-18 was but 2 per cent more than that of the previous year. The attendance of white children in the elementary schools increased, but there was a decrease in the attendance at the elementary colored schools and at high schools for both white and colored children.

The great increase in the number of working permits issued in Washington in 1917-18 shows what has become of these children. The total increase in the number of regular employment certificates issued in 1917-18 over that for 1916-17 was 163 per cent. Especially great is the increase, 205.7 per cent, reported for colored boys.

In Washington, working permits may be issued to children between 12 and 14 years of age by the judge of the juvenile court upon proof of need. In permits issued to children because of poverty the increase this year over last was 295 per cent.

The bureau made special inquiry to learn the occupations into which these children under 14 years of age had gone. In 1916-17, of the 277 children granted poverty permits, 52 per cent went into stores, 34 per cent became office messengers, 11 per cent went into the Government departments as messengers, and 3 per cent went into factories. In the year 1917-18, the number of poverty permits issued jumped to 1,095. Of these 41 per cent instead of 11 per cent entered the employ of Government departments, 40 per cent instead of 52 per cent went into stores, 17 per cent were employed as office messengers outside the departments, and 2 per cent entered factories.

Efforts to return to school as many as possible of these children are now under way in Washington as part of the Nation-wide back-to-school drive, conducted by the local child welfare organizations of the Council of National Defense in cooperation with the Federal Children's Bureau. Thirty States have reported that they have undertaken the campaign, whose purpose is not only to meet the immediate need of getting back to school children who left for war work, but to get better legislation for their protection.

INDUSTRIAL POISONS AND DISEASES.

PRACTICAL POINTS IN THE PREVENTION OF TNT POISONING.

BY ALICE HAMILTON, M. D.

The National Research Council was established in April, 1916, by the National Academy of Sciences to act as the department of science and research of the Council of National Defense. In the summer of 1918, this council took up the study of occupational poisoning in the munitions industry, and, as one feature in this study, they decided to send into certain plants medical students well trained in laboratory methods and in making clinical observations, in order to collect on the spot certain important data. Among the plants selected were two in which TNT is manufactured and purified, and four in which shell is loaded with TNT or amatol. The six students spent from one to two months at the plants assigned them, making careful observations on a limited number of the men and women employed there. Some of the results at which they arrived are of purely scientific interest, but others have a practical bearing, and it is with the latter only that this article deals. In many instances a study made simply for the sake of clearing up some theoretical point proved to have a distinct bearing on the way in which TNT poisoning occurs, and how it may be prevented.

Additional light has been thrown on the following points:

1. How TNT enters the body, whether through the skin, or by breathing fumes, or by breathing and swallowing dust.
2. Are young people more susceptible than the fully developed?
3. Is there any difference in the susceptibility of whites and Negroes?
4. Is there any difference in the susceptibility of men and women?
5. Has the weather any effect on the amount of poisoning?
6. How long an exposure is necessary before TNT can be detected in the human system?
7. How long does it take to get rid of the TNT that has been absorbed?
8. Which is more poisonous, crude TNT or pure; amatol or un-mixed TNT?
9. What are the symptoms of TNT sickness, especially the symptoms which appear earliest?

Four hundred and two workers were examined in the six plants, only 36 of whom were women. The conditions under which these people worked were so different in the different plants that some description will be necessary to account for the variations in the results obtained by the students.

Plants 1 and 2 load shell with TNT, or rather did so last summer. These factories were situated not far apart in northeastern New Jersey, in hot, shadeless country, where the August weather of last summer was very trying. The two plants differed somewhat in the methods used, but both were unusually unclean; the floors and benches, especially of one of the pouring rooms, were covered with drippings of molten TNT; they were crowded; ventilation was far from ample; there was a good deal of escape of fumes and, in one especially, a great deal of dust in the boring room. The men employees in both plants were for the most part of a low class, careless in their personal habits. The washing facilities were not conveniently situated, nor was ample time given for using them, hence the employees did not acquire habits of cleanliness, and even those who were naturally cleanly found it hard to keep clean. In plant 2, good full suits of overalls were furnished. In plant 1 the overalls were not complete suits and were very dirty, often stiff with TNT. In neither plant were the employees given any instructions. In neither did the physicians have anything to do with shop sanitation. The physicians' duties were confined to visits at stated times when men who felt sick and had confidence in the plant doctor could seek him out and ask for care. The physicians did nothing to prevent sickness, and not very much in the way of treatment; for if they thought a man likely to develop a serious case of TNT poisoning, they promptly discharged him in order that he might not become a charge on the company.

These two plants were assigned to student A. She saw more cases of severe poisoning than did any of the others, but she was hampered in her study of these cases because there was no hospital where they could be closely observed, and usually her notes of an interesting case were brought to an abrupt end by the man's discharge. Even if he were not discharged he was likely to quit of his own accord, for the labor turnover in these two plants was enormous, as one would expect it to be; indeed, it seemed that the management took it for granted that nobody would stay more than a few weeks, and believed that during that short time they could not get very seriously poisoned, and so there was no need to provide adequately for the prevention or treatment of poisoning. Student A was never able to report on the results of different kinds of treatment as could some of the other students.

Plant 3, loading shell with amatol, was new, clean, well constructed, and carefully managed. There were fairly good washing facilities, though the shower baths had only cold water. Full suits of overalls were provided and laundered by the company. Medical supervision was well planned but was not thorough enough, and there were no hospital facilities, except in a near-by city. The employees were of a better class than in Nos. 1 and 2, but there was an unusually large proportion of young men among them. Student B, who studied this plant, was able to spend only one month at the plant, and as the force was largely composed of newly-employed men, the amount of poisoning observed was not great. This plant also is in northeastern New Jersey.

Plant 4 was in Virginia, in the flat country near the coast. Shell was loaded here with two amatol mixtures. The fifty-fifty mixture was poured at that time, the eighty-twenty loaded by the extruder machine. The plant was in two parts, the new one, loading eighty-twenty, was clean, large, and well ventilated; the other, pouring fifty-fifty, was older, rather dirty, more crowded and, in the drilling room, decidedly dusty. The men employed were Negroes and southern whites, many of the latter being from the North Carolina mountains. These were often of very poor physique and an examination of their blood showed that almost one-third were probably suffering from hookworm disease. Of course this would mean that they could not be expected to have the normal degree of resistance to an industrial poison. The medical care given here was by far the best in any plant. The physician's supervision extended into the workrooms, where he inspected the men and women at frequent intervals, and when he thought it necessary he had the foreman shift them to places where they need not come in contact with TNT. He was thoroughly familiar with all the processes carried on in the plant and with the conditions in each department. The plant had a well-equipped hospital, and sick men were treated there. This physician was assisted by one woman doctor and two or three men.

Student C was therefore able to make observations on men for long periods and was able to follow cases of sickness to complete recovery. He did not, however, see as serious cases as did Student A, for the men in this plant were given vigorous treatment before they reached an advanced stage of sickness.

Plant 5 was situated in the mountains of Pennsylvania. Crude TNT was purified and packed here. The plant was fairly clean except in the screening and packing departments. Fumes were fairly well carried off and there was no place that was really very bad. The men were not provided with full suits of overalls, nor were the washing arrangements either ample or comfortable. The medical care was good, but did not extend to the men who did not seek out the doctor

themselves, nor had the latter anything to do with the prevention of poisoning. Both Negroes and whites were employed. Two students, D and E, were stationed here for one month.

Plant 6 was in northern Wisconsin, near Lake Superior. DNT and TNT were made and purified and packed. The class of employees here was decidedly superior to those employed in the other plants. Conditions were very good; there was no crowding; dust and fumes were well controlled, and there were ample facilities for washing. Medical care was good, but not sufficient, one physician with a part-time assistant having not only some 3,000 men under his care but the examination of all applicants for employment. Naturally he was not able to do much preventive work. He was, however, familiar with all the different departments and had a regular system of transferring the men who became sick to a place where they would be less exposed to poison or not exposed at all. Unfortunately, there is no hospital on the grounds. Student F was able to make observations on men exposed to DNT as well as to TNT.

It would be quite inappropriate in an article of this kind to describe the chemical and microscopic examinations made by the students, but it is necessary to give a brief description of one test which they used on the urine, because repeated references will be made to the test throughout this article. This is the so-called Webster test which was devised by an English chemist, and which depends on a color reaction in the urine of a TNT worker when the urine is extracted with ether¹ and treated with alkaline alcohol. According to the degree of the reaction a color appears which varies from a pale cloudy pink to a deep purplish pink, changing rapidly to brown.

The reaction is noted as a Webster 1 when the color is faint and as a Webster 5 when it is very deep, the shades between being indicated by 2, 3, 4. The substance that gives this color is not trinitrotoluene, but a reduction product, in which one NO_2 group is replaced by an NH_2 group. The appearance of this substance in the urine shows that the person has been exposed to and has absorbed TNT. The quickness with which the substance appears in the urine depends chiefly on the extent of the exposure. The intensity of the reaction depends on the extent of the exposure, and probably also on the power of the body to get rid of the poison. It is easy to see, then, that the Webster reaction gives us a reliable measure of the comparative amounts of TNT absorbed by workers in different plants or in different occupations in the same plant, and under varying sanitary conditions. It also shows the effect of hot weather as compared with cool weather, and gives us a measure of differences in race susceptibility, and of the effectiveness of certain preventive meas-

¹ In this process the urine is shaken up with ether, after which the ether is filtered off and used in the

ures and of certain curative measures. A man whose urine gives an intense reaction (a Webster 4 or 5) is a man who has had excessive exposure to TNT. He is probably either already suffering from TNT sickness or soon will be, but this is not certain for he may be getting rid of it as fast as he can absorb it. All that we can say positively is that he has absorbed a great deal of TNT and that he is at this moment excreting a large quantity, but no one can say when the quantity absorbed will be beyond his powers of elimination and enough will be retained in the body to poison him. For this reason a TNT worker whose urine gives a Webster 4 or 5 is looked upon as being in a risky condition even if he feels quite well.

The answers the students were able to give to the various problems submitted to them are based largely on the hundreds of Webster tests they made, although in no case did they fail to make all other observations which had bearing on the particular point they were trying to solve. These questions are taken up in the order in which they were given.

HOW DOES TNT ENTER THE BODY?

Industrial poisons may enter the body through the skin or be carried to the mouth with food and chewing tobacco that is held in soiled fingers or that has been carried in a soiled pocket, or laid on a soiled surface, or they may enter along with the inspired air in the form of fumes or dust, in which case most of the poison is caught on the mucous lining of the nose and throat and swallowed with the saliva, a smaller part reaching the lungs. The first thing to discover about any new poison is which of these ways is the important one, for all the measures planned to protect the workmen from poisoning depend on this point. TNT is a very new industrial poison, most of our information about it dating from 1915 only. At the beginning of the war many people did not even know it was a poison and only after some months' use in British munition works was it found to be a very decidedly dangerous substance. After that it was assumed that dust and fumes were equally dangerous, but as observations multiplied British physicians began to think that fumes were the least important feature and that dust was important not so much because it would be breathed in, but because, by falling on the skin, it would be moistened by the perspiration and absorbed through the skin. The skin then came to be considered the most important path of entrance for TNT into the body. There were even some British authorities who declared that the fumes from molten TNT were harmless and hoods with exhausts were only a needless expense.

In order to throw some light on this question the students were told to select groups of workers some of whom would be exposed to skin contact, others to dust, and others to fumes, and to compare

the signs and symptoms of poisoning in the different groups. This proved to be practically impossible, partly because no one group ever contained the same men at the end of a fortnight as it had at the beginning and partly because there was no work which involved exposure to one kind of poisoning and not to others. Every man who was exposed to fumes was exposed also to direct contact with TNT and the same thing was true of the men exposed to dust. Still in spite of this handicap the students were able to arrive at a conclusion.

Nothing very clear emerges when one tries to discover whether dusty work or work in an atmosphere of fumes is the more dangerous. Student A found the largest number of sick men in the pouring room, student C in the room where fifty-fifty amatol was drilled. Student F found the greatest amount of sickness in the graining and pelleting of TNT, not in packing, while D and E had the largest number of sick men in the packing house and at the dumps into the screens for the packers. These different statements mean simply that there is the greatest amount of sickness in the part of the plant that is worst managed. If the pouring room is crowded, poorly ventilated, and very dirty, the highest sickness rate will be there, provided the drilling room in this plant is fairly dust free. This happens to be the case in plant 1, while in the loading plant where student C was stationed the pouring room was not very bad but the drilling room was full of dust. In the same way the packing department of one of the nitrating plants, No. 6, was clean and safe, the one in No. 5 was very dusty. Observations of this kind, therefore, do not really lead to any conclusions as to the relative danger of dust, fumes, and contact. It is necessary to make much closer studies to determine this point.

It may be stated as a rule almost without exception that whenever the men are exposed to fumes of TNT they are also coming into direct contact with it in the course of their work and also that no man can work in an atmosphere of TNT dust and not be exposed to contact with it, because the dust falls on the exposed skin and covers all the surfaces which he must handle. The hands of TNT workers are always stained a yellow brown or a deep reddish brown.

The reasons that lead us to believe that the skin is by far the most important channel of absorption are these: Wherever the amount of TNT sickness is greatest it is found that the workers are handling TNT in a form easily absorbed or that their skin is dusted over with easily absorbable TNT. Dusty work does not result in poisoning unless the dust is of such a character as to allow it to pass through the skin.

For instance, a group of men in plant 4, sifting pure TNT by hand, worked in an atmosphere foggy with dust, but not one of them was

sick during the two months the student was there. In the pouring room, on the other hand, there was a great deal of sickness. The same contrast was found in plant 6. Men pressing dry TNT into demolition blocks seemed to have no trouble at all, but the grainers and pelleters had a good deal of sickness. Such observations as these seem to furnish an argument for the danger of fumes and the harmlessness of dust, but that is not the correct interpretation. The difference, we believe, lies in the physical properties of the different kinds of TNT and the readiness with which each is absorbed by the skin. Pure TNT dust that falls on the skin does not seem to be absorbed readily. If one examines closely the arms of a man who is sifting the dry powder the skin will be seen to be covered with powder, but unless the day is hot enough to make him perspire a good deal of the powder is dry. But in the graining and pelleting of TNT there is warmth and moisture and the men's hands are soaked and show a deep orange stain. In the loading department the men come in contact with warm, half-molten TNT and their hands are deeply stained. It really comes down to the question of different degrees of skin absorption.

In the same way is to be explained the large amount of poisoning that comes from handling amatol, and also from exposure to amatol dust. The British long ago said that all amatol, even the eighty-twenty mixture, was more poisonous than pure TNT, and our students found this to be true. The ammonium nitrate in the amatol is hygroscopic, so much so that the floors and benches where amatol dust falls are always rather damp and moisture collects on the surface of the shell, and the workers' hands are moist all the time. Tiny droplets of moisture can sometimes be seen on the hairs of the arms if one looks closely. If the departments where pure TNT is handled are compared with the departments where amatol is handled, the latter will be found to have a strikingly larger number of cases of sickness. Certainly it was found to be true that those men who were the most exposed to skin contact by handling TNT and amatol, or by having the skin dusted over by amatol powder, had the severest symptoms of poisoning and the highest average Webster reaction.

These observations, then, confirm the opinion of the British observers who assert that the skin is the channel of absorption for TNT, and that direct contact is the danger to be avoided. But they do not altogether disprove the harmfulness of TNT fumes, nor would they lead us to say that kettles need not be hooded and that fumes from grainers and washing tanks are harmless. Some of the students' reports seem to show that fumes of TNT may be dangerous. The graining, pelleting, and washing rooms, where fumes mixed with steam are quite evident, have given rise to a good many cases of sickness. The rapidity of poisoning in some instances seems to point to fumes rather than to skin contact. For instance, a new employee

was set to work, on a fairly cool day in June, stirring a kettle of molten TNT in a pouring room where the fumes are allowed to be very heavy at times. He became dizzy and faint and went to the doctor, who found his lips blue and his pulse weak and rapid and suspended him from work that same day. This was on a Monday, and on the following Friday he was still feeling ill and his urine was dark in color. Several students report cases of men who, having once suffered from TNT sickness, can go back to work in which they come in contact with it, but if they must be exposed to the fumes they suffer a return of the headache, dizziness, breathlessness, and weakness that they recognize from their former experience.

In this connection might be mentioned the story of a superintendent who was in charge of the loading of mines and depth charges in another plant. He had under him about 200 men, 150 of them loading mines and depth charges with molten TNT, and 50 pressing TNT powder into booster charges. The two groups worked in separate rooms; both came in contact with TNT but the men who were pouring were exposed to a great deal of TNT fumes from the kettles and from the cooling charges, but not to dust, while the booster men were exposed to a great deal of dust but to no fumes. According to the superintendent practically 100 per cent of the men in the pouring department were made sick, no man having been able to keep at work for more than three weeks without showing the effects, while among the booster men there was hardly any sickness at all. The superintendent did not come into much actual contact with the TNT but he was frequently overcome when he had to stay in the room where the fumes were heavy throughout the nine-hour shift. A very interesting report on this point was sent in by student A who, on two occasions, remained in the pouring room full of TNT fumes for two or three hours, being careful not to touch anything during the time. After both these occasions it was possible to demonstrate TNT in the urine by the Webster test. All this seems to show that TNT may be absorbed through the breathing of fumes even though that is not the usual mode of absorption.

It is, of course, by no means certain that the volatile substance given off from molten TNT is only TNT; indeed we have reason to believe that other bodies are present, some of them probably more rapidly toxic than TNT. Experiments now being carried on will, it is hoped, clear up this point.

ARE THE YOUNG MORE SUSCEPTIBLE THAN THE FULLY GROWN?

Forty per cent of the employees in these six plants were under 25 years of age, 22 per cent under 21 years. The largest proportion of youthful employees was found in plants 3 and 4, both fortunately very good places. The students did not always find great suscepti-

bility to TNT poisoning among the younger men, but student A was fully convinced of it. According to her notes, plant 1 did not have many men under 25 years, but the few under that age showed a very low resistance to the poison. Three lads of 19 years were discharged after three weeks' work because the doctor was unwilling to take the risk of keeping them any longer. One man of 21 years, who was unusually careful and cleanly in his habits, was so sick at the end of the first week that the doctor discharged him. Of all the men who were discharged from this factory during one month on account of sickness, one-third were under 25 years of age. This is especially significant in view of the fact that only one-eighth of the total number of employees were under 25 years.

None of the students in the better plants noticed such an increase of susceptibility in the younger men in the force, yet a close analysis of the records from these other plants brings out fairly clearly the greater susceptibility of the younger men. In plant 4 a group of 48 men were selected, 19 of them over 30 years, 29 under 21 years, in order to compare lads with middle-aged men. Then a note was made of the number of days each man had worked before he first noticed symptoms of sickness. The middle-aged men averaged 49 days, the young men only $10\frac{1}{2}$ days. In each of these groups there was one man of exceptional resistance, a man of 37 years who had worked nine months and had been perfectly well, and a lad of 18 who had worked six months and had been perfectly well. The young group had usually reacted to the TNT with great rapidity, for only 5 out of 29 had worked as long as two weeks without feeling any effect, while 12 out of 19 of the middle-aged had worked longer than two weeks without feeling the effect, and 7 of them had never had any symptoms at all.

Similar groups were picked out from the records of plant 6, 38 being men over 30 years and 12 men under 21 years. The older men averaged 56 days' exposure before they noticed symptoms of sickness, the younger seven to eight days. Here, again, only 2 of the young men had worked as long as two weeks before feeling sick, and of the middle-aged group 24 had worked longer than that. The instances of unusual resistance in this plant were a man of 32 years who had worked two and a half years and always been well, and one of 19 years who first felt sick at the end of six months' exposure.

Fifteen cases, in which there was evidently a marked oversusceptibility to TNT, were selected at random from the history sheets of two good plants. These men had developed symptoms in a very short time, and had had to be transferred to other work. On referring to the age lists it was found that only 1 of these 15 striking cases was a man over 21 years old, and this one was only 24 years old. A few histories may be given to illustrate such cases:

A boy of 18 was set to clean out eighteen to twenty amatol tanks during the heat of August. He worked only three days and then went to the doctor, deeply jaundiced, the whites of his eyes a bright yellow. He was vomiting, had diarrhea, pains in the abdomen, weakness of the knees, and a greenish tinge in the urine.

Another lad of 17 years came to the doctor after four weeks' work in such a wretched physical condition that the doctor ordered leave of absence at once. His face was greyish, his lips and mucous membranes deep blue, his eyes inflamed and running. He complained of breathlessness and dizziness; a feeling of exhaustion and mental depression; his knees were weak; and he had no appetite and was nauseated. His urine gave a maximum Webster reaction. When he returned after his two days' leave, he was in practically the same condition and the reaction was still of maximum intensity, so that the doctor thought it best to discharge him.

Another man of 20 years was only slightly exposed to TNT, for he was pouring pure TNT into the formers of amatol shell in a clean, well-ventilated room. However, he began to feel sick on the third day and at the end of the week went to the doctor complaining of continual severe headache. He was put off TNT work for two days, felt better, and returned to his former job. After five days more he went back to the doctor, his lips at that time a deep blue and his face a strikingly livid color. He complained of cough, tightness in the chest, of weakness and dizziness, persistent headache, and pains in the legs and arms. It was found that he already had marked changes in the blood and a Webster reaction of maximum intensity. He was ordered off TNT, but four days later the urine still gave a maximum reaction. Then it was discovered that, though he had left the TNT department, he was carrying shell which had a good deal of amatol smeared over them. He was given a two days' leave and was then put into the empty-shell house, and finally, on the eighth day after this, his urine no longer gave the Webster reaction. His lips, however, were still bluish and his symptoms had not all disappeared. It was not until after another week that his color finally became normal.

It seems probable that if records were kept of the amount of medical care that is given to the younger men, the number of days they are absent on account of sickness, the proportion of them that have to be transferred on account of sickness, and the number that quit, it would be found that the employment of these younger men is really wasteful.

SUSCEPTIBILITY OF WHITES AND NEGROES.

Only two plants, No. 4, loading shell with amatol, and No. 5, purifying crude TNT, employed Negroes. Of course, in order to

make a real comparison between Negroes and whites with regard to their susceptibility to TNT, one would have to have the two races under the same conditions, not only during their working hours but also in their home life. Unfortunately, the Negroes in plant 4 were only in part employed at the same work as the white men. There was one group sifting TNT in the service house which was made up of Negroes entirely. Their living conditions, also, were quite different from those of the whites. The white men lived in quarters provided by the company and had a diet very rich in meat, but with almost no fresh vegetables and fruit. The Negroes lived in their own cabins, ate little meat and a great deal of fresh fruit and vegetables. Both had plenty of opportunity to take baths in the plant, but the Negroes availed themselves of this opportunity more than did the mountain whites. With these things in favor of the Negro it is hard to decide how much of his apparent immunity to TNT poisoning in this plant is to be explained on the ground of a real racial immunity. Certainly it is true that no Negro came for treatment for TNT sickness while the student was stationed at the plant. The men employed in the service house had only a slight Webster reaction in the urine, or none at all, and while some of those who handled amatol gave a moderate Webster reaction, their urine was normal in color, not dark, as was the urine of the whites in this department.

In plant 5 Negroes and whites lived under practically the same conditions and worked in much the same departments, and here there was no such contrast between the two races as in plant 4. The two students report as follows: "We observed very carefully the relative susceptibility of Negroes and whites in the same jobs, and we could see no difference between the two races. We came to this conclusion after an examination of 37 whites and 13 Negroes. Among the 13 Negroes were one or two who showed marked poisoning; indeed, the most complete case of TNT poisoning that we had was in a Negro, while on the other hand we found several Negroes entirely unaffected after long periods of exposure. The Negroes bathed, roughly speaking, as often as the whites, neither race having a high standard of cleanliness. Both had the same facilities for bathing and these facilities were reasonably good. The Negro bunk houses were no dirtier than the white and the food given the Negroes was the same as that given the whites."

It is evident that we shall need a much more extensive study of Negroes working and living under the same conditions as the white men before we can say whether they are less susceptible to TNT. Since this is a poison absorbed chiefly through the skin we should expect them to be more resistant.

SUSCEPTIBILITY OF MEN AND WOMEN.

The British reports have not shed any light on this question, perhaps because the vast majority of TNT workers in England are women. Our studies do not enable us to form any conclusion for the opposite reason, our employees are almost all men. We have records of only 36 women, who were employed in four shell loading and detonator plants last summer and who were carefully examined, not only with regard to their symptoms but with regard to the possible changes in blood and urine. These women were, for the most part, between 18 and 22 years of age. Only six were over 30. They were not employed in the really dangerous work, preparing the charge, loading the shell, and drilling the hole for the booster charge. The work they had to do should have involved only slight contact with TNT, but, unfortunately, 16 of them were working in plants 1 and 2, where TNT was so carelessly spilt and scattered about that it was impossible to handle anything without getting some dust on the skin. A group of 7 women whose hands were stained from handling shell smeared over with TNT were carefully examined. Five complained of slight symptoms, and 3 showed the presence of TNT in the urine, but none had blue lips, and none of them had applied for treatment except one married woman who complained of nausea and vomiting, and the physician suspected that she was pregnant. Another group of 9 girls was examined. They were working in the detonator assembling department where small quantities of TNT are handled in dry form. As has been stated already, pure TNT dust is not so poisonous as moist TNT or molten TNT, and causes comparatively little disturbance even when it is handled in much greater quantity than it is in the detonator department. One girl in this group, 20 years old, who had been working 24 weeks, longer than any of the others, showed fairly serious symptoms, including loss of 15 pounds in weight. The others had either no complaint or only slight symptoms.

Those two groups were employed under bad conditions and though their exposure was slight, it was greater than it need have been. The third group consisted of 8 women employed in plant 3, which was large, well ventilated, and clean. None of these 8 women had suffered from the effects of their exposure to the small quantities of amatol in solid form or to the slight fumes of molten TNT which they encountered in pouring. One of them showed a Webster reaction of 4, which is high enough to make one look for an attack of illness sooner or later; a second had a Webster 3; all the others had only slight or negative reactions.

The fourth group, 10 women, were also employed in a model Government plant, plant 4, but they were doing work that involved

more contact with amatol, such as cleaning the outer surface of loaded shell, cleaning the threads of the screw necks of loaded shell, or placing finished shell in cars. Six of the 10 had dermatitis. Five of these 6 had some symptoms of systemic TNT poisoning, though it was slight in all but one. This one woman, 31 years old, had been at work only two weeks and was evidently quite susceptible to TNT. She had an eruption not only on the hands but also on arms and legs. She complained of a bad taste in the mouth, nausea, especially in the morning, constipation, sore throat, and pains in the legs and arms. However, neither blood nor urine showed that she was really seriously affected. Four others had more or less pain in the abdomen but only one complained of nausea and only one of diarrhea. None of them had blue lips.

Just as is true of the comparison between Negroes and whites, one would have to study men and women working in the same occupations to be able to compare their resistance to TNT poisoning, and that is impossible as yet in our American plants. So far, we have no indication that women are more susceptible than men. In considering the effect of a poison on women, it must be remembered that one feature enters into the question that does not have to be considered with men, and that is the effect of the poison on the woman's children, born after her exposure to it, especially if the exposure occurs while she is pregnant. This has been worked out experimentally only with two poisons—lead and alcohol—both of which have been shown to have a marked effect on the offspring through the mother's blood. Of course, it is quite possible that this is true of other poisons as well.

EFFECT OF HOT AND HUMID WEATHER.

Every manager and foreman of a TNT plant believes that poisoning is very much more common and severe in hot weather and that the effect of the heat is increased by humidity. The students in every plant except No. 5 were at work during the extreme heat of last August, and all found that the cases of sickness leaped up during the hot days and for a few days just following. The two students assigned to plant 5 did not reach there till the heat was over, but they heard plenty of testimony from the management and the physician as to the effect of those hot days on the cases of sickness.

At plant 1, 20 cases came to the doctor for treatment during a hot spell lasting six days, when the temperature was between 90° and 106° F., but this did not represent nearly all of the sickness, because on the hottest day so few men reported for work that the plant closed down, and on the day following only about a third of the usual force was at work in the pouring and drilling departments. In this same plant only four men came for treatment during six days when the

temperature was between 68° and 89° F. In several plants men who had been poisoned and had been transferred to work free from TNT, where they had completely recovered, suffered a recurrence of their symptoms on a hot day.

LENGTH OF EXPOSURE TO TNT BEFORE ABSORPTION TAKES PLACE.

The changes in the blood that are found among these TNT workers have been only briefly mentioned, because they are chiefly of scientific interest. It is interesting, however, to note the rapidity with which they appear in certain cases. For instance, among 68 men who showed these blood changes, there were 5 who had worked not longer than three days, 3 who had worked only one week, 8, two weeks, and 5, three weeks. This change in the blood is supposed to be a defensive effort of the body against the inroad of some harmful agent.

The Webster reaction also may appear very early. Mention has already been made of the student who secured a positive reaction in the urine after two or three hours' stay in the pouring room of plant 1. In this same plant the reaction was found to be clearly positive in 10 newly employed men who had been exposed only six hours. In an analysis of 133 cases giving an intense reaction, it was found that 39 per cent had been exposed no longer than one to three weeks.

There are plenty of records of men who felt the first symptoms of distress on the first or second day of their employment, but sometimes these symptoms passed over and they felt quite well for a period, and finally, after longer exposure, developed symptoms of another kind. Students C, D, and E all describe a transitory disturbance of digestion, with loss of appetite and a bad taste in the mouth, and usually diarrhea, with more or less pain, these symptoms coming on early, without any blueness of the lips or dizziness and headache, and often passing over in a few days. On the other hand, the more characteristic symptoms—breathlessness, a sense of tightness in the chest, headache, dizziness, dullness, and lassitude, with pains in the limbs, weakness of the knees, blue lips, and a livid color—may begin during the first week or fortnight and persist. On the whole, the men who complain of TNT sickness have for the most part felt the first symptoms fairly early, even in a very good plant. Nearly a third of them will have experienced some effect from the TNT before the first fortnight is over.

HOW LONG DOES TNT REMAIN IN THE BODY?

If we take the Webster reaction in the urine as a gauge of the elimination of TNT we find that most men can get quite rid of what they have absorbed within a fortnight after complete removal from

exposure to the poison. But, just as there are some men who absorb it more rapidly than the average, so there are some who take longer to get rid of it. There was a man in plant 6 who continued to give the Webster reaction in the urine five weeks after he had been taken off TNT work. This is not entirely a matter of individual idiosyncrasy; it depends partly upon the completeness of the man's removal from exposure and whether or not he is given treatment to help him to get rid of what he has absorbed. Since this is a point of great practical importance, the students were asked to make repeated tests of the urine of those men who were under the doctor's care and also those who had been shifted to jobs where there was little contact with TNT, or where there was no contact at all. Students C and F were the only ones who could get such records, because the system of shifting men and keeping track of them was carried on well only in plants 4 and 6. These two students sent some very interesting histories.

The most rapid instances of diminution and disappearance of the Webster reaction came from plant 4, where men with TNT sickness are taken into the works' hospital, given a thorough scrub bath, then a cathartic, an enema, and a drug which stimulates the action of the kidneys—acetate of potash. They are also encouraged to drink quantities of warm milk. Under such treatment the symptoms clear up rapidly and the Webster reaction falls from intense to slight in an unusually short time. One man under this treatment cleared up almost completely in 36 hours. He was a lad of 18, who said he had never been sick in his life before, and who had been employed for 25 days. He came to the doctor first with blue lips, pale and heavy-eyed, complaining of dizziness and headache, dullness, depression, fatigue, and poor sleep. The Webster reaction at that time was 4. Six days later he came back with typical symptoms of acute poisoning, and with a reaction of 5, severe abdominal pain, nausea, livid color, and weak pulse. Under the treatment described above the reaction was brought down from 5 to 1 in 36 hours, and the symptoms had improved greatly, though they had not disappeared. Another man, with much the same symptoms, had a reaction of 4 which fell to 1 in 24 hours.

If the man is transferred to work where he does not come in contact with TNT the Webster reaction disappears, but more slowly than under vigorous hospital treatment. The records from plant 6, where there is no hospital, show a slower clearing up. For instance, a man who, because of symptoms of sickness and a Webster 4, was transferred to outside work on July 21, did not give a negative reaction till August 31. Another who after four weeks in the pelleter house had decided symptoms of sickness and a Webster 4, was trans-

ferred to TNT-free work July 24. It was not till 10 days after that his reaction fell to 1. Sometimes the new work involves some slight contact with TNT and this seems to be poor economy, for the clearing-up process is delayed and is not complete. A lad of 18, sick and with a Webster 5, was given work free from TNT every other night. The result was that on the morning after work of that kind he would have a Webster 1, but after a night of pouring TNT it would be 3. A pelleter who had a reaction of 4 was transferred to the nitrating department where he came into slight contact with TNT. His reaction fell to 3 in 6 days, then to 1, where it remained. Student C had several instances of men with persistent Webster reaction 1 or 2, even after transference to the empty-shell house, and he came to the conclusion that as long as a man continued to wear old gloves that were soaked with TNT he would continue to absorb it in small quantities.

The following table shows the records of Webster reaction in some of these men in plant 4, who were followed for a number of days. The features to be noted are the effect on the reaction of hospital treatment and the effect of dirty gloves. The first four who were taken into the hospital cleared up very quickly. No. 5, who did not wear dirty gloves, also cleared up quickly. To be sure, his reaction was slight to begin with, but that was true also of Nos. 11 and 12, who, wearing dirty gloves, kept on having the same reaction. Another thing to be noted is the effect on case 6 of a return to TNT work.

RECORDS OF WEBSTER REACTIONS FOR 12 EMPLOYEES EXPOSED TO TNT IN PLANT No. 4.

Em- ployee No.	Job.	Average Webster reaction while working at job.	Method of dealing with case.	Old gloves.	Webster reaction recorded on specified day after beginning of hospital treatment or transfer to TNT-free work.													
					1	2	3	4	5	6	7	8	9	10	12	14		
1	Various in TNT.	4.3	Hospital treatment.	No.	4	(1)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Pouring.....	3.0	.....do.....	No.	3	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....do.....	3.7	.....do.....	No.	5	4	2	.....	1	0	.....	.....	.....	.....	.....	.....	.....
4	.....do.....	2.0	.....do.....	No.	2	1	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Shell clean- ing.	1.0	Transferred to TNT- free work.	No.	1	1	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Pouring.....	3.7	.....do.....	Yes.	2	.....	.....	.....	2	2	1	1	(2)	2	.....	.....	.....
7	.....do.....	3.3	.....do.....	Yes.	5	.....	4	4	.....	2	.....	.....	.....	2	2	1	0
8	.....do.....	1.6	.....do.....	Yes.	2	1	1	1	.....	1	1	1	0	.....	.....	.....	.....
9	.....do.....	3.0	.....do.....	Yes.	3	4	3	2	.....	2	1	1	1	(3)	.....	.....	.....
10	.....do.....	4.4	.....do.....	Yes.	2	1	1	2	1	1	1	1	1	(5)	.....	.....	.....
11	Transfer house.	1.0	.....do.....	Yes.	1	.....	.....	.....	1	1	1	1	.....	.....	.....	.....	.....
12	Pouring.....	1.0	.....do.....	Yes.	1	1	1	.....	.....	1	.....	.....	.....	1	0	.....	.....

¹ 1 in the forenoon; 0 in the afternoon.

² On this day he was put back into the pouring house.

³ Quit.

POISONOUSNESS OF CRUDE TNT, PURE TNT, AND AMATOL.

The greater absorbability of amatol as compared with pure TNT has been already discussed in the section on the different ways in which TNT enters the body. In plant 4 the Negroes sifting pure TNT had no Webster reaction or one of 1 or 2 at the highest, while those working with amatol had a reaction up to 3.

It was hoped, as a result of the studies in plants 5 and 6, that it would be possible to say something positive about the comparative danger of crude and pure TNT, but more extensive studies will have to be made before this can be done. All that can be positively stated is that dermatitis of TNT workers is more frequent in the two plants where crude TNT is handled. It was expected that the largest proportion of cases of what the men call itch would be found in the neglected loading plants in the New Jersey meadows, where there was much heat and humidity and where there was little effort at cleanliness in the plants and poor facilities for bodily cleanliness. Instead, it was found that those very plants, 1 and 2, were freest from dermatitis, while the largest number of skin cases occurred in the two coolest situations, the nitrating plant in northern Wisconsin and the finishing plant in the Pennsylvania mountains. Since the Wisconsin plant is not only in a cool climate, but is much cleaner than the New Jersey plants and has far better bathing facilities for the men, it seems evident that there must be something in the material handled that is responsible for so much dermatitis.

Following is the proportion of itch among the men and women in the six plants:

	Per cent.
Plants 1 and 2, loading pure TNT.....	3.4
Plant 3, loading amatol.....	18
Plant 4, loading amatol.....	20
Plant 5, purifying crude TNT.....	26
Plant 6, manufacturing crude and pure TNT.....	31

Evidently crude TNT is more productive of dermatitis than pure TNT, and amatol than unmixed TNT.

In this same plant it was possible to study the effect of TNT on a group of seven men. These men had been employed for periods running from one month to three years, four of them having worked more than six months. A study of the symptoms complained of shows an absence of the abdominal pain and digestive disturbances so often complained of by TNT workers. These men complained of breathlessness and a bandlike feeling around the chest; sometimes of palpitation of the heart; also of fatigue and disturbed sleep. Only one developed symptoms after one month's exposure which were serious enough to require his transference. His most prominent symptom was severe pains in the kidneys. The most striking difference between these men and the TNT men was that the urine of only one, the man just described, gave a Webster reaction.

SYMPTOMS OF TNT POISONING.

The earliest symptom to appear is usually breathlessness on exertion, especially going up stairs or climbing a hill. A man who states that he has not felt the effect of the work in any way will almost always admit this symptom if he is asked. Next in order usually comes dizziness on stooping over, and more or less persistent headache, or perhaps a loss of appetite, bad taste in the mouth, and sensation of nausea in the morning. Those who are exposed to dust complain of running eyes, sore throat, burning in the nose, and nosebleed. Together with these early symptoms there is often complaint of cramps in the calves of the legs; fatigue disproportioned to the work done, and a feeling of tightness in the chest. Students D and E reported that the earliest symptoms in their cases were gastric and that an increased desire to urinate accompanied these symptoms, but they attributed the frequency of this class of symptoms to the fact that the drinking water in plant 5 was contaminated with TNT waste.

Very early in the course of poisoning the man begins to notice a change of color in the urine. The yellow disappears and is replaced by a clear brown, at first about as dark as weak tea, then increasing till it may be as dark as coffee. This color is quite independent of the substance that gives the Webster reaction. An intense Webster may be present in a urine with normal color and may be absent in a dark brown urine. As the symptoms increase the color of the urine usually deepens to dark brown, but in some serious cases the color changes from brown to red, and in these cases the Webster reaction is likely to be high.

By the time the man feels sick enough to go to the doctor for treatment he presents a very characteristic appearance. He has an expression of weariness and dullness, even drowsiness; his eyes are heavy, with drooping lids and the whites are tinged yellow; his lips and the lining of his mouth are bluish, sometimes intensely so, while his face has a leaden or ashen color, with sometimes a jaundiced tinge. His urine has had a brownish tinge for some days and may now be dark brown or reddish. His complaint may be of intense headache and dizziness and breathlessness, and palpitation of the heart, or he may complain more of cramps in the abdomen, pain in the lumbar region, pains in the limbs, weakness in the knees. In some cases he staggers from dizziness, or falls to the ground in a faint. There do not seem to be two clearly marked varieties of TNT poisoning, the gastric and the cyanotic, such as some English writers have described. In all serious gastric cases there is blueness of the lips and some breathlessness and dizziness, and almost all of the cyanotic cases have gastric symptoms also.

In those plants where the doctors' efforts are limited to treating men who come to them with a complaint of sickness, it often happens that by the time a workman presents himself he is already alarmingly sick. Apparently serious changes may occur without causing enough suffering to make the man aware that he is really sick.

In plant 1 a man came to the dispensary in a very wretched physical condition which must have been present for some time but which had not apparently caused him any particular discomfort. He came then not for TNT sickness but to have an infected cut treated. Student A describes him as being strikingly pale, with a grayish yellow color, lips, ears, and tongue the color of blue ink, the whites of his eyes distinctly yellow. His pulse was 100 and he was short of breath. His urine was almost as dark as tincture of iodine and gave a Webster 5. Yet on questioning him she found that he complained of nothing except breathlessness and a slight headache. He was told to return to have the cut dressed every day, but he did not, and a week later the student went to his house and found that he had been sick in bed for four days and had then gone to New York.

This is a good illustration of the wastefulness of poor medical supervision. Both for the man's own sake and for the sake of preventing unnecessary labor turnover a case of that sort should have been discovered long before it had reached this point. Prompt treatment would have cleared up the condition and the man could have gone back to work.

The workmen themselves gave very strong evidence as to the effect of drinking alcohol even in small quantity. They knew perfectly well that a man working in TNT can not drink without risking a serious sickness. They told many stories of men who, after a couple of drinks of whisky, or perhaps only one drink, turned a deep blue color in the face and fell unconscious to the floor. So notorious was this that the men who wanted to keep at work practically gave up drinking, or if they decided to go on a spree they would deliberately lay off work for two or three days before and two or three days after. They describe the effect as a sudden sharp flushing of the whole body, a rush of blood to the head, blackness before the eyes, and then loss of consciousness. The onlookers described their appearance as that of men in complete collapse, with livid faces and lips of inky blue.

There was not one case of typical toxic jaundice, nor of fatal anemia, the two worst forms of TNT poisoning, in five of these plants during all the time the students were stationed there. There was a rumor as to a fatal case of jaundice in plant 2, but no information could be obtained from the physician employed by the plant, and the case could not be verified. A girl, only 16 years old, who had been working for three months quit when she was already

so deeply jaundiced as to attract the attention of the workmen. She is said to have died two weeks later.

Everything had led us to suppose that there would be some cases of toxic jaundice in these plants, especially after the hot weather of August. During 1916 there were at least 13 deaths from TNT poisoning in American plants, and a far larger number of workers were employed in 1918 than in 1916. There seem to be several explanations for the more fortunate state of things in 1918. One is the improvement in plant sanitation during the two years, and the much greater improvement in medical care. In 1916 there were almost no physicians who knew anything about the prevention of TNT poisoning. No plant had any regular system of hospital care, nor of shifting men to safe jobs. Not many had even a full-time physician in charge. Last summer three of the six plants had excellent medical supervision, which made it impossible for a case of sickness to progress to the point of severe jaundice, for long before that occurred the man would be under proper treatment. Plant 5 had only fair medical supervision, while 1 and 2 had very poor; but in these last two the men were protected by the rule that all sick men should be discharged. Of course, it may be that some of these did develop toxic jaundice later, as is known to have occurred in several instances among discharged men in 1917, but we have no reports of it. Another factor in the situation, and probably a very important one, is the short period of exposure to TNT in the great majority of cases. Out of 376 employees only 57 had worked in TNT more than three months, and British statistics have shown that toxic jaundice usually develops after two to four months' exposure. In two of the plants the proportion of those employed as long as three months was only 4 per cent and 7 per cent, and in all of them the labor turnover was enormous, probably much greater than in 1916.

TNT ITCH.

Practical TNT men say that itch is much more common in summer than in winter, and find an explanation in the perspiration which makes the skin more permeable. Yet the students found that, though the summer was the season for dermatitis, a spell of hot weather did not increase the number of cases as it increased the cases of ordinary TNT poisoning. There were just as many cases in cool summer weather as in hot. It seems probable that the reason why there are more cases of itch in summer is that the men expose the skin more by rolling up their sleeves and leaving the shirt open at the neck or working in low-necked and sleeveless underwear.

Physicians in charge of TNT workers sometimes say that men who have dermatitis never have the other symptoms of TNT poisoning.

This is a mistake. Nine out of 28 cases of itch in plant 6 had fairly serious general symptoms, and so did 4 out of 12 cases in plant 4. But the plant that had the most serious TNT sickness had the least itch.

MISCELLANEOUS POINTS.

Incidentally, several interesting points were brought out by the students' reports. For instance, student C made a comparison of the Webster reaction in departments that were well ventilated and those that were poorly ventilated, with these results:

Pouring fifty-fifty amatol, poor ventilation, fumes and contact; average Webster 2.7.

Transfer house, good ventilation, contact only, no fumes; average Webster 1.4.

Drilling, poor ventilation, much dust and contact; average Webster 2.9.

He also divided the men in this plant into two groups, those who took a bath at the end of every shift, before leaving the plant, and those who did not, comparing the average Webster reaction and the number of symptoms of poisoning in the two groups. It came out as follows:

Bathers, average Webster 2; average symptoms 1.5.

Nonbathers, average Webster 2.8; average symptoms 4.2.

The effect of wearing TNT-soaked gloves has already been mentioned. Since we were justified in believing that underwear soiled with TNT would have the same effect in keeping up a slight continual absorption of TNT, we instructed some of the students to make a note of the kind of overalls worn by the men. Whether or not long-sleeved overalls are used, the important point is, do the overalls protect the worker's clothes, or does he leave the plant carrying TNT dust home with him. That he does in many instances is plain to anyone who visits these factories. Many men wear only the trousers of their overalls, and the shirt they work in is not always changed for another at the end of the day, but is worn under the street clothes. The students were also told to find out whether the men slept in the same shirts, and in that way kept up a continual slight absorption of TNT throughout the 24 hours. They were also told to ask the men whether their underwear came back from the laundry stained pink, for if there is TNT on the underwear the alkali used in washing turns it a pink color. The students report that 40 per cent of the men questioned worked with their undershirts exposed, and 26 per cent admitted that they slept in these same undershirts; 31 per cent said that their underwear showed pink spots when it came back from the laundry.

An attempt was made to find some way of protecting the skin against TNT, for it was easy to see that the ordinary glove does not prevent the hands from becoming deeply stained. The only thing that seemed of any value was a thick coating of talcum powder. If the men would powder their hands thickly before putting on a pair

of clean gloves they could keep their hands almost unstained. Student F picked out a man in the washing and finishing department who had decided symptoms of poisoning and an intense Webster reaction. He persuaded him to use the talcum powder inside his gloves, and the reaction fell from 4 to 1.

Experiments made with various coating films to be applied to the skin suggested by the scientists of the Gas Defense Service did not prove successful, but it is very probable that a film will be devised which can be applied at the beginning of work and washed off at the end. At least that seems to be the most promising field for experimentation at present. Pending the discovery of such a film it would be best to supply clean canvas gloves daily and to persuade the workers to dust talcum thickly on the hands before the gloves are drawn on.¹ The present method of providing leather or rubber or canvas gloves which are used until they are worn out does not seem to afford much protection. In one packing department 11 men were asked to show their hands. Six had worn gloves, 5 had not, but it would have been impossible for anyone to pick out the ones who had from those who had not. Another point worthy of mention is the disadvantage of gloves with gauntlets, for the gauntlet seems to act as a funnel and catch the powder and hold it next the wrist.

The suggestion made by a Canadian technical expert that a 5 per cent sodium-sulphite solution be used to wash the hands at the end of work was carried out in three plants and the men liked it, because it removes the stain better than anything tried up to the present. Student C could not find, however, that the use of this wash had any appreciable effect on the Webster reaction, which shows that it is much more important to keep the man from getting TNT on his hands than it is to help him get rid of it at the end of his day's work.

All these difficulties in protecting workers in TNT from skin contact have been apparent to British inspectors for some time and have led them to conclude that the only way to prevent skin absorption is to prevent skin contact. Dr. T. M. Legge, chief medical inspector of factories, in speaking of the prevention of skin absorption says: "This is to be achieved by substituting mechanical means for hand filling and stemming combined with clean methods of filling, preventing the contamination of the outside of shells." Another British writer, Fleet Surg. R. T. Munday, in explaining why the 5,000 workers in four admiralty factories had had no serious poisoning, laid it chiefly to the freedom from skin contact, not through the wearing of gloves, but through strict cleanliness. "It is to the

¹ Incidental mention may be made of a fairly successful experiment to protect girls against tetryl itch. Zinc-oxide paste was applied to the face and neck and then cornstarch was dusted thickly over it.

strict cleanliness of our workshops and the prevention of soiling of the shells that we must, I think, attribute the chief cause of our immunity." American factories will never get such an immunity so long as the workers handle TNT smeared pails and shell even with gloved hands.

Respirators are seldom worn in our TNT factories, yet there is a general impression that they should be and careful managers are likely to provide at least the usual rubber and sponge respirator for the men engaged in pouring and drilling. According to British experience no good purpose is served by these cumbersome devices. Some British physicians even believe that if dust is caught in the sponge, the moisture and warmth of the breath may serve to volatilize it and it is then absorbed through inspiration. Another objection to the respirator is the way the TNT dust collects around the edge. The pressure of this edge against the face makes the skin perspire and also softens it by rubbing off the surface cells so that it is in an excellent condition to be attacked by the dust. This moist, reddened line is sometimes the starting place for a dermatitis that spreads over the face.

A man in plant 1 came to the dispensary complaining of nausea, of bloody vomiting, headache, dizziness, and abdominal pain. In giving his past history he said that he had been in a hospital for three weeks with a severe dermatitis of the hands and face. The eruption on the face was caused by the irritation of a respirator around the border of which TNT had collected and stuck. He said that his face swelled to twice its natural size. Of course no respirator of this kind holds back gases, and therefore they are of no use over the kettles.

In the early months of the war the preventive measures adopted in British TNT factories were mainly directed against the inhalation of fumes and dust. In order to test out this theory of absorption, experimenters selected a group of six girls and furnished them with elaborate respirators which brought to them air from the outside, but urine examinations showed that so long as the girls were still handling TNT and exposed to skin absorption they continued to excrete as much altered TNT as when working without respirators.

The British do not advise the wearing of any form of respirator, but experience in American factories seems to show that though they can not be expected to prevent systemic poisoning, nor be looked upon as a real protection against TNT sickness, yet some form of shield over mouth and nose does serve to prevent the local irritation from TNT dust and incidentally from tetryl, which is at times very annoying. In one plant where detonators are loaded with TNT and tetryl the men and women wear square pads of cheesecloth with tapes sewed to the four corners, like the familiar influenza mask. They are much pleased with these and say that before they used them they had a

great deal of trouble with running from the nose and eyes, sneezing, sore throat, and sometimes nosebleed. Once they had tried these cheesecloth pads they would not work without them.

SUMMARY.

TNT poisoning takes place chiefly, if not wholly, through the skin, and therefore it is essential that the workers be protected as much as possible from direct contact with it. This can only be done by keeping workbenches, boxes, conveyers, pouring kettles, and all other surfaces free from accumulations of caked TNT or from becoming powdered over with TNT dust; preventing dust, especially amatol dust, from settling on the skin in drilling and in blowing out booster cavities; preventing the splashing of TNT over the outer surfaces of the shell when pouring is carried on; forbidding grainers to test temperature and consistency of the crystallizing TNT by hand; and in general by substituting mechanical devices for handwork.

The poisonousness of different varieties of TNT seems to depend on the readiness with which it can be taken up by the skin. Warm, moist TNT is more dangerous than solid or dry TNT. Amatol is worse than pure TNT, because of its capacity to collect moisture from the atmosphere, and this keeps the surfaces on which it falls constantly damp.

Young people are more susceptible to TNT than fully grown men. They succumb more quickly and apparently suffer more seriously. It is probably poor economy to employ them.

Negroes are probably less susceptible than whites, though evidence on this point is not complete.

Only 36 out of 402 persons under observation were women, and as they were not engaged in the more hazardous occupations it was not possible to determine whether they differ at all from men in their susceptibility to TNT.

Hot, humid weather increases the amount of general TNT poisoning, but not of the skin eruption. This last is more prevalent in summer than in winter, but seems not to be worse in hot summer weather than in cold. Probably its increase in summer is caused by rolled-up sleeves and open collars, which expose more of the skin.

Tests on the urine of some 400 TNT workers show that TNT is rapidly absorbed if exposure is great and that it can be rapidly eliminated if exposure is stopped. Some men can eliminate overnight what has been absorbed during the day; others can get rid of it during Sunday and start on Monday free from TNT in the system.

These tests on the urine of TNT workers show the evil of long hours, for the longer the day the greater the amount absorbed and the less time left in which to get rid of it. A man on an 8-hour shift will absorb only two-thirds as much as one on a 12-hour shift

and will have one-third again as much time to eliminate it. They show the value of the 1 day rest in 7 and the good effect of a holiday lasting 2 or 3 days.

By means of the same tests it was found that the most economical way to treat a worker who has absorbed a large amount of TNT is to put him in a hospital and give him vigorous eliminative treatment. If there is no hospital he should be given a holiday or put on work that is entirely free from TNT. To give him work better than that which he has been doing but still involving contact with TNT is to prolong his recovery.

These tests show that a man may continue to absorb TNT if he goes on wearing old gloves impregnated with it. They also show the danger of leaving the undershirt exposed during work and wearing this shirt home as many men do, some even sleeping in it and thus keeping up the contact with TNT for the 24 hours.

The importance of a full bath at the end of the shift was shown by comparing the urinary reactions of a group of men who regularly bathed every day with a group that did not.

The earliest symptoms of TNT poisoning are short breath on exertion, dizziness on stooping over, headache, fatigue, loss of appetite, bad taste in the mouth, and slight nausea in the morning. It is not possible to tell by the urinary tests whether the man is about to develop symptoms of poisoning, but a reaction of even moderate intensity should lead to temporary shifting from TNT work, since there is every probability that as much absorption as that will sooner or later be beyond the man's powers of elimination and will result in poisoning.

The three important elements in prevention of TNT poisoning in the order of their importance are:

1. Continual, intelligent medical supervision of the workers.
2. Cleanliness of the premises.
3. Cleanliness of the person.

CUTTING COMPOUNDS AS A CAUSE FOR DERMATITIS AND WOUND INFECTION.BY ANNA BAKER YATES.¹

Some of the hazards of industry are conspicuous and carry warning to the workers, others are encountered with little or no realization of their existence by those whose health is imperiled. For the more apparent dangers appropriate safeguards have been worked out and applied, or a degree of caution is exercised which is in itself an effective safeguard.

On the other hand, there are more subtle dangers which are increased by the carelessness of uninformed workers. An example of these is found in the infections which result from exposure to the lubricants and cutting compounds necessary for many operations where the cutting edge of a machine tool is applied to the surface of metals. Ignorance as to the exact cause has made it impossible to remove the source or to give correct instructions for protective measures to those engaged in the work.

NEED FOR INFORMATION.

A large number of both men and women have recently been employed in such operations in the manufacture of munitions of war in this country and abroad. The prevalence of skin infections among them has attracted considerable attention and has brought to light the general scarcity of information as to cause and the need for immediate and accurate knowledge of remedial measures. For these reasons an attempt has been made to assemble all the available information on the subject. The data here presented have been obtained through interviews and correspondence with industrial physicians and with men experienced in matters of public health and factory hygiene. The medical literature of the preceding eight years has been consulted for information regarding possible causes of dermatitis from the use of oils.

COMPOSITION AND USE OF CUTTING COMPOUNDS.

The composition of commercial cutting compounds varies. For the most part, they are a combination of animal oils, mineral oils and fatty acids, mixed with water to form an emulsion. In some cases emulsification is assisted by the addition of a small amount of alkali. This mixture is usually piped to the various machines from a central reservoir. It pours over the metal at the point of operation, runs into a drain beneath the machine, and is finally returned to the central reservoir. The compound acts as a cooling agent and also facilitates the cutting of the metal.

¹ Special investigator for the women's branch, Industrial Service Section, Chicago District Ordnance Office, War Department.

TYPES OF INFECTIONS.

The dermatitis which occurs among those working with cutting compounds consists in a series of boils or multiple abscesses, beginning on the back of the hands, often between the fingers, and spreading over the forearms.

Considerable trouble is also encountered with wound infection, the merest scratch oftentimes developing into a suppurating mass.

In an Ohio factory where there were many cases of infections, cultures were made from a large number of the furuncles and infected wounds. In every case, Dr. Marvin Shie reports, bacteriological examination showed the presence of staphylococcus aureus, a pus-forming organism.¹

CAUSES OF INFECTION.

Cutting compound as a carrier of bacteria.—For several reasons the cutting compound itself was regarded as a possible cause of infection. It is used over and over again. It is repeatedly contaminated with the sputum of the employees and with all kinds of waste material which is thrown into it. Furthermore, it frequently happens that employees suffering from boils and infected wounds which are improperly dressed or not dressed at all continue at work, with the result that the cutting mixture is polluted with the discharge from the infected sores. These insanitary practices made it seem probable that the oil might be the source of infection since the operator's hands and arms are constantly wet with the cutting fluid and his clothes often saturated.

It has been reported that cultures made from the cutting mixture showed the presence of staphylococcus aureus.¹ It seems unlikely, however, that the oil serves as more than a mechanical vehicle for these organisms. Attempts to grow staphylococcus aureus in cutting mixture have met with rather indifferent success. The results indicate that while not bactericidal, still such oils are incapable of supporting more than a very meager growth.²

Irritant action of compound on skin.—A more probable cause of the trouble, and one which has been recognized by skin specialists for a number of years, lies in the irritant action of the oil upon the skin. In the Annual Report of the Chief Inspector of Factories and Workshops of Great Britain, for 1910, Dr. Collis says:

Occupational dermatitis is known to be caused by a variety of materials, but one group, containing such different substances as olive oil, light mineral oil, turpentine, olein emulsions (soapy water), caustic alkalis and phenol derivatives, appear to have one property in common, viz, that of dissolving or paralyzing the secretion of the sebaceous glands, so leaving the cuticle dry and liable to crack when microbic infection occurs and gives rise to the inflammatory condition known as dermatitis. This

¹ M. D. Shie: "Wound infection among lathe workers." *Journal American Medical Association*, LXIX (pp. 1927-1930).

² R. P. Albaugh: "Cause and prevention of furunculosis and wound infections among machinists." *Ohio Public Health Journal*, Vol. IX, No. 4 (April, 1918).

condition occurs on the exposed forearms and on the back of the hands, but not on the palms of the hands, the cuticle of which has no sebaceous glands.

Further evidence supporting this view is as follows:

Skin showing impaired secretory functions is more liable to develop dermatosis. The normal sebaceous secretion serves to keep it in a pliable state and it also affords protection. A deficiency in secretion is liable to result in lowered tone and lowered resistance to various chemical and mineral irritants as well as to atmospheric and thermal conditions.¹

In addition to its action as a chemical irritant, the oil may act as a mechanical irritant. Myriads of small particles of cut metal are washed away from the work and these are undoubtedly responsible for many small cuts and abrasions which subsequently become infected.

Lack of personal cleanliness.—A third cause of dermatitis is lack of personal cleanliness. Working day after day in this dirty, greasy material without thoroughly cleansing the skin at least once a day, results in the formation of small plugs of dirt and grease at the base of the hair follicles and sweat ducts. The normal excretory function of the skin is impaired and these plugs serve as a lodging place for bacteria. Dr. H. H. Hazen makes the following statement with regard to this:

Furuncles due directly to staphylococci are often incited by work that stops the pores of the skin, thus preventing drainage. All who work in grease * * * or where there is mineral or metallic dust are very liable to small boils.²

It is also the opinion of the British Health of Munition Workers Committee that—

The occurrence of pustules and boils is probably due to sebaceous glands and hair follicles becoming blocked and infected with oily grime rubbed in by soiled overalls.³

A specific instance of this was reported to the writer by a physician in a large manufacturing establishment. An employee suffering from an extremely severe case of multiple boils was admitted to the hospital. His occupation was cleaning out the oil pans beneath the machines. He was constantly saturated with the oil. His clothing and his person were filthy. An autogenous vaccine was made and he was treated with this. A cure was effected. A year later this employee appeared at the hospital again with a similar condition. The treatment this time consisted in an enforced daily bath (which was occasionally Turkish), clean clothes, and a thorough elimination of waste from the excretory organs. The boils disappeared as before.

Individual susceptibility.—Experience shows that some persons are more susceptible to this sort of skin trouble than others; that in spite

¹ H. E. Alderson, *Journal American Medical Association* (1918), vol. 70, pp. 71-74.

² H. H. Hazen, *Journal of Cutaneous Diseases*, 32 (1914), 487-498.

³ British Health of Munition Workers Committee, Memorandum No. 8.

of all reasonable precautions dermatitis develops. Such persons should be transferred to other work if possible.

PREVENTIVE MEASURES.

As preventive measures two things are to be urged above all others: First, the cutting mixture should be kept clean, and second, personal cleanliness of the worker should be required.

The cutting mixture may be kept clean by (1) effective prohibition of its use as a receptacle for waste material and of the practice of expectorating into it; (2) frequent filtering to remove dirt and metal particles; (3) requiring that all boils and infected wounds shall be dressed in such a way as to prevent contamination of the mixture by any discharge from the sores.

Personal cleanliness involves (1) washing thoroughly with soap and hot running water every part of the body exposed to constant contact with the cutting compound; this should be done at noon and again at night; (2) changing overalls at least twice a week.

The conclusions reached as a result of experience in England are that "clean overalls, and the provision and use of suitable washing accommodation with hot water laid on, go far to prevent cases of pustules and boils."¹ Good washing conveniences especially are considered a "powerful preventive."

It is suggested that an ointment be used after washing if the skin tends to become dry and cracked. For this purpose lanolin and petroleum may be used, or vaseline.

Other preventive measures have been tried. Elaborate systems of sterilization of the compound by heat have been suggested and attempts have been made to find a chemical disinfectant which is an efficient germicide, possessing at the same time none of the properties which would render its use objectionable because of its action on the metal or because of its effect on the worker. Both of these expedients have certain value, but the old adage that "an ounce of prevention is worth a pound of cure" holds good here. If every effort is made to keep the cutting mixture free from contamination, the chance of infection from this source should be no greater than from any other substance with which the worker might come in contact. The natural haunts of the staphylococcus aureus are legion. They may be found on skin in normal condition, and, in fact, on nearly any article which one might pick up. Therefore, the most essential thing is to keep the skin in such condition that it may not offer portals of entry to the ever-present bacteria.

¹ British Health of Munition Workers Committee, Memorandum No. 8.

SUMMARY AND CONCLUSION.

1. Boils, furuncles, and infection of wounds are encountered among operators of machines which require the use of cutting compound.

2. These boils and infections are probably due to the presence of staphylococcus aureus.

3. It is believed that infection follows lessened resistance of the skin due to the irritant action of the oil and to lack of personal cleanliness.

4. Preventive measures include keeping the cutting mixture free from contamination, thorough cleansing of the hands and forearms at least twice a day, and a change of overalls twice a week.

In conclusion it may be said that the problem of infection from cutting compounds is far from being completely solved. Further investigation, in factories where this sort of trouble is reported, and careful experimental work are greatly needed.

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¹ Since the above bibliography was made the Department of Labor has received a bulletin (No.2) published by the Advisory Council of the Department of Scientific and Industrial Research of Great Britain, entitled "Memorandum on cutting lubricants and cooling liquids, and on skin diseases produced by lubricants." London, 1918. 9 pp. This memorandum is an interesting and valuable contribution to the subject.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

MASSACHUSETTS WORKMEN'S COMPENSATION INSURANCE REVISED EXPERIENCE RATING PLAN.¹

A new plan, effective January 1, 1919, for the application of individual experience in adjusting the rate on a workmen's compensation insurance policy, has been prepared by the insurance companies and submitted to the insurance commissioner of Massachusetts for his approval. It provides that for any risk which pays a premium of \$300 or over for 21 months, equivalent to an annual premium of about \$175, the exposure furnished by the risk, compared with the total exposure of the class of industry to which the risk is assigned, will be taken into account as one factor in determining the premium rate. A large risk which furnishes a large exposure and pays an annual premium of several thousand dollars will secure a premium rate based in a large measure upon its own experience. For the small plant the increase over the regular rate for a bad experience, and the maximum credit for a good experience, will be much less than in the case of the large risk. The maximum credit for a small plant which has had no accidents is not as large as under the plan now in force, but this is offset by the fact that the increased charge in rate is much less in the case of heavy losses. Under the new plan the small risk is not heavily burdened even though the losses experienced by it may cost the insurance company many times the amount of the premium.

Under the new plan the size of the risk determines how much weight will be given to the risk's own experience in fixing the premium rate. The effect which the new plan will have on the rate of an employer is directly in proportion to the volume of experience which this employer contributes to the making of the rate for the industrial class to which he had been assigned by the nature of his business. If the individual risk experience is very small, the new experience rating plan will affect the rate of that risk only in a very small way. If the individual risk experience is large, the new plan will affect the rate for that risk to a proportionately greater extent. This sliding scale treatment is automatic and the effect of its operation will be that the nearer the risk comes to being large enough to furnish an insurance average, the more will its rate be based upon its own experience.

¹ Data furnished this bureau by the Massachusetts insurance commissioner.

The new plan provides that only the experience of the last 45 months shall be used in determining the rate, thus discarding the experience under the first few years of the operation of the Massachusetts workmen's compensation act when conditions were different from those now prevailing. A risk must have been insured at least 21 consecutive months immediately preceding the establishment of the rate to qualify under the new plan.

It will be particularly pleasing to employers, who desire insurance against the heaviest losses, that the large compensation claims occasioned by fatal and permanent disability accidents will have less bearing upon the determination of the premium rate for an individual risk than do the accident cases of the ordinary type. If such serious accidents occur, the new plan will increase the premium rate for the individual employer only slightly. Men familiar with safety work believe that many injuries, particularly those of the ordinary kind, can be prevented if employers actively engage in accident prevention work. It is the experience with ordinary accidents that will have the greater weight in determining the credits or charges under the new plan. These can be kept down by the cooperation and determined effort of employer and employees and thus a credit be obtained which is not likely to be neutralized in the case of an individual employer by claims for deaths and permanent total disability.

A physical rating schedule, which applies particularly to manufacturing plants and which provides for credits and charges dependent upon whether the plants are in good physical condition, is in force and has an important effect upon the rate. A well-guarded manufacturing plant which has complied with the safety standards of the official physical rating schedule will receive a reduction from the manual or classification rate on that account, and, if the experience of the risk has been unusually good, will receive a further reduction.

The experience rating plan which has been in force in Massachusetts since 1916 is based largely upon the number of accidents. Under it an employer who has had accidents causing death or permanent total disability has had to pay a rate considerably above the regular rate, in some cases the increase being a maximum charge of 30 per cent. It has been held by some that it is unfair to make employers pay such largely increased rates, as the serious accidents causing them may have been due to circumstances over which they had no control. The companies believe that employers will be better satisfied with an experience rating plan which provides that death and permanent total disability cases shall have a minor bearing upon the assured's rate, leaving the adjustment thereof to be influenced principally by the cost of the ordinary every-day accidents which are largely preventable, and which also provides that the possible charges and credits shall be graded on the basis of the experience that the risk

furnishes in establishing the rate for the class to which it belongs. A large risk will receive a rate modification based mostly upon its own previous loss experience and the small risk will receive an adjusted rate closer to the average rate of its class. A plan based upon the same general principles has been in operation in New York and other States for some months and is reported to be working satisfactorily.

WORKMEN'S COMPENSATION INSURANCE IN MASSACHUSETTS AND NEW YORK.

The reports of the State insurance commissioners of Massachusetts and New York give some account of the growth of compensation insurance in the respective States, some points of which are here summarized.

MASSACHUSETTS.¹

The letter of transmittal introducing this volume of the report notes the enactment of a new law on the subject of the group insurance of employees, war insurance of the United States Government, and progress in workmen's compensation. Power to control workmen's compensation insurance rates is requested, also the enactment of a law making the employer liable when his insurance carrier fails to make payments.

The expense ratio of insurance carriers is shown for Massachusetts compensation business only, the ratios for stock and mutual companies being shown separately. The average for stock companies is 37.17 per cent of the premium collected, while for mutual companies it is but 13.8 per cent. Stock companies limit the commission of agents to 17.5 per cent as a maximum, which exceeds all expenses of the mutual companies.

On policies issued in 1916 the losses incurred were, for stock companies, \$2,854,463; for mutual companies, \$1,469,029. Per cent of earned premiums, for stock companies, 65; for mutual companies, 50. Loss cost per \$100 pay roll, stock companies, \$0.62; mutual, \$0.50.

NEW YORK.²

The data reproduced in the portion of the report of the State superintendent of insurance covers the experience of three and one-half years under the compensation law of the State, from July 1, 1914, to December 31, 1917, with separate statements for the business of 1917.

The following table summarizes loss and expense ratios for the periods indicated:

LOSS AND EXPENSE RATIOS, 1914-1917 AND 1917.

	Loss ratios.		Expense ratios.	
	1914-1917	1917	1914-1917	1917
All carriers.....	64.77	61.07	32.88	31.89
Nonparticipating.....	64.22	59.78	38.98	37.85
Participating.....	68.52	64.59	13.53	15.06

Under participating carriers are included all purely mutual companies, the State fund, and one stock corporation who writes business on the participating plan. The report indicates adequate loss reserves on the part of domestic mutuals and the State fund, under the terms of the existing law.

¹ Insurance commissioner. Sixty-third annual report, Jan. 1, 1918. Part II. Boston, 1918. lxxv, 327, 349a pp.

² Superintendent of insurance. Table IX. Fifty-ninth annual report, Part III. Albany, 1918. 29 pp.

The loss ratios for 1917 represent only an average of about six months' exposure, so that their significance is limited to a comparison between the classes of carriers, and final conclusions as to the total losses for the year can not be predicated on the data given.

Premiums, losses, and expenses are shown for the two classes of carriers and for each company separately. During the three and one-half years covered by the report, all carriers earned premiums amounting to \$56,553,581, of which \$43,013,806, or 76 per cent, was by nonparticipating or stock companies; and \$13,539,775, or 24 per cent, was by participating companies. The losses incurred during the same period amounted in all to \$36,630,999, or 64.77 per cent of the earned premium. The loss ratios of the two classes of carriers hardly differ, but the expense ratios show a decided variation, being 38.98 per cent for nonparticipating companies and 13.53 per cent for participating companies. The expenses of the State fund were paid out of the State treasury until June 30, 1916, when they became a charge on the premiums. For the year 1917 the fund shows an expense ratio of 8.54 per cent as against 15.66 per cent for all participating companies, and 37.85 per cent for nonparticipating companies.

WORKMEN'S COMPENSATION EXPERIENCE IN MANITOBA IN 1917.

A review of the first 10 months' operation of the Manitoba workmen's compensation act, covering the period from March 1, 1917, to December 31, 1917, appears in a pamphlet recently issued by the workmen's compensation board.¹ The report also includes a statement covering the organization work from September 1, 1916, to March 1, 1917, which was the date the provisions of the act respecting payment of compensation became effective.

The report announces that of 4,310 employers to whom notices requesting statements of employees' earnings were sent, 2,210 filed policies, while of the remainder a large number had gone out of business or were not at that time employing workmen. Many made no response to the notices of the board. These statements cover the calendar year 1916 and an estimate of the probable earnings of employees for 1917. The policies issued by insurance companies were based on such estimates, and provision was made for adjustment of the premiums when actual earnings should be ascertained at the end of the year. Thirteen insurance companies made application to the board to write insurance under the act (3 later withdrew), and 10 employers were granted permission to carry their own insurance.

The total policy premiums recorded from employers whose insurance is carried by licensed companies is given in the report as \$189,646.40, and the total chargeable premiums recorded by employers carrying their own insurance is given as \$249,230.15, making a total of \$438,876.55. The contributions received from the assured by the board in respect of the above premiums, under section 77, being 7.3 per cent of the same, totaled \$32,251.44.

¹ Report for 1917 of the Workmen's Compensation Board, Manitoba. Including also report for 1916 covering organization. [Winnipeg, 1918.] 10 pp.

As to the working of the act, the report says that the act "has worked satisfactorily to all concerned; the benefits of this new legislation to both workmen and employers are recognized and appreciated." During the 10 months' operation of the act 2,404 notices of accident were filed with the board. Of this number 1,016 (42.3 per cent) claims were finally disposed of, including 964 (94.9 per cent) for temporary total and temporary partial disability, 29 (2.9 per cent) for permanent partial disability, 12 (1.2 per cent) for fatal accidents, and 11 (1.1 per cent) rejections. Eighty-one claims were partially disposed of; 997 were claims classed as noncompensable; and 310 are "claims pending or in assembly." The report explains that the noncompensable accidents include—

(a) Accidents reported where the workman has not been disabled from earning full wages for the period of six consecutive working days (sec. 3 (1) (a)).

(b) Accidents reported where the accident occurred outside the Province of Manitoba, and the workman, although a resident of this Province and entitled to compensation under the provisions of the act, ultimately elected to resort to the remedy provided in the Province in which the accident took place (secs. 5 and 6).

(c) Accidents reported during the course of employment, which, on investigation, proved to be incidental to an industry not named in schedule I of part I of the act.

The claims pending or in assembly cover "cases where the accident has been reported, but the forms necessary to complete the case have not yet been submitted to the board; also claims which have been before the board for consideration, but the payment of compensation has been deferred pending further investigation."

During the 10 months awards amounting to \$144,647.55 were made, \$67,719.08 being for disability compensation to workmen, and medical, hospital, nursing, and burial expenses, and \$76,928.47 being reserve for payment of pensions and permanent partial disability awards.

The report states that the total cost of administration of the act for the 16 months ending December 31, 1917, was \$40,229.60, or 7.09 per cent of the total estimated premiums recorded, "and present indications are that the contributions payable on excess premiums for 1917 will still further reduce this percentage."

PROPOSED BRITISH SCHEME FOR NATIONAL ENDOWMENT OF MOTHERHOOD.¹

In October, 1917, a committee² was formed in Great Britain "to discuss the establishment of a national scheme of family endowment on the lines of separation allowances, which have greatly benefited the country during the war by distributing the means of subsistence

¹ Equal pay and the family: A proposal for the national endowment of motherhood. [London, 1918.]

² The membership of the committee was as follows: K. D. Courtney, H. N. Brailsford, Eleanor F. Rathbone, A. Maude Royden, Mary Stocks, Elinor Burns, Emile Burns.

according to the number of persons in the family concerned." In September, 1918, the committee issued a report recommending a scheme of State endowment for mothers and small children. Hitherto the theory has been that the rising generation is best provided for by regarding the man as the representative of the family and paying him a wage adjusted in some degree to the needs of a family. To this system, the committee points out, there are serious objections:

1. It complicates the industrial situation greatly. Women have proved themselves so useful in the industrial world that employers will not readily relinquish them. Unless women insist upon the same wages as men, they will inevitably be used to undercut men and to lower the standard of living for all workers. Yet when they demand the same wages the objection is at once raised that a man has a family to support, while a woman has not. Of course, a man is not always supporting a family and a woman often is, but there is sufficient plausibility in the objection to make the claim for equal wages a difficult one to maintain.

2. It handicaps the married man as compared with the single man and the father as compared with the childless. A man who does not marry or who, marrying, has no children is at once more comfortable and more independent than the father of three, four, or more children. If it is desirable to maintain the race, it is bad policy to penalize parenthood.

3. The provision made has little or no relation to the children's needs. What a child may receive in the way of nourishment and healthful surroundings depends not on what health demands, but on the amount of the father's wages and the number of other children in the family. A period of unemployment for the father may mean the permanent impairment of the child's strength; a large family may mean that every child is undernourished and devitalized. There is a point beyond which a mother's intelligence and devotion can not take the place of money.

4. It ignores altogether the mother's contribution to the family welfare and her services to the State. If a woman goes out to take care of another woman's children, she receives food, lodging, and wages; if she stays at home to take care of her own, what she will receive depends not on the worth of her services, but on her husband's earning capacity and steadiness of employment. A failure in either may not only cut off her own share, but may render it impossible for her to do her work of child caring properly.

A system of endowment of mothers and allowances for the support of small children would do much, the committee believes, to remove these various difficulties. The amount need not be large enough to provide for complete support.

The ideal amount would be the difference between (a) the cost of maintaining a family—husband, wife, and children—which will vary with the number of children; and (b) the cost of living to a man who had no children. The difference would represent the really extra expenditure involved in having children. It seems probable that the lowest amount which would represent this difference in a home whose standard of living did not fall below the subsistence level is 12s. 6d. [\$3.04] a week for the mother and 5s. [\$1.22] for the first child, with 3s. 6d. [85 cents] for the second and subsequent children.

The payment to the mother should begin eight weeks before her first confinement and continue as long as she has a child under five years old. The payments on account of the children should theoretically continue until the child is old enough to become a wage earner, but since the State assumes some part of his support as soon as he is old enough to enter school, school age—five years—is at first fixed as the limit of aid. Payments should be made direct to the mother and responsibility for administering them should be fixed on her. Elaborate calculations are given as to the cost of the scheme, the conclusion being that on the basis of the population and the birth rate of 1911 it would require an annual expenditure of approximately £144,000,000 (\$700,776,000).

Considerable attention is paid to the objections which are apt to be urged against the scheme. Of these the most important seem to be its probable effect on wages, on the family, and on the birth rate. As to the first the committee believes that there is not much danger that the effect will be unfavorable. Undoubtedly employers would try to use the scheme as a lever for forcing down wages, and in trades where organization is weak they might have some success, so that it would be well if the plan for a national minimum wage could be established at the same time as the endowment scheme. But such an effect would probably be small and temporary, because wages are in the long run determined by a complex of circumstances, among which the worker's productivity, his power of bargaining, and the number of his competitors are prominent. The efficiency of the workers in the mass would very shortly be improved by the better living conditions made possible by this scheme, and their bargaining power would not be impaired by the knowledge that a strike would not mean absolute destitution for the family. On the contrary, the sense of security given by the endowment plan would strengthen the general confidence of the workers, especially in the lower-paid trades, and thereby increase their determination and their ability to improve their situation.

A regular and more adequate family income would create a better background for the men now in those trades; their organization would grow stronger, their efforts would be more sustained; and their view of life would change from passive acquiescence in a state of things which kept themselves and their families below the level of even physiological subsistence to active determination to better their condition in ways they had not dreamt of before.

As to the amount of competition the worker has to fear after the war, the committee declines to express an opinion, but it points out that this scheme would at once take mothers of young children out of industry and would put competition between unmarried or childless women and men on a fairer basis. The employer would no longer have a plausible excuse for paying a woman less than a man for a given piece of work, and the women, with some chance of obtaining the equal wage they have demanded, could no longer be utilized as wage cutters.

The probable effect of the scheme upon the family relations is dismissed rather briefly. The committee does not believe that domestic harmony can be secured only through the complete economic dependence of the wife.

A direct payment to the mother for her services to the community in rearing children will make it possible for marriage to be a real partnership, in which the family income is derived from the joint earnings of husband and wife. We believe that a partnership, in which both parties contribute, is a finer conception of marriage relations than one which is based on the financial dependence of the wife.

The effect on the birth rate, the committee believes, would be good. It points out that among the least responsible class in the community the birth rate already closely approaches its physiological limits, so that there is little reason to fear that the rate in this class will be increased by the endowment plan. On the other hand, there is much reason to believe that prudent and thrifty working people are limiting their families on economic grounds, and the endowment, by removing the financial difficulties in the way of a good-sized family, would very probably increase the birth rate in the very class which it is most desirable to perpetuate.

Careful consideration is given to the method of administering the scheme. A chapter is devoted to considering the treatment under the scheme of the unmarried mother, and another is given to a discussion of whether the endowment should be, as the majority of the committee believed, equal for all families or graded in accordance with the family income.

PROPOSED CHANGES IN THE GERMAN INVALIDITY AND SURVIVORS' INSURANCE SYSTEM.

Representatives of the German State invalidity insurance institutes met at a conference in Berlin on May 13 and 14, 1918, to propose and discuss amendments of that part of the workmen's insurance code which relates to invalidity and survivor's insurance. The *Soziale Praxis* in a special article reports on the proceedings of the conference as follows:¹

Occasion for the conference in Berlin was given by the intention of the Imperial Government to submit to the Reichstag a bill aiming at

¹ *Soziale Praxis und Archiv für Volkswohlfahrt*. Ein Ausbau der Invaliden- und Hinterbliebenenversicherung, by Geh. Oberregierungsrat Düttman. Vol. 27, Nos. 48 and 49. Berlin, Aug. 29 and Sept. 5, 1918.

the incorporation in the workmen's insurance code of the pension increases which had been temporarily provided for the current year by decree of the Federal Council of January 3, 1918; the increasing of the insurance contributions in order to provide funds for the payment of the increased pensions was also to be considered. The representative of the Imperial Economic Department (*Reichswirtschaftsamt*) informed the conference that this bill could not be submitted to the Reichstag before October and that it would be possible to include in it such amendments of the law as are generally agreed upon as required, while more far-reaching amendments must be reserved for a later reform. He also stated that the Government could not agree to the demands of the insurance carriers that the increased costs of insurance be borne by the Empire.

Although acknowledging that the reform of the invalidity and survivor's insurance system on such large lines as demanded by it would require enormous funds and could not be realized in the near future, the conference took a point of view essentially dissenting from that of the Government. It maintained that not only should preliminary work for such a reform be initiated without delay, but that an agreement between the Government and the Reichstag as to the aims of this reform should be arrived at before proceeding to the enactment of the most urgent amendments of the insurance code.

Accordingly the conference restricted its program to the determination of the principal aims of the proposed reform and of the means to be adopted to this end. The conference also proposed a large number of amendments of individual provisions of the present law, of which some are of fundamental importance while others merely have in view the simplifying of the invalidity and survivors' insurance scheme.

The following principles which demand that special consideration should be given to policies relating to the increase of the population were unanimously adopted:

1. The granting of extra allowances to a large part of the pensioners of the workmen's insurance system has become necessary. The pension bonuses introduced by the decree of the Federal Council of January 3, 1918, are not adequate.

2. In place of these bonuses a general increase of the pensions on a percentage basis, without regard to the necessitous condition of the individual pensioners, should be granted.

3. The insurance institutes maintain their legal point of view that the high-cost-of-living allowances to pensioners should be borne exclusively by the Empire and expect that the Federal Governments will conform to this point of view shared unanimously by the Reichstag. Should this expectation fail to realize and the insurance institutes be unjustly burdened with the payment of these bonuses, the institutes must demand that their solvency be safeguarded by an increase of the contributions and of the imperial subsidy.

4. The increase of the pensions to be introduced now can not be abolished in the future. It can only be properly effected if the lines of development of the invalidity and survivors' insurance are clearly thought out beforehand. In this development the promotion of a sound policy with respect to the increase of the population should be one of the principal aims.

5. Payment of children's allowances to insured persons with three or more children under 15 years of age, in connection with a corresponding increase of the additions to pensions on account of children and of the orphan pensions, would be a suitable means of alleviating distress in the case of large families and, at the same time, would do away with one of the causes of the decreasing birth rate.

6. In addition, the creation of an efficient housing scheme for the benefit of large families, particularly for city dwellers, is imperative. Such schemes should be subsidized by the Empire and State and be taken over by the municipalities with the cooperation of employers.

7. The extension of the obligation to insure and the increase of the minimum number of contributions of voluntarily insured persons must be resorted to for the purpose of enlarging the scheme to embrace all persons needing insurance on the one hand and, on the other, to assure the efficiency of the insurance institutes.

8. In the new determination of the contributions which the increase of the insurance benefits has made necessary the present difficult economic situation should be taken into account and the present generation be relieved at the expense of the next generation.

9. The former salaried employees' insurance, together with the abolition of voluntary supplementary insurance, shall be incorporated with the general invalidity insurance in the form of compulsory supplementary insurance. It goes without saying that the contributions already accumulated and those to be collected in the future shall be applied solely to the advantage of the insured salaried employees.

The following reasons were adduced in support of the principles adopted by the conference:

The present high cost of living makes necessary an increase in the existing pensions, and any later abolition of this increase would seem to be impossible. The method of increasing the pensions introduced by the Federal decree of January 3, 1918, must not remain in effect beyond the end of the current year, for it provides a flat increase without consideration of the needs and former contributions of the pensioners, and moreover makes no special provision for orphans.

In view of the large number of pensioners affected, probably 1,500,000 in round numbers, the proposed increase of the pensions can not be made dependent on an investigation of the personal conditions of each individual pensioner such as the Federal decree of January 17, 1918, provides for in the case of accident insurance pensioners, but must be computed on the basis of a fixed percentage of the pension hitherto received.

Above all, those invalidity pensions must be liberally increased which go to support children under 15 years of age; orphans, at least 300,000 in number, who are not in receipt of double pensions as soldiers' orphans, must also be provided for.

The measures now proposed must prepare the way for future development, and any temporary increase of the pensions undertaken as a transition measure must not endanger the future development of the invalidity insurance system. The amount which the Empire can contribute to the covering of the costs of the insurance must be made dependent on the future development of economic conditions,

and primarily on the conditions under which a general peace is to be concluded.

The guiding principle in the development of the invalidity and survivors' insurance must be the raising of the birth rate. The sudden fall of the birth rate since 1901 can be in part traced to the economic difficulties of families with a large number of children. In so far as the fall of the birth rate is due to this cause it can be effectively combated by the payment of children's pensions to insured persons with three or more children under 15 years of age. If, in addition, the old-age pension which, as a matter of fact, is a pension for semi-invalidity, should no longer be computed on a different basis from the invalidity pension, but in the amount of one-half of the latter, there would be created a simplified and easily comprehensible system of computing pensions.

Effective combating of the decrease of the birth rate also requires extensive housing work for families with a large number of children, particularly in large cities. The amount of 500,000,000 marks (\$119,000,000) appropriated by the Reichstag on May 10 for the erection of small dwellings will probably have to be granted every year for a period of 10 years, if satisfactory housing conditions are to be achieved.

Smaller grants for children than those demanded by the conference would be ineffective, because the indirect taxes, especially the taxes on consumption, the increase of which is bound to come, have the effect of head taxes on large families. This additional burdening of the great majority of the insured persons can not be offset by exemption from direct taxes, because the direct taxes paid by most of them amount to much less than the indirect taxes.

In order that these heavy burdens may be borne more easily the solvency and efficiency of the insurance institutes must be assured by the introduction of higher wage classes for insured persons with annual earnings in excess of 1,500 marks (\$357), and also by the extension of the obligation to insure to young persons 15 years of age, home workers, men with businesses with annual returns not in excess of 300 times the usual local wages, and salaried employees with annual earnings of 2,000 to 5,000 marks (\$476 to \$1,190). Thus the number of regular contributors to the insurance system will be increased, and the number of those who can exploit the system by arbitrary limitation of their contributions will be lessened, while simultaneously the number of persons in need of insurance will be increased also.

Similar considerations must also lead to the demand that the salaried employees' insurance, with its accumulated large capital, which will continue to grow for a long time to come, must be discontinued as a special institution and be incorporated in the general invalidity insurance. While the exceedingly expensive salaried employees' insurance in its present form could be tolerated as a luxury as long as favorable economic conditions prevailed, this is no longer possible at present, when great economy in all spheres has become an imperative duty. It seems, moreover, not permissible to permit this insurance system to accumulate and hoard a billion marks during the next five years, of which not even the interest would be paid out in benefits to the insured.

HOUSING.

SANITARY ASPECTS OF COMPANY HOUSING.¹

BY LEIFUR MAGNUSSON.

INTRODUCTION.

In the course of a recent investigation into the problems of company housing, the Bureau of Labor Statistics incidentally secured some information bearing on the sanitary aspects of housing as conducted by over 200 employers in the United States. The data refer to the year 1916, immediately before the entry of the United States into the war, and cover, therefore, conditions prevailing in more or less normal times. The inquiry included 423 establishments represented by 236 company towns or housing groups. The employees of these establishments numbered 466,991, of whom 160,645, or 34.4 per cent, were found in company houses.

Those features of the survey which have any bearing upon problems of sanitation and health in relation to housing may be classified under the following heads:

- (1) Care of streets, thoroughfares, and premises.
- (2) Provision of water and sewer systems in the community and modern sanitary conveniences in houses.
- (3) Provision of garbage collection, and sanitary regulations in the community.
- (4) Overcrowding.

CARE OF STREETS, THOROUGHFARES, AND PREMISES.

Maintenance and upkeep is the most important problem connected with company housing. Employers are generally agreed on this point. Good company housing developments have been found to be marred greatly by failure to maintain the houses and their surroundings properly. On the other hand, relatively poor housing conditions are redeemed to an extent by a good system of upkeep.

¹ What constitutes desirable standards in the sanitation of rural workmen's areas is set forth in a recent number of the Public Health Reports: Sanitation of Rural Workmen's Areas with Special Reference to Housing. (U. S. Public Health Service, Public Health Reports, vol. 33, No. 36, Sept. 6, 1918, pp. 1477-1507). Cf. also: Agricultural Camp Housing, MONTHLY REVIEW of the United States Bureau of Labor Statistics, May, 1918, pp. 277-287; Sanitary-Privy System for Unsewered Towns and Villages, by L. L. Lumsden. (U. S. Public Health Service, Public Health Bulletin No. 89, Aug., 1917, 28 pp.).

Probably the principal cause of defective maintenance in company housing is the tying up of the work with plant operation and repair. It should not be inferred that it is essential to organize at all times a special housing department, but the segregation of the work from the operative part of the enterprise should go as far as the engaging of an individual solely responsible for housing conditions. Such was the plan of organization for some of the large coal mining companies in the bituminous region of Pennsylvania and under it a very careful system of inspection of sanitary conditions in and around the miner's houses was maintained.

Another defect in company housing has been the failure of the employing company to promulgate and enforce sanitary regulations and restrictions. There may be instanced the lack of restriction on the keeping of domestic animals, at least to the extent of preventing their roaming at large. Besides it does not appear that a sufficient attempt has been made to insist on the keeping of sightly lawns and fenced-in premises. This does not apply however to the houses and premises of the higher paid, skilled workmen or staff employees, where grassed courts or yards very generally prevail.

While very many companies had rules requiring a tenant to leave a company house if he failed to keep his premises in a sightly condition, enforcement of these rules depended somewhat upon the labor market. Thus in a time of shortage of labor the employer would overlook this rule very greatly in order to keep his labor at the plant. As a consequence the rule was more often violated than observed.

Broadly speaking, the condition of yards and houses in company towns differs so markedly in the same locality and among the same class of employees that it seems reasonable to conclude that the differences in care and upkeep are due to the attention given the matter by the landlord, i. e., the company. Adjacent mining towns, for instance, in the Pennsylvania soft coal region, each owned by a different company, differ very greatly in matters of maintenance. Generally speaking, where the company observes system in keeping streets and alleys clean, and in repairing houses, and has a man or corps of men regularly employed to do that work, yards, as a whole, are in better condition of upkeep. A factor in the case is the provision by the employer of rubbish and garbage cans for the use of the tenants. It is the experience of the general superintendent of one of the largest coal and coke companies in western Pennsylvania that once the company provides an adequate house and sightly premises, the employees, and more particularly the wives of the employees, take a new interest in the house and its maintenance. Continuance of the improvements is desired, even demanded. A

standard of comfort and decency of surroundings has been created and a desire for its continuance persists. After all, the employer is in an advantageous position to secure and maintain that standard of comfort and decency in surroundings of his tenants because his regulations in that respect are backed by the authority to discharge from employment. In spite of that fact, however, there is at times a tendency on the part of the employer to connive at unsightly premises and to be careless in regard to enforcing rules whenever there is a shortage of, or difficulty in securing, labor.

On the side of the employee, it may be noted, there may be a reluctance to make any demands for proper maintenance and improvements in the house, particularly when labor is plentiful and competition for jobs is keen, because of the inevitable control which the employer has over the employee by reason of owning the house and holding over him the threat of eviction.

PROVISION OF SANITARY SYSTEMS.

Company towns are generally without sewers and as a rule water is not piped into the houses. Drainage gutters are rather infrequently provided, particularly in mining towns.

An indication of the extent of modern conveniences in company houses may be obtained from the following table showing data for about 230 communities. This table shows that 18,331, or 38.5 per cent, of the 47,580 dwellings for which reports were obtained had inside water. The sanitary conveniences in these dwellings ranged from a complete three-piece bathroom and modern kitchen plumbing to merely a bibb or faucet in the kitchen. On the other hand, 29,249, or 61.5 per cent, of the dwellings reported had no inside water or sanitary conveniences.

NUMBER AND PER CENT OF COMPANY DWELLINGS HAVING SPECIFIED SANITARY EQUIPMENT, BY INDUSTRY GROUPS.

NUMBER.

Industry group.	Bath, water-closet, sewer or cess-pool, water system, and gas or electric light.	Bath, water-closet, sewer or cess-pool, and water system.	Water-closet, sewer or cess-pool, running water inside, and gas or electric light.	Water-closet, sewer or cess-pool, and running water inside.	Gas or electric light and running water inside.	Running water inside, bath, and gas or electric light.	No modern conveniences except gas or electric light.	No modern conveniences except running water inside.	No modern conveniences (outside privies).	Total number reporting.
Bituminous coal mining:										
Pennsylvania and West Virginia.....	1 242	12			289	2 5	4,314	215	5,042	10,119
Ohio and Indiana.....	3						76		156	235
Alabama, Tennessee, and Kentucky.....	53	1		1	58	3 7	1,189	148	3,871	5,328
Colorado and Wyoming.....					6	58	1,121		29	1,214
Total.....	208	13		1	353	70	6,700	363	9,098	16,896
Anthracite coal mining.....	4 234	21	170	360	418	4 62	16	940	1,813	4,034
Iron mining:										
Michigan, Wisconsin, and Minnesota.....	73			96	142		538	95	113	1,057
Alabama.....	19		1		10	8	6	33	447	524
Total.....	92		1	96	152	8	544	128	560	1,581
Copper mining: Michigan and Tennessee.....	76	32	54	134			5 57	250	6 305	908
Other copper and gold mining: Arizona, Colorado, and New Mexico.....	284		5		127	8	97		121	642
Iron and steel and allied industries:										
Northern district.....	2,259	274	507	652	55	7 31	62	472	1,410	5,722
Southern district.....	31	2	8		5		428	1	222	697
Total.....	2,290	276	515	652	60	31	490	473	1,632	6,419
Manufacture of explosives.....	2,782		66		8		144		184	3,164
Textile manufacture:										
Northern district.....	242	9	188	56				129	19	643
Southern district.....	391	5	797	648	344		2,546	249	4,912	9,892
Total.....	633	14	985	704	344		2,546	378	4,931	10,535
Miscellaneous industries.....	1,569	503	121	587	548	1	6	61	5	3,401
Grand total.....	8,238	859	1,917	2,534	2,010	180	10,600	2,593	18,649	47,580

¹ 15 have "Kaustine" privies.² 4 have shower baths; 1 has no gas or electric lights.³ 1 has shower bath and no gas or electric lights.⁴ 40 have combination bath and laundry tub in kitchen.⁵ 3 have pumps inside house.⁶ 173 have pumps inside house.⁷ 29 of these have no gas or electric lights.⁸ Not including 5,596 dwellings for which data have not been reported.

NUMBER AND PER CENT OF COMPANY DWELLINGS HAVING SPECIFIED SANITARY EQUIPMENT, BY INDUSTRY GROUPS—Concluded.

PER CENT.

Industry group.	Bath, water-closet, sewer or cess-pool, water system, and gas or electric light.	Bath, water-closet, sewer or cess-pool, and water system.	Water-closet, sewer or cess-pool, running water inside, and gas or electric light.	Water-closet, sewer or cess-pool, and running water inside.	Gas or electric light and running water inside.	Running water inside, bath, and gas or electric light.	No modern conveniences except gas or electric light.	No modern conveniences except running water inside.	No modern conveniences (outside privies).	Total number reporting.
Bituminous coal mining:										
Pennsylvania and West Virginia...	2.4	0.1	.....	.....	2.9	(1)	42.6	2.1	49.8	100.0
Ohio and Indiana.....	1.3	.....	.....	.....	.....	.....	32.3	.....	68.4	100.0
Alabama, Tennessee, and Kentucky.	1.0	(1)	.....	(1)	1.1	0.1	22.3	2.8	72.7	100.0
Colorado and Wyoming.....	.....	.....	.....	.....	.5	4.8	92.5	.....	2.4	100.0
Total.....	1.8	.1	.....	(1)	2.1	.4	39.7	2.1	53.8	100.0
Anthracite coal mining.....	5.8	.5	4.2	8.9	10.4	1.5	.4	23.3	44.9	100.0
Iron mining:										
Michigan, Wisconsin, and Minnesota.	6.9	.....	.....	9.1	13.4	.....	50.9	9.0	10.7	100.0
Alabama.....	3.6	.....	.2	.....	1.9	1.5	1.1	6.3	85.3	100.0
Total.....	5.8	.....	.1	6	9.6	.5	34.4	8.1	35.4	100.0
Copper mining: Michigan and Tennessee.	8.4	3.5	5.9	14.8	.....	.....	6.3	27.5	33.6	100.0
Other copper and gold mining: Arizona, Colorado, and New Mexico.....	44.2	.....	.8	.....	19.8	1.2	15.1	.....	18.8	100.0
Iron and steel manufacture:										
Northern district.....	39.5	4.8	8.9	11.4	1.0	.5	1.1	8.2	24.6	100.0
Southern district.....	4.4	.3	1.1	.....	.9	.....	61.4	.1	31.9	100.0
Total.....	35.7	4.3	8.0	10.2	.7	.5	7.6	7.4	25.4	100.0
Manufacture of explosives.....	87.3	.....	2.1	.....	.3	.....	.6	.....	5.8	100.0
Textile manufacture:										
Northern district.....	37.6	1.4	29.2	8.7	.....	.....	.....	20.1	3.0	100.0
Southern district.....	3.9	.1	8.1	6.6	3.5	.....	25.7	2.5	49.7	100.0
Total.....	6.0	.1	9.3	6.7	3.3	.....	24.2	3.6	46.8	100.0
Miscellaneous industries.....	46.1	14.8	3.6	17.3	16.1	(1)	.2	1.8	.1	100.0
Grand total.....	17.3	1.8	4.0	5.3	4.2	.4	22.3	5.4	39.2	100.0

¹ Less than one-tenth of 1 per cent.

Smallness and isolation of the community are the determining factors in limiting the extent to which modern sanitary conveniences have been provided. The type of wage earner to be housed is also a large factor. Sanitary conveniences are most rarely found in mining towns, both North and South, and in the mill towns of the South. Thus in the soft coal regions, only 312 dwellings, or 1.9 per cent of the 16,896 reported, have inside toilets, while 16,584 or 98.1 per cent have outside toilets. In the more thickly settled anthracite region 19.5 per cent have inside toilets and 80.5 per cent outside. In the

northern iron mining regions 84 per cent have outside toilets and in the Alabama or southern district 96.2 per cent. For the northern and southern textile regions, the effect of relative isolation is equally apparent, in the northern district 23.1 per cent having outside toilets and in the southern 81.4 per cent. For certain communities engaged in miscellaneous industries near larger centers of population and industry, and where a better paid class of workmen are housed, only 18.3 per cent of the company dwellings are dependent on outside toilets. In communities engaged in the manufacture of explosives the proportion is only 10.6 per cent. More detailed figures for the various regions are shown in the table which follows:

NUMBER AND PER CENT OF COMPANY DWELLINGS HAVING INSIDE AND OUTSIDE TOILETS.

Industry group.	Total.	Inside toilets.		Outside toilets.	
		Number.	Per cent.	Number.	Per cent.
Bituminous coal mining:					
Pennsylvania and West Virginia.....	10, 119	254	2.5	9, 865	97.5
Ohio and Indiana.....	235	3	1.3	232	98.7
Alabama, Tennessee, and Kentucky.....	5, 328	55	1.0	5, 273	99.0
Colorado and Wyoming.....	1, 214			1, 214	100.0
Total.....	16, 896	312	1.9	16, 584	98.1
Anthracite coal mining.....	4, 034	785	19.5	3, 249	80.5
Iron mining:					
Michigan, Wisconsin, and Minnesota.....	1, 057	169	16.0	888	84.0
Alabama.....	524	20	3.8	504	96.2
Total.....	1, 581	189	12.0	1, 392	88.0
Copper mining: Michigan and Tennessee.....	908	296	32.6	612	67.4
Other copper and gold mining: Arizona, Colorado, and New Mexico.....	642	289	45.0	353	55.0
Iron and steel and allied industries:					
Northern district.....	5, 722	3, 692	64.5	2, 030	35.5
Southern district.....	697	41	5.9	656	94.1
Total.....	6, 419	3, 733	58.1	2, 686	41.9
Manufacture of explosives.....	3, 164	2, 828	89.4	336	10.6
Textile manufacture:					
Northern district.....	643	495	77.0	148	23.0
Southern district.....	9, 892	1, 841	18.6	8, 051	81.4
Total.....	10, 535	2, 336	22.2	8, 199	77.8
Miscellaneous industries.....	3, 401	2, 780	81.7	621	18.3
Grand total.....	47, 580	13, 548	28.5	34, 032	71.5

PROVISION OF GARBAGE COLLECTION, AND SANITARY REGULATIONS.

In such matters as street cleaning, collection of garbage, and the enforcement of sanitary rules, the companies establishing the communities are almost wholly responsible. In over one-half of the communities reporting, street cleaning, garbage collection, and sanitary regulations are functions of the employing company and not of

the community. In over one-fourth of the communities no sanitary regulations are in force. Of the 224 communities for which data are reported the company in control of the community attends to street cleaning in 146 or 65.2 per cent of the total; in 54 or 24.1 per cent the municipal authorities are responsible; while in 24 or 10.7 per cent it is stated that no street cleaning was ever performed. In 116 or 56 per cent of the 207 communities reporting as to the matter of providing and enforcing sanitary regulations for the health of the communities, the controlling company is responsible; in 35 or 16.9 per cent the local municipal authorities are accountable; while in 56 or 27.1 per cent no sanitary rules or regulations are enforced.

One hundred and eighty-four companies reported the extent and frequency with which the collection of garbage was attended to in company towns. By 15 companies or 28.2 per cent of the total reporting the practice of daily removal is observed; in 95 or 51.6 per cent it is weekly or semiweekly in about equal proportions. The following statement briefly sets forth the facts:

FREQUENCY OF GARBAGE COLLECTION IN COMPANY TOWNS.

Frequency.	Number.	Per cent.
Daily.....	15	8.2
Semiweekly.....	41	22.3
Weekly.....	54	29.3
Semimonthly.....	8	4.3
Monthly.....	5	2.7
Bi-monthly or less frequently.....	16	8.7
No garbage collection.....	45	24.5
Total.....	184	100.0

It is probably safe to state that where the collection of garbage was reported as infrequently as bimonthly or at a greater interval, it was not in reality garbage collection but merely refuse and waste collection. It seems quite unlikely that tenants kept garbage on the premises for as long a period as a month at a time without some disposal of it either by burning or feeding to animals. Thus the statement that 45 companies, or 24.5 per cent of the total reported, did not attend to garbage collection in their community is a conservative statement of the situation in that respect and it may be said with greater truth that this is the situation for 66 companies, or one-third (35.9 per cent) of the number reporting. The following table sets forth the data, by industries, of the frequency of garbage collection in company towns:

FREQUENCY OF GARBAGE COLLECTION IN COMPANY TOWNS, CLASSIFIED BY INDUSTRY GROUPS.

Industry group.	Towns in which collection of garbage was made—						Towns in which no garbage collection was provided.	Total.
	Daily.	Semi-weekly.	Weekly.	Semi-monthly.	Monthly.	Bi-monthly and less frequently.		
Bituminous coal mining:								
Pennsylvania and West Virginia.....	2	3	16	1	3	4	7	² 26
Alabama, Tennessee, and Kentucky.....	³ 2	⁴ 3	3	4	.....	6	6	⁵ 24 ⁷ 3
Colorado and Wyoming.....	1	⁶ 1	.....	.....	1	.....	.....	.....
Total.....	5	7	9	5	4	10	13	53
Anthracite coal mining.....	.....	1	⁸ 4	.....	.....	3	16	⁹ 24
Iron mining:								
Michigan, Wisconsin, and Minnesota.....	.....	2	¹⁰ 3	.....	.....	.....	.....	5
Alabama.....	.....	1	.....	.....	.....	1	1	3
Total.....	.....	3	3	.....	.....	1	1	8
Copper mining: Michigan and Tennessee.....	.....	.....	¹¹ 3	.....	1	1	.....	5
Other copper and gold mining.....	1	2	1	.....	.....	.....	1	5
Iron and steel and allied industries:								
Northern district.....	3	¹² 4	¹³ 6	2	.....	1	6	¹⁴ 22 ¹⁵ 3
Southern district.....	.....	.....	3	.....	.....	.....	.....	.....
Total.....	3	4	9	2	.....	1	6	25
Textile manufacture:								
Northern district.....	.....	¹² 2	¹⁶ 4	.....	.....	.....	.....	17 6
Southern district.....	¹³ 3	¹⁹ 15	17	.....	1	.....	4	²⁰ 40
Total.....	3	17	21	.....	1	.....	4	46
Miscellaneous industries.....	3	4	7	.....	.....	.....	4	18
Grand total.....	15	41	54	8	5	16	45	184

¹ "Weekly in summer" reported by one company; none in winter.

² Five other companies reported as follows: "When notified by tenants"; "As required"; "Disposed of by drain in back yard, which is flushed;" company did not know; and every two months.

³ One continually; 1 man on job all the time.

⁴ One semiweekly in summer, weekly in winter.

⁵ Including 1 biweekly in summer, weekly in winter, and 1 weekly in summer only, and 1 continually, 1 on job all the time.

⁶ There are 12 localities operated by this one company.

⁷ Two other companies reported, "When necessary," constantly.

⁸ Includes one company collecting garbage semiweekly in summer.

⁹ Another company reports "Man on job all the time."

¹⁰ Two companies collect only semimonthly in winter.

¹¹ One in winter; daily in summer.

¹² In two cases by municipalities.

¹³ In two cases by municipalities; 1 company collects only in summer time.

¹⁴ Eight other companies within city or borough where municipal collection is provided.

¹⁵ One other company reports "Man on job all the time."

¹⁶ In one case by municipality.

¹⁷ Three companies within city.

¹⁸ One other reports "Constantly."

¹⁹ Including 2 by municipalities and 5 reporting semiweekly in summer and weekly in winter.

²⁰ Four other companies within city where municipal collection is provided.

The open vault privy is the commonest type of privy used in company towns. Only in the mining towns of the Birmingham (Ala.) district, operated by one of the largest companies in that region, has the can type of privy been adopted at all generally, 20

companies of the two hundred-odd companies included reporting its use to a certain extent. The company in the Birmingham district also carefully protects its outhouses by screening, and disposes of the contents by a system of water decomposition. In the coal-mining region of Pennsylvania, both bituminous and anthracite, the old-fashioned method of scavenging by burial or burning of contents prevails. In rare instances the practice of moving the privies from place to place as the vaults became full was reported.

The great advantage of the can type of privy is that it makes frequency of disposal absolutely necessary, and it is only in those communities where frequency of cleaning is reported as weekly or semiweekly that that type of privy is found. Only 31 companies, or 20.9 per cent, of 150 reporting have vault or can contents disposed of as frequently as weekly or semiweekly, while 29, or 19.3 per cent, report an annual cleaning, and 68, or 45.3 per cent, report the practice as irregular.

The practice as respects frequency of cleaning privies is noted in the statement below for 150 companies:

FREQUENCY OF CLEANING PRIVIES.

Frequency.	Number.	Per cent.
Semiweekly.....	13	8.6
Weekly.....	18	12.3
Semimonthly.....	7	4.6
Monthly.....	4	2.6
Semiannually.....	11	7.3
Annually.....	29	19.3
Irregularly.....	68	45.3
Total.....	150	100.0

OVERCROWDING.

In only a few instances was the actual population in company houses reported. By three companies in the southern cotton-mill region the village population was reported. One of these villages showed gross overcrowding—the worst encountered in that region. All three villages are in mill districts on the outskirts of cities. Mill No. 1 project houses 1,500 persons in 878 rooms, equivalent to 1.7 persons per room. Mill No. 2 project houses 3,431 persons in 2,638 rooms, or 1.3 persons per room. Mill No. 3 project houses 1,000 persons in 465 rooms, or 2.15 persons per room.

The last mentioned was one of the worst cases of overcrowding seen. Eighty new 4-room bungalows are largely used by two households each; the 3-room houses in many cases contain more than one family; and the 10-room tenements (5-room semidetached houses, but "so cut up by families that we call them tenements") are occupied each by a number of households, one noted by the agent housing a

total of 30 or more persons. This company is said to be building constantly in an effort to do away with this overcrowded condition. However, it is one of the companies reporting the rule that a family must provide one hand for each room.

The companies in the cotton-mill region generally insist that each room in the house shall provide one operative for the mill. The number of hands a family can supply for a mill is a factor in determining the allotment of housing accommodations. This condition, it is observed, is closely bound up with the question of child labor.

Even where the rule of one employee per room does not obtain and where experienced welfare workers are making every effort to raise the standards of living, it is said that some families still sleep all in one room "as they did in the mountains." The opposite practice of using all rooms for sleeping purposes results in a condition deplored again by social workers in the mill communities, since the young people have no sitting room in which to entertain guests. The use of couches instead of beds in the front room is an innovation being gently but firmly urged by one welfare secretary.

The isolated location of the villages is one cause of the evil of overcrowding, since the housing activities of the companies do not always keep pace with an increase in spindleage or the erection of additional mills. The best employers anticipate such a condition, and several of the communities visited in 1917 were putting up scores of new houses in preparation for the influx of labor due to the increased activity in the industry. Quite commonly the oldest employees are given the preference in the allotment of new houses; not infrequently, however, they ask to be allowed to stay in the houses they have occupied for years. Where a shortage of houses exists the families are compelled to take boarders or to occupy fewer rooms, both of which measures are resented by all but the least desirable among the workers.

A certain company town in Virginia gave a very complete statement of the population of its houses by race, sex, and age. From the data furnished by this company it appears that 9,481 white persons occupied 1,949 houses, making an average of 4.86 persons, including men, women, and children, per dwelling. As the average number of rooms per dwelling as reported by this company works out to between 5 and 6, the average number of persons per room appears to be somewhat less than 1.

In the southern company towns a certain feature of the houses tends to encourage overcrowding. The small, four-room bungalow dwelling, so characteristic of the region, has two doors opening upon a front porch and inside doors connecting each pair of front and back rooms. By closing the inside pair of doors the pair of rooms on each

side may be made into two two-room dwellings. In times of housing shortage this has been done, but recently the companies more scrupulous in such matters have frowned upon the practice. While this particular feature of house construction can not be said to be a cause of house crowding it is none the less an incentive to it.

Company housing almost everywhere is defective in so far as no rules are made against the keeping of boarders and roomers. Nor is the lack of such a rule offset, except in rare cases, by the provision of houses specially constructed for keeping roomers and boarders. Frequently the keeping of roomers and boarders is encouraged. A mining company in West Virginia encouraged the keeping of boarders by offering a bonus for each boarder in a company house. In a certain town owned by a steel car manufacturing company many of the single houses were occupied by two families and no restrictions have been placed on boarders. The relatively high rents in the Polish section of a certain New England textile town was evidence of the fact that the occupants were understood by the company to be taking in roomers and boarders to eke out their income. The houses had not, moreover, been specially constructed with a view to such a contingency.

In short, the whole system of company housing can readily lead to a connivance on the employer's part toward overcrowding. The employee is frequently ready to take lodgers to excess to secure the additional income. Likewise the interest of the employer is to use his housing investment to its maximum capacity. And in a time of high production and a boom market the temptation to use the houses to the limit of capacity is greatly increased.

LABOR LAWS.

LAW OF ARGENTINA REGULATING HOME WORK.¹

The congress of Argentina recently passed a law providing for the inspection, supervision, and regulation of home work in the Federal capital and national territories. The principal provisions of the law, which covers all persons regularly and as an occupation performing home work (domestic service excluded) for others, are as follows:

Every employer of home workers shall keep a register which shall contain the name and place of residence of each employee, the kind and quantity of work intrusted to each, and the wage rate paid. This register shall be open on all working days to inspection by the inspectors of the national department of labor.

At the time of receiving work to be performed the employee shall be given a book in which shall be noted the kind and quality of the work to be done, the date on which the work is given out, the price to be paid, and the material furnished. Upon return of the finished work proper notations of the date of such return and the amount paid the worker are required to be entered.

Fines, not exceeding one-sixth of a day's earnings, for imperfect work or damaged material, may be imposed.

Working places, in which members of one family alone are employed under the direction of one of the members, are not subject to inspection, provided no power machinery is used and the industry is not classified as dangerous or unhealthful, and inspectors have no right to enter them unless reliably informed that these grounds of exemption no longer exist.

Work on shoes, hats, clothing, cloths, and flowers, and in the preparation and packing of food products for human consumption, is prohibited in any house where infectious or contagious diseases, especially tuberculosis, exist or have existed, until the patients have been removed and the premises disinfected. Employers are forbidden to receive work done in such houses. Persons in charge and principal lessees of premises where home work is performed are required to notify the health officer when cases of infectious or contagious diseases occur therein. Physicians in attendance upon persons living in such houses who are suffering from tuberculosis must notify the lessee of the house and the proper public officials.

¹ Boletin de la Union Industrial Argentina, Oct. 15, 1918 (p. 30).

Upon request of not fewer than 50 persons employed in home work in any occupation or industry the Department of Labor shall authorize the establishment of a wage commission for the purpose of establishing a minimum wage rate per hour or piece, in consonance with national laws relating to hours of labor. These commissions shall be composed of an equal number of employers and employees, of either sex, chosen by the interested parties, respectively. If choice is not made within a given time, the executive shall appoint the members. The president of the commission shall be appointed by the executive. Members of the commission are elected to serve two years, and may be reelected indefinitely. A quorum consists of an absolute majority of the members and when the number of workers' representatives exceeds 2, at least 2 of them must be present. Meetings may be called by the president of the commission when necessary or upon request of one-third of the members.

The commissions shall fix the minimum wages of home workers in any occupation under their respective jurisdictions, upon request of members of the commission of labor inspectors or of 10 persons engaged in such occupation. Decisions are rendered by a majority of the members present, the president casting the deciding vote in case of a tie. In all cases the nature of the work, the local price of the finished article, the cost of living, the wages paid for similar work in the national capital or territories where the same or similar article is produced, local customs, and the value of raw materials and working tools shall be considered in fixing rates. Deductions for wages of contractors or subcontractors are prohibited.

Decisions must be published in the form prescribed by the Department of Labor, and shall become effective 15 days after publication. Labor inspectors are charged with the execution of all decisions.

Public officials are not allowed to receive any commission, remuneration, or compensation for their services in any actions taken under the law.

LABOR ORGANIZATIONS.

PAN AMERICAN LABOR CONFERENCE, LAREDO, TEX., NOV. 13-16, 1918.¹

Seventy-five representatives of the American Federation of Labor, of the Mexican Federation of Labor, and of organized labor in the Central and South American States of Guatemala, Costa Rica, Salvador, and Colombia met at Laredo, Tex., in the first International Labor Conference of Pan American countries, on November 13-16, 1918. The delegates elected by organized labor in Cuba, Venezuela, and Peru were unable to attend because of illness and delay in receipt of credentials. The Hon. William B. Wilson, Secretary of Labor, who attended the conference as the representative of President Wilson, and General Pablo de la Garza, representing President Carranza of Mexico, conveyed to the conference the greetings of the two executives, and the Hon. George W. P. Hunt, governor of Arizona, who attended most of the meetings, expressed himself as being heartily in accord with the aims of the conference.

The opening speech of the convention was made by Secretary Wilson who reviewed briefly some of the economic reforms secured by organized labor, the attitude of labor during the war, and the spirit of brotherhood shown in the American Labor Mission to Europe and in the calling together of the Pan American conference. Speeches followed by Mr. Luis N. Morones, secretary general of the Mexican Federation of Labor, in which he stressed the desire to prevent exploitation of Mexican workers in the United States, and by President Gompers, of the American Federation of Labor. Mr. Gompers spoke of the necessity for greater unity among labor members of all countries in view of peace problems and for a renewal of the internationalist labor movement when peace shall finally be concluded.

Among the various questions taken up by the conference was that of forming a Pan American organizing and educational labor agency for the purpose of instructing workers coming to this country in the principles of trade-unionism. As New York City is the principal port of entrance for workers from Latin American countries, and as there are many thousands of such workers living there, it was decided that that city was the proper place to locate the agency.

¹ See also MONTHLY LABOR REVIEW for November, 1918 (pp. 257-259).

Much time was spent in the discussion of the statement of the Mexican Federation of Labor of the grievances of Mexican workers in the United States in regard to alleged ill treatment by the authorities on the border and discrimination against them by American trade-unions. The Mexican delegates claimed that it was within the power of the American Federation of Labor to remedy these conditions and that the principal obstacles to unification lay in the continuation of such practices. The American delegates replying to these criticisms stated that although thousands of dollars had been spent by the Federation to impress upon the Mexican miners the necessity for labor organization they had not succeeded in creating a spirit of union loyalty among them. It was decided to appoint a committee from both the American and Mexican labor unions to investigate the charges of unfair treatment at the points where it is believed or known such abuses are being committed.

A resolution authorizing the executive council of the American Federation of Labor to exert its influence so that "justice and protection be imparted to those workmen who for various reasons are deprived of their liberty in the jails of the United States" aroused extended discussion—the Mexican delegates taking the position that the members of the Industrial Workers of the World who were jailed by the American Government because of having made an active propaganda against the recruiting of soldiers should have the sympathetic assistance of labor, while the American delegates held that they were opposed by American labor because they were wrong in thought and principle and not because they were not affiliated with the American labor organization.

Another subject bringing difference of opinion was the resolution on peace terms introduced by Mr. Gompers declaring for a league of free peoples to secure justice and peace between nations; no political or economic restrictions to benefit some nations and cripple others; no reprisals except to right manifest wrongs; recognition of the rights of small nations to dispose of themselves; recognition of the principle that the labor of a human being is not a commodity or article of commerce; assurance that industrial servitude shall not exist except as a punishment for crime; freedom of association, speech, assemblage, and press; the insuring to seamen of the right to quit their jobs when the ship reaches port; abolition of child labor; eight-hour basic workday; and trial by jury. The Mexican delegates, while maintaining their belief in the principles set forth, objected to the adoption of that part of the resolutions relating to European questions on the ground that it would involve them in the conflict, and that the conference was met to discuss labor questions only. The

resolution was finally adopted, the Mexican delegates casting their votes subject to the ratification of their coworkers in Mexico.

The delegates from the Central American States submitted a joint report declaring for the Pan American Federation of Labor and asking for a commission composed of representatives from both the United States and Mexico to assist them in organization of trade-unions in their countries.

It was the unanimous opinion of the conference that an intelligently organized national labor movement in each of the Pan American countries to deal with national questions affecting the workers and the unions of the national labor movements in a Pan American Federation of Labor would be the greatest opportunity and guaranty for a democracy that will protect the workers and insure their betterment, and, therefore, the conference culminated in the organization of the Pan American Federation of Labor, to be composed of the labor movements of the United States of America, United States of Mexico, the States of Central and South America, and Canada.

The objects of the Pan American Federation of Labor are declared to be:

First. The establishment of better conditions for the working people who emigrate from one country to another.

Second. The establishment of a better understanding and relationship between the peoples of the Pan American Republics.

Third. To utilize every lawful and honorable means for the protection and promotion of the rights, the interests, and the welfare of the peoples of the Pan American Republics.

Fourth. To utilize every lawful and honorable means for the purpose of cultivating the most favorable and friendly relations between the labor movements and peoples of the Pan American Republics.

The following are the officers of the Pan American Federation of Labor:

Chairman, Samuel Gompers, president of the American Federation of Labor.

English-speaking secretary, John Murray, secretary of the Pan American Federation of Labor conference committee.

Spanish-speaking secretary, Canuto A. Vargas, Mine, Mill, and Smelter Workers' International Union of Morenci, Ariz.

The headquarters of the federation will be at Washington, D. C., and the first annual congress will be held in New York City, July 7, 1919.

RESOLUTIONS ADOPTED BY SCANDINAVIAN LABOR CONFERENCE AT COPENHAGEN, SEPT. 11-13, 1918.

Representatives of the labor unions in Denmark, Norway, and Sweden gathered at Copenhagen on September 11, 12, and 13, 1918, for their regular semiannual conference. The meeting was attended by 15 members from Denmark, 10 from Norway, and 7 from Sweden. Discussion was centered on the following subjects:

1. Verbal statements concerning the conditions within the different branches and with regard to the position of the laboring classes during the war, including (a) movements concerning wages during the war and the increased cost of living; (b) food conditions.

2. Questions concerning a legal introduction of the eight-hour working day.

3. Trade-unions in Finland. (What may be done to support the labor organizations in Finland.)

4. Scandinavian and international collaboration. (Discussion concerning possible combined action in connection with international work of reorganization and concerning the enlargement of Scandinavian cooperation, especially during the war.)

Before the conference concluded resolutions were adopted favoring the eight-hour day, expressing sympathy with the Finland laborers in their present difficulties and contributing 30,000 kroner (\$8,040) to their aid, indorsing the movement for a closer relation between the Scandinavian trade-unions, and expressing the hope that there might be a resumption in the near future of international relations between the laboring men of all countries of the world. The text of the resolutions, as transmitted to this bureau through the State Department, is as follows:

The struggle for the eight-hour day shall be accelerated.—As it has previously been asserted by the International Scandinavian Labor Conference, the length of the working day has been objectionable in the past, both from a sanitary and cultural point of view.

Now, as well as in the past, complete unity exists to the effect that the efforts on the part of the labor organizations to have the working hours reduced be continued, and it is recommended also, in view of the prevailing unemployment, that this question be placed in the foreground in connection with the contemplated planning of the organizations' work.

It is, however, clear to the conference that a thoroughly satisfactory solution of the questions of working hours can only be attained through the medium of a statutory maximum working day, which should, as a rule, be eight hours, and the laboring class must therefore exercise all its political influence to attain this aim.

In furtherance of this task the conference recommends to the labor organizations of the three Scandinavian countries to set forth a demand at an early date calling for the introduction of a bill by which the old and legitimate demand of the laborers may be realized.

Finnish laborers.—The conference is in warm sympathy with the Finnish fellow partisans, who are exposed to hard trials as a result of recent developments, and

expresses the hope that the organizations may be reestablished as soon as possible in order to protect the interest of the laboring classes.

The laborers and labor organizations of the Scandinavian countries are encouraged to contribute to the collections which are started by the chief organizations, and it is resolved that temporarily an amount of kr. 30,000 be sent to the Finnish comrades; namely, kr. 10,000 from each of the three Scandinavian organizations.

More intimate association between the Scandinavian organizations.—In view of the fact that it is important that the trade-unions are acquainted with all plans as to any contemplated negotiations concerning the conclusion of agreements in the future, the members of the conference are of the opinion that reports should be exchanged to the greatest possible extent concerning these conditions, and that if necessary minor conferences be held when the organizations of the individual countries have formed their programs.

Reestablishment of connections between the international trade-unions.—The Scandinavian Labor Conference, which adheres to the view that an international collaboration between the labor organizations is of the greatest import for a furtherance of the interest of the labor classes, regrets that the state of war has partly interrupted the connections which have already led to valuable results.

The meeting expresses its adherence to the resolutions passed by the international conference in Berne in 1917, and emphasizes the latter's proposal to the national organizations to the effect that "all efforts should be employed for the purpose of removing all existing divergencies created by the war and to establish unity."

Inasmuch as we are convinced that in so far as their own interests are concerned the labor masses have no reason for combatting each other, and while on the other hand the war raises problems which threaten to constitute a menace to the laborers, we again encourage all fellow partisans to accelerate the resumption of international cooperation, with the purpose of furthering the great work of independence.

It is also in the interest of all laborers that the large international problems which will present themselves at the conclusion of peace be solved in consultation with the various organizations. Under these circumstances the labor unions should everywhere support the plan of creating an international labor meeting at which the cause of our organization, as well as that of our fellow partisans, may be subjected to the necessary consideration and peace restored between the laborers.

STRIKES AND LOCKOUTS.

REVOCATION OF CANADIAN ORDER IN COUNCIL FORBIDDING STRIKES AND LOCKOUTS DURING THE WAR.

On October 11, 1918, the Canadian Government passed an order in council forbidding strikes and lockouts for the duration of the war. The order became effective on October 18 and was issued following a recommendation by the minister of labor, who suggested that the Industrial Disputes Investigation Act, the labor board of appeal created on July 12, 1918, by order in council 1743,¹ and the Canadian railway board of adjustment No. 1, established by agreement² between the Canadian railway war board and representatives of brotherhoods of railroad employees, provide adequate legal machinery for the prompt and equitable settlement of disputes between employers and workers. The order is printed in full in the *Canada Labor Gazette* for November (pp. 983, 984). Subsequently, however, the minister of labor recommended that the order be rescinded³ "because it has served its purpose and is no longer necessary." The statement canceling the order says that the immediate necessity of the original order was caused by a threatened strike staged for Thanksgiving Day, by some 5,000 labor men. It "was issued only for the purpose of maintaining industrial peace during the continuance of the war."

¹ Published in the *MONTHLY LABOR REVIEW* for October, 1918 (pp. 47-50).

² See pages 165 and 166 of this issue.

³ The rescinding order is published in the *Canadian Official Record* (Ottawa) for Nov. 19, 1918 (p. 4).

CONCILIATION AND ARBITRATION.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, NOVEMBER 16 TO DECEMBER 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 November 16, 1918, and December 15, 1918, in 122 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 NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, NOV. 16 TO DEC. 15, 1918.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, machinists, Traylor Engine & Manufacturing Co., Allentown, Pa.	150	.....	Hours and overtime have been adjusted so as to provide for 8-hour day. Company desires more time to consider wages for specialists. Machinists and subforeman's wages granted.
Controversy, printing pressmen, Louisville, Ky.	29	635	Adjusted.
Strike, butchers, in suburbs, White Plains, Mt. Vernon, and New Rochelle, N. Y.	25	.....	Do.
Threatened strike, butchers in packing houses, Morris Co. and others, New York City and Brooklyn, N. Y.	125	.....	Do.
Controversy, electrical workers, Duluth & Missabe Northern Coal Docks, Duluth, Minn.	.....	.....	Pending.
Strike, engineers and firemen, Rochester Railway & Light Co., Rochester, N. Y.	35	1,100	Adjusted.
Controversy, molders, Union Iron Works, Decatur, Ill.	26	60	Referred to National War Labor Board.
Strike, building trades, Dupont Powder Plant, Nashville, Tenn.	.....	.....	Pending.
Controversy, machinists, Lancaster Steel Products Co., Lancaster, Pa.	.....	.....	Do.
Controversy, oil fields, Cleveland, Okla.	.....	.....	Do.
Controversy, Carlisle Tannery, Saginaw, Mich.	.....	.....	Do.
Threatened strike, Illinois Southern Railway Co., Sparta, Ill.	300	200	Referred to National War Labor Board.
Controversy, molders (6 foundries), Muncie and New Castle, Ind.	140	450	Adjusted.
Controversy, Steel Car Forge Co., East Hammond, Ind.	.....	.....	On Nov. 18 the Ordnance Department went on an 8-hour shift, and many employees were leaving due to this, but there was no trouble nor was any anticipated.
Threatened strike, cereal workers, Northern Illinois Cereal Co., Lockport, Ill.	140	.....	Adjusted.
Strike, steam fitters, Lehigh Valley Construction Co., Hazleton, Pa.	8	310	Do.
Controversy, brewery workmen, Commercial Solvents Co., Terra Haute, Ind.	.....	.....	Do.
Controversy, pattern makers, Malleable Iron Co., Dayton, Ohio.	.....	.....	Pending.

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, NOV. 16 TO DEC. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, Jacob Dold Packing Co., Buffalo, N. Y.	150	800	Adjusted.
Threatened strike, molders (3 firms), Kalamazoo, Mich.	90	.....	Pending.
Controversy, theatrical employees, Sunshine Comedy Studio, Los Angeles, Cal.	1	30	Adjusted.
Controversy, core makers and molders, T. S. Smith Mfg. Co., Milwaukee, Wis.	65	275	Pending.
Threatened strike, Western Chemical Co., Denver, Colo.	.....	.....	Do.
Controversy, coal miners (district 15), Denver, Colo.	.....	.....	Do.
Threatened strike, St. Joseph Tannery Co., and Swift & Co., St. Joseph, Mo.	100	10	Do.
Walkout, slaughterhouse butchers, California Dressed Beef Co., Los Angeles, Cal.	20	10	Adjusted.
Strike, Kranich & Bach Piano Co., N. Y.	185	.....	Do.
Controversy, Aunt Jemima Mills, St. Joseph, Mo.	2	700	Do.
Controversy, coke oven department, Bethlehem Steel Co., Sparrows Point, Baltimore, Md.	13	.....	Do.
Controversy, Borden Condensed Milk Co., Logan, Utah.	75	.....	Do.
Controversy, ribbon weavers, Miesch Mills, South Paterson, N. J.	.....	.....	Pending.
Threatened strike, machinists and car men, Spokane & Inland Empire Railway Co., Spokane, Wash.	80	150	Unable to adjust.
Strike, Vulcan Detinning Co., Streator, Ill.	134	.....	Adjusted.
Controversy, cereal workers, flour mills, Great Falls, Mont.	130	300	Do.
Controversy, electrical workers, American Car & Foundry Co., Chicago, Ill.	7	1,300	Do.
Controversy, steam and operating engineers, National Lime & Stone Co., Carey, Ohio.	.....	.....	Do.
Controversy, molders, Ypsilanti Hay Press Co., Ann Arbor Machine Co., McCullough Foundry & Machine Co., and Michigan Press Co., Ann Arbor, Mich.	32	57	Referred to National War Labor Board.
Controversy, machine tool workers, J. W. Oliver, Knoxville, Tenn.	8	38	Pending.
Controversy, painters, San Antonio, Tex.	40	.....	Adjusted.
Controversy, trainmen and shopmen, Lake Erie, Franklin & Clearfield Ry., Clarion, Pa.	.....	.....	Pending.
Controversy, electrical workers and linemen, Louisville Street Railway & Interurban Co., Louisville, Ky.	50	2,000	Adjusted.
Controversy, sheet-metal workers, seeking transportation from San Francisco, Cal., to Chicago, Ill.	9	.....	Pending.
Threatened strike, sheet-metal workers, Kilts & Jackson, Los Angeles, Cal.	8	.....	Adjusted.
Controversy, typographical union, Fond du Lac, Wis.	.....	.....	An agreement had been made which would not expire until 1920. Printers asked for more money, and were granted some increase. Matter will rest for time being as inventory was being taken, and if possible wages would again be raised, so commissioner did not enter situation.
Lockout, carpenters, calkers, joiners, International Shipbuilding Co., Pascagoula, Miss.	2,300	.....	Pending.
Controversy, maintenance of way men, Savannah & Atlanta Railway Co., Savannah, Ga.	16	130	Do.
Controversy, butchers and meat cutters, Indian Packing Co., Green Bay, Wis.	450	.....	Adjusted.
Threatened strike, retail clerks, Chicago department stores, Chicago, Ill.	12,000	.....	Pending.
Controversy, pattern makers, Smith & Sons, Kansas City, Mo.	6	.....	Adjusted.
Controversy, pressmen, Minneapolis Tribune, Minneapolis, Minn.	20	.....	Pressmen did not seem disposed to urge matter of wages further, so commissioner withdrew from case.

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, NOV. 16 TO DEC. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, plasterers, lathers, plumbers, and electrical workers on Hotel Monticello, Mellon-Stuare Co., contractors, Pittsburgh, Pa.	185	.....	Adjusted.
Strike, electrical workers, Sheffield, Ala.	.....	.....	Do.
Controversy, pressmen and printers, A. R. Barnes Co., Chicago, Ill.	28	190	Do.
Controversy, metal polishers, Perkins Manufacturing Co., Chicago, Ill.	6	8	Do.
Threatened strike, foundry employees, Taylor Foundry Co., Brooklyn, N. Y.	.....	.....	Conferences were held with a representative of the men. The complaint was brought to the attention of the company with a statement setting forth the labor policy of the Government, particularly in shops which, like that operated by the Taylor Co., were engaged in war work. No further complaint has been filed.
Strike, teamsters, commission merchants, New York.	.....	.....	Adjusted.
Controversy, electrical workers, General Electric Co., Fort Wayne, Ind.	.....	.....	Pending.
Controversy, molders, Cedar Rapids, Iowa.	.....	.....	Do.
Controversy, molders, Lavelle Foundry Co., Anderson, Ind.	20	55	Adjusted.
Controversy, molders, Elwood Foundry Co., Elwood, Ind.	12	40	Settled prior to commissioner's arrival.
Controversy, foundrymen, Muncie Foundry & Machine Co., Muncie, Ind.	133	200	Company would not bargain with men except as individuals. As such they said they would grant an increase if sufficient work came in to warrant increase, but set no effective date.
Strike, hotel workers, waiters, etc., Albany, N. Y.	80	100	Pending.
Strike, plasterers, cement finishers, and mastic floor layers, Washington, D. C.	600	.....	Adjusted.
Controversy, watchmen, Bethlehem Shipbuilding Corporation (Alameda plant), Oakland, Cal.	.....	.....	Pending.
Threatened strike, machinists, Brown-Morris Tool Co., Detroit, Mich.	50	.....	Representative of Ordnance Department in Detroit instructed company to establish 48-hour week. Men stopped work one day at end of 8 hours and on return to work next morning were refused further employment. Company refused to reinstate them. Later, the machinists walked out. Commissioner has received no further information and no request for further assistance has been made by machinists.
Controversy, McCormick Harvester Co., Chicago, Ill.	15	7,200	Pending.
Controversy, molders and core makers, Anderson Foundry & Machine Co., Anderson, Ind.	12	.....	Do.
Strike, machinists, boiler makers, blacksmiths, Savannah & Atlanta Ry., Atlanta, Ga.	23	125	Adjusted.
Controversy, employees of various departments, Pittsburgh Steel Products Co., Monesson, Pa.	800	1,600	Company refuses to make any concessions, adhering to their policy of Sunday work without extra pay; claiming they were already doing all that could be done.
Threatened strike, carpenters, Anton Engineering & Contracting Co., Albany, N. Y.	35	100	Adjusted.
Strike, carpenters, clerks, guards, pattern makers, boiler makers, iron-ship builders, blacksmiths, machinists, etc., Foundation Shipyard, Savannah, Ga.	3,150	.....	Pending.
Threatened strike, seven flour mills, Kansas City, Mo., and vicinity.	400	100	Adjusted.
Strike, Atlas Machine Co., Providence, R. I.	.....	.....	Pending.
Threatened strike, bricklayers and laborers, United States Army base, Sewall's Point, Lockhaven, Va.	413	500	Do.

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, NOV. 16 TO DEC. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, plasterers, Hampton Roads Housing Operation, Norfolk, Va.	18	113	Pending.
Controversy, York Pattern Co., York, Pa.			Do.
Threatened strike, metal workers and machinists, Raymond Engineering Co. and three other companies, New York.	10		Do.
Strike, gas makers, Kings County Lighting Co., Brooklyn, N. Y.	7		Adjusted.
Threatened strike, butchers, Morris & Co. et al., Newark, N. J.	160		Pending.
Controversy, mechanics and common laborers, San Antonio, Tex.			Do.
Controversy, York Fire Weld Plant, American Chain Co., York, Pa.			Do.
Strike, iron and bronze workers, Hecla Iron Works, Brooklyn, N. Y.	200		Do.
Controversy, Guthrie Steel Co., Lackawanna Steel Co. and Kellogg Structural Steel Co., Buffalo, N. Y.			Do.
Strike, carpenters, employed in building apartment house and four stores for K. E. Moore, Norfolk, Va.	60		Adjusted.
Controversy, Cambria Steel Co., Johnstown, Pa.			Do.
Strike, machinists, toolmakers, roll turners, and helpers, Mesta Machine Co., Homestead, Pa.	300		Pending.
Strike, street railway, Omaha, Nebr.	1,200		Referred to National War Labor Board.
Controversy, pattern makers, Louisville, Ky.			Pending.
Threatened strike, leather workers, Peabody, Mass.			Do.
Controversy, Fort Whipple job, Prescott, Ariz.			Do.
Controversy, blacksmiths, Delany Forge Co., Buffalo, N. Y.	100		Do.
Strike, General Manufacturing Co., Philadelphia, Pa.	100	35	Do.
Controversy, pattern makers, General Electric Co., Fort Wayne, Ind.			Pending.
Controversy, Kansas Gas & Electric Co., Wichita, Kans.			Do.
Controversy, machinists, Hamilton Tool Co., Hoover, Owens, Rentschler Co., and Hamilton Furnace Co., Hamilton, Ohio.			Do.
Threatened strike, molders and core makers, Columbus Foundry Co., Columbus, Ind.	27	36	Do.
Threatened strike, molders and core makers, Emerson Brantingham Co., Columbus, Ind.	75		Do.
Controversy, machinists, Ellicott Machine Co., Baltimore, Md.	61		Do.
Threatened strike, machinists, General Electric Co., Erie, Pa.			Do.
Controversy, Seaboard By-products Coke Co., Jersey City, N. J.			Do.
Controversy, metal trades, Houston, Tex.			Do.
Controversy, packers and master butchers, Union markets, Seattle, Wash.			Do.
Controversy, art-square weavers' union v. manufacturing companies, Philadelphia, Pa.			Do.
Threatened strike, cable spicers, Chicago Telephone Co., Chicago, Ill.	115	14,000	Do.
Strike, Mitchell Motor Co., Racine, Wis.	85		Do.
Strike, machinists and toolmakers, Perflex Radiator Co., Racine, Wis.	20		Do.
Strike, Tie Plant, Metropolis, Ill.			Company claim they closed their plant for repairs to machinery and can not say when they will resume operations.
Threatened strike, printing department, Western Electric Co., Chicago, Ill.			Pending.
Controversy, bricklayers in Army camps, San Antonio, Tex.	75		Matter has been referred to War Department for attention. Bricklayers on Government work in this city are receiving \$1 per day less than their State-wide scale.
Lockout, Jacksonville Drydock & Repair Co., Jacksonville, Fla.	200		Pending.

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, NOV. 16 TO DEC. 15, 1918—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, packers, St. Joseph, Mo.			Pending.
Threatened strike, Buffalo Structural Steel Co., Buffalo, N. Y.	130		Do.
Controversy, street railway employees, Oklahoma City, Okla.			Do.
Controversy, entire fire department, Colorado Springs, Colo.			Do.
Controversy, machinists, Niagara Falls, N. Y.			Do.
Controversy, machinists, Tonawanda, N. Y.			Do.
Controversy, machinists, Bradford, Pa.			Do.
Threatened strike, metal trade workers, Los Angeles Shipbuilding & Dry Dock Co., San Pedro, Cal.	5,000	2,551	Referred to Industrial Section of Emergency Fleet Corporation by the National War Labor Board.
Controversy, machinists, Haynes Automobile Co., Kokomo, Ind.			Pending.
Strike, molders in various plants, Terre Haute, Ind.	75		Do.
Controversy mechanics, smelter and acid workers, and railroad workers, Tennessee Copper Co., Copperhill, Tenn.	700		Do.
Controversy, pattern makers, Du Pont Powder Co., Wilmington, Del.			Do.

The following cases, noted as pending in the November statement, have been disposed of:

- Controversy, machinists, Du Bois Machine & Tool Co., Albany, N. Y.
- Controversy, upholsterers, Waltham, Mass.
- Controversy, Goddard Tool Co., Detroit, Mich.
- Controversy, Caldwell-Wingate, Government housing, Bridgeport, Conn.
- Controversy, Tubbs Cordage Co., San Francisco, Cal.
- Strike, metal spinners, Universal Metal Springs Co., New York.
- Controversy, Rubay Co., Cleveland, Ohio.
- Strike, American Car Co., Terre Haute, Ind.
- Walkout, carpenters, 12 mills, Navy and Ordnance Department, Rochester, N. Y.
- Threatened strike, Buick plant, Flint, Mich.
- Strike, housing project, Rock Island and Moline, Ill.
- Threatened strike, Merchants' Distillery, Terre Haute, Ind.
- Controversy, American Hominy Co., Terre Haute, Ind.
- Controversy, foundry employees, Walter A. Wood Mowing & Reaping Machine Co., Hoosick Falls, N. Y.
- Controversy, National Dairy Machine Co., Goshen, Ind.
- Strike, electrical workers, coal docks, Duluth, Minn.
- Controversy, Blake-Knowles Pump Works, Cambridge, Mass.
- Controversy, housing project, Davenport, Iowa.
- Controversy, car department, Southwestern Mechanical Co., Fort Worth, Tex.
- Controversy, street railway employees, Holyoke, Mass.
- Threatened strike, butchers in retail stores and markets, New York.
- Controversy, molders, Ellwood City and Anderson, Ind.
- Controversy, street railway employees, St. Joseph, Mo.
- Threatened strike, machinists, naval gun plant, Rochester, N. Y.
- Controversy, molders, Taunton, Mass.
- Strike, machinists, four shops, Sandusky, Ohio.
- Controversy, American Chain Co., St. Marys, Ohio.
- Controversy, electrical workers, Courtland Engineering Co., Hopewell, Va.
- Strike, Marinette & Menominee Paper Co., Marinette, Wis.

IMMIGRATION.

IMMIGRATION IN OCTOBER, 1918.

In January, 1918, the number of immigrant aliens admitted into the United States decreased 9 per cent as compared with the number admitted in 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. In August there was an increase of 1.1 per cent over the number reported for July, and the number in September showed an increase of 27.2 per cent over the number for August. October compared with September showed an increase of 17.7 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	119,855	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	6.4
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	7,862	1.1
September.....	136,247	29,143	24,513	36,398	9,228	9,997	27.2
October.....	134,440	30,416	25,450	37,056	9,284	11,771	17.7
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 October, 1918, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN OCTOBER, 1918, BY NATIONALITY.¹

Nationality.	Year ending June 30—				October, 1918.
	1915	1916	1917	1918	
African (black).....	5,660	4,576	7,971	5,706	553
Armenian.....	932	964	1,221	221	7
Bohemian and Moravian.....	1,651	642	327	74	4
Bulgarian, Serbian, Montenegrin.....	3,506	3,146	1,134	150	15
Chinese.....	2,469	2,239	1,843	1,576	221
Croatian and Slovenian.....	1,942	791	305	33	2
Cuban.....	3,402	3,442	3,428	1,179	90
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	.....
Dutch and Flemish.....	6,675	6,443	5,393	2,200	339
East Indian.....	82	80	69	61	7
English.....	38,662	36,168	32,246	12,980	1,476
Finnish.....	3,472	5,649	5,900	1,867	41
French.....	12,636	19,518	24,405	6,840	706
German.....	20,729	11,555	9,682	1,992	113
Greek.....	15,187	26,792	25,919	2,602	37
Hebrew.....	26,497	15,108	17,342	3,672	186
Irish.....	23,503	20,636	17,462	4,657	504
Italian (north).....	10,660	4,905	3,796	1,074	43
Italian (south).....	46,557	33,909	35,154	5,234	62
Japanese.....	8,609	8,711	8,925	10,168	1,096
Korean.....	146	154	194	149	7
Lithuanian.....	2,638	599	479	135	8
Magyar.....	3,604	981	434	32	6
Mexican.....	10,993	17,198	16,438	17,602	3,896
Pacific Islander.....	6	5	10	17	.....
Polish.....	9,065	4,502	3,109	668	36
Portuguese.....	4,376	12,208	10,194	2,319	65
Roumanian.....	1,200	953	522	155	5
Russian.....	4,459	4,858	3,711	1,513	67
Ruthenian (Russniak).....	2,933	1,365	1,211	49	1
Scandinavian.....	24,263	19,172	19,596	8,741	685
Scotch.....	14,310	13,515	13,350	5,204	654
Slovak.....	2,069	577	244	35	1
Spanish.....	5,705	9,259	15,019	7,909	310
Spanish-American.....	1,667	1,881	2,587	2,231	349
Syrian.....	1,767	676	976	210	15
Turkish.....	273	216	454	24	1
Welsh.....	1,390	983	793	278	42
West Indian (except Cuban).....	823	948	1,369	732	105
Other peoples.....	1,877	3,388	2,097	314	16
Total.....	326,700	298,826	295,403	110,618	11,771

¹ The total number of departures of emigrant aliens in October was 3,619.

ALIENS ADMITTED TO AMERICAN CITIZENSHIP DURING FISCAL YEAR
ENDING JUNE 30, 1918.

During the fiscal year 1918, 151,449 persons were admitted to American citizenship, according to the annual report of the United States Bureau of Naturalization. Of these, 63,933 came in under the act of May 9, 1918, after enlistment in the military and naval forces of the United States. Thus 87,516 persons were naturalized under the general law, a decrease as compared with the preceding year, of 7,381. This decrease, the report says, may be accounted for by the law excluding during the war the subjects of enemy countries.

Naturalization was refused to 12,182, or 2,638 more than in the fiscal year of 1917. Action was deferred on 46,519, chiefly because of illiteracy or insufficient knowledge of the principles of our Government. The number of declarations of intention filed was 335,069, and of petitions, 110,416. Here also there was a falling off from the high figures of the preceding year. The courts canceled 136 certificates of naturalization and convicted 17 persons of violations of the law.

The special Americanization work of the bureau was carried successfully through its fourth year, Congress having recognized the national character of the cooperative efforts of the public schools with the bureau. A standard textbook for aliens who want to become citizens was prepared and is being used in the special classes provided for them.

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

CALIFORNIA.—*State Commission of Immigration and Housing. Our soldiers and the English language. A San Francisco enterprise. Sacramento, 525 Market Street, 1918. 12 pp.*

ILLINOIS.—*Department of Public Welfare. Revised accounting methods for Illinois State charitable and penal institutions, adopted by Department of Public Welfare, August 31, 1918; approved by Department of Finance, August 31, 1918. Pontiac, Ill., 1918. 76 pp.*

INDIANA.—*Industrial Board of Indiana. The Indiana Workmen's Compensation Act. Bulletin No. 2. Wm. B. Burford Print. Indianapolis, 1918. 85 pp.*

This act became operative as to all its features September 1, 1915. The bulletin gives a synopsis of the act; rules of procedure before the industrial board; a list of contested cases; report on women and children in industry in the State; and conditions and restrictions, fixed by the Industrial Board of Indiana, under which groups of employers may form mutual assurance associations or reciprocal insurance associations.

MARYLAND.—*State Board of Labor and Statistics. Twenty-sixth annual report, 1917. Baltimore [1918]. 241 pp.*

Notes that under the child-labor law 5,194 more children applied at the Baltimore office of the bureau for permits to go to work than during the preceding year, and that 90 per cent of the parents or guardians of these children gave as a reason for permitting them to go to work that they needed their financial assistance because of the increased cost of living. Inspections in Baltimore City under the 10-hour law for women revealed a total of 40,303 women employed in 1917 as compared with 26,557 in 1916, or an increase of 51.8 per cent. A table shows that 52.5 per cent of the total number were in clothing factories, 10.45 per cent in tobacco factories, 6.7 per cent in textile mills, and 4.5 per cent in the manufacture of straw hats. Sixteen strikes and one threatened strike are reported, only four of which are regarded as important. A brief review of the work of the Industrial Accident Commission is included in the report; this was noted in the MONTHLY REVIEW for March, 1918 (pp. 182-184).

MASSACHUSETTS.—*Homestead Commission. Fifth annual report, 1917. Public Document No. 103. Boston, 1918. 34 pp.*

Largely devoted to an account of what the commission has accomplished at Lowell, where an experiment has been made in building about 15 houses, at an estimated cost of from \$1,952.85 to \$2,381.65, which could be sold to workers on easy terms at from \$2,400 to \$3,100. The commission renews its request for an appropriation sufficient to allow an experiment or demonstration to be made in providing wholesome, low-cost homesteads, or "small houses and plots of ground" for "mechanics, factory employees, laborers, and others in the suburbs of cities and towns." The considerations which induce this recommendation are stated to be: (1) There are not enough wholesome, low-cost dwellings. (2) There is no prospect that present methods will ever supply enough unless the State encourages their construction. (3) The State should therefore experiment to learn whether it is possible to build wholesome homes within the means of low-paid workers.

MASSACHUSETTS.—[Insurance Department.] *Sixty-third annual report of the insurance commissioner of the Commonwealth of Massachusetts. January 1, 1918. Part II. Life, Miscellaneous, Assessment, and Fraternal Insurance. Public Document No. 9. Boston, 1918. lxxv, 327, 349a pp.*

This report is noted briefly on page 280 of this issue of the MONTHLY LABOR REVIEW.

MICHIGAN.—*Secretary of State. Forty-ninth annual report on the registration of births and deaths, marriages and divorces in Michigan for the year 1915. Lansing, 1918. 236 pp.*

MINNESOTA.—*Department of Labor and Industries. Bulletin No. 15. Court decisions, attorney general's opinions, Department of Labor advice, relative to the workmen's compensation act. St. Paul, September, 1918. 67 pp.*

This is the fifth bulletin issued by the department containing similar material. The subject matter is grouped under certain general heads, and a cumulative index enables a reference to be made to earlier discussions of the various points.

NEW YORK.—*Industrial Commission. Bureau of Statistics and Information. Labor law. With amendments, additions, and annotations to August 1, 1918. Albany, 1918. 187 pp.*

Contains the general labor law and penal provisions relating thereto.

— *Probation Commission. Manual for probation officers in New York State. Second edition, revised, 1918. Albany, 1918. 343 pp.*

— *Superintendent of Insurance. Table IX, Fifty-ninth annual report, Part III, 1918. Workmen's compensation insurance. 29 pp.*

Data from this table are given on page 280 of the MONTHLY LABOR REVIEW.

PENNSYLVANIA.—*Department of Labor and Industry. Industrial Board. Safety standards. Printing and allied industries. Operative on and after January 1, 1919. Vol. 2, No. 31. [Harrisburg, 1918.] 16 pp.*

— *The Bulletin. Pennsylvania's part in the national plan for rehabilitating and placing in industry soldiers and sailors disabled in war service. Vol. V, Series of 1918, No. 2. Harrisburg, 1918. 124 pp. Illustrated.*

A digest of this bulletin appears on pages 85 to 87 of this issue of the MONTHLY LABOR REVIEW.

PHILIPPINE ISLANDS.—*Bureau of Civil Service. Eighteenth annual report, for the year ended December 31, 1917. Manila, 1918. 116 pp.*

— *Department of Public Instruction. Bureau of Education. Eighteenth annual report of the director of education. January 1, 1917, to December 31, 1917. Manila, 1918. 165 pp.*

TEXAS.—*Conference of Social Welfare. Civic Federation of Dallas. Summaries of State laws relating largely to centralized State authority or supervision over public and private benevolent, penal, and correctional institutions, compiled by the Civic Federation of Dallas for the State Commission on Charities and Corrections Legislation appointed by Governor Hobby at the instance of Texas Conference of Social Welfare. Dallas, 1306½ Commerce Street, 1918. 175 pp. Price \$1.*

WASHINGTON.—*Bureau of Labor. Eleventh biennial report, 1917-18. Olympia, 1918. 195 pp. Illustrated.*

Gives the result of a survey made in April, 1917, of the annual cost of foodstuffs and fuel for a family of 5 in specified cities of the State (noted in the MONTHLY LABOR REVIEW for July, 1918, p. 79); reviews briefly labor conditions in Washington; gives the text of a minimum wage order affecting minors (see pages 209 to 212 of this issue of the REVIEW); reproduces testimony taken at a hearing conducted by the labor commissioner depicting deplorable conditions among Alaska cannery workers; gives a directory of labor unions; includes a table showing hours and wages under organized labor, showing general advances in wages in 1917 over 1916. Employment statistics indicate largely increased activities in the year ending Sept. 1, 1918, as compared with the preceding year. During the former period 139,555 applicants were referred to positions; 43,161 were referred in 1916-17. A table giving number of employees in 1,850 specified plants in Washington in 1918, shows 96,548 white males,

7,484 white females, and 1,926 orientals, male and female. Approximately 42 per cent of the workers were credited to the shipbuilding industry, and 17.3 per cent to saw and planing mills. Outside of miscellaneous industries, most of the females (27.7 per cent of the total females employed, not counting orientals) were working in laundries and dye works.

UNITED STATES.—*Congress. Senate. Committee on civil service and retrenchment. Hearing on S. 4637, Bill for the retirement of employes in the civil service. Aug. 28–Sept. 13, 1918. 65th Congress, 2d sess. Washington, 1918. 65 pp.*

Includes a copy of the McKellar bill (S. 4637) for the retirement of employes in the classified civil service.

— — — *Laws of Porto Rico. Message from the President of the United States transmitting copies of the acts and resolutions of the ninth legislature of Porto Rico during its first session (Aug. 13 to Nov. 26, 1917, inclusive). Washington, 1918. 228 pp.*

— *Council of National Defense. Committee on Labor. Section on industrial training for the war emergency. How the shortage of skilled mechanics is being overcome by training the unskilled. [Washington, 1918.] 64 pp. Illustrated.*

This pamphlet opens with a statement by Samuel Gompers, chairman of the Committee on Labor, on intensive training of unskilled workers as a means of overcoming labor shortage, which was published in the Official U. S. Bulletin for August 14, 1918. The remainder of the pamphlet consists of statements by manufacturing companies throughout the United States telling how they have been training their women and men workers for more efficient service within the plant.

— — — — *How to overcome the shortage of skilled mechanics by training the unskilled. Reports of successful methods in the United States, France, and England, together with extracts from the report of the section on industrial training for the war emergency to the chairman of the committee on labor of the Advisory Commission of the Council of National Defense. Washington, 1918. 46 pp. Illustrated. (Fifth reprint, Aug. 10, 1918.)*

— *Department of Commerce. Bureau of the Census. Birth statistics for the registration area of the United States, 1916. Second annual report. Washington, 1918. 96 pp. Price, 20 cents.*

— — — — *Negro population 1790–1915. Washington, 1918. 844 pp.*

— — — — *Prisoners and juvenile delinquents in the United States, 1910. Washington, 1918. 535 pp.*

— *Department of Labor. Children's Bureau. Infant mortality. Results of a field study in Waterbury, Conn., based on births in one year. By Estelle B. Hunter. Infant Mortality Series No. 7. Bureau publication No. 29. Washington, 1918. 157 pp.*

— *Training and Dilution Service. How to start a training department in a factory. Bulletin upon training and dilution, Number 1. Washington, 1918. 24 pp.*

This bulletin, written by Frank Lawrence Glynn, outlines the author's experience in establishing a training department for the Curtiss Aeroplane Company at Buffalo, N. Y. It concludes a series of publications issued by the section on industrial training, Committee on Labor, Council of National Defense.

— *Department of the Interior. Summary of soldier settlements in English-speaking countries, by Elwood Mead, consulting engineer, U. S. Reclamation Service. Washington, 1918. 28 pp.*

Special soldier settlement legislation has been enacted in every English-speaking country except the United States, and this summary of laws and policies is published with a view to helping the people of this country in dealing with this special reconstruction problem, which it is stated should be dealt with at once if "we are to meet our responsibilities as other English-speaking countries are meeting theirs."

— *Federal Board for Vocational Education. Trade and industrial education: Organization and administration. Bulletin No. 17, Trade and Industrial Education Series No. 1. Washington, October, 1918. 125 pp.*

- UNITED STATES.—*Federal Board for Vocational Education. Part-time trade and industrial education. Bulletin No. 19, Trade and Industrial Series No. 3. Washington, October, 1918. 52 pp.*
- *The home project as a phase of vocational agricultural education. Bulletin No. 21, Agricultural Series No. 3. Washington, September, 1918. 43 pp.*
- *Retail selling. Bulletin No. 22, Commercial Education Series No. 1. Washington, October, 1918. 95 pp.*
- *Vocational education for foreign trade and shipping. Bulletin No. 24, Commercial Education Series No. 2. Washington, November, 1918. 85 pp.*
- *To the soldier returning to civil life. Monograph No. 2, Vocational Rehabilitation Series No. 2. Washington, November, 1918. 14 pp.*
- *What the employers of America can do for the disabled soldiers and sailors. Monograph No. 3, Vocational Rehabilitation Series No. 3. Washington, November, 1918. 14 pp.*
- *The nation's workers and the disabled soldiers and sailors. Monograph No. 4, Vocational Rehabilitation Series No. 4. Washington, November, 1918. 14 pp.*
- *To the disabled soldier and sailor in the hospital. Monograph No. 1, Rehabilitation Joint Series No. 1. Issued by the Federal Board for Vocational Education in cooperation with the Surgeon General's Office and the War-Risk Insurance Bureau. Washington, November, 1918. 20 pp.*
- *To the household of the disabled soldier and sailor. Monograph No. 2, Rehabilitation Joint Series No. 2. Washington, November, 1918. 18 pp.*
- *Interstate Commerce Commission. Division of Statistics. Twenty-ninth annual report on the statistics of railways in the United States for the year ended June 30, 1916. Washington, 1918. 755 pp.*
- *Tariff Commission. The dyestuff situation in the textile industries. Tariff Information Series No. 2. Washington, 1918. 28 pp.*
- *The brush industry. Commercial and industrial conditions in the United States and in foreign countries—Tariff laws affecting brushes—Court and Treasury decisions. Tariff Information Series No. 8. Washington, 1918. 77 pp.*
- *United States Shipping Board. Emergency Fleet Corporation. Education and training section. The elements of wood ship construction. Parts 1 and 2. Philadelphia, 1918. 31, 44 pp. Illustrated.*

OFFICIAL—FOREIGN COUNTRIES.

- AUSTRALIA (NEW SOUTH WALES).—*Legislative Assembly. State Children Relief Board. Report of the president, for the year ended April 5, 1917. Printed under No. 18 report from printing committee, 7 March, 1918. Sydney, 1918. 47 pp. Price, 1s. 10d.*
- *New South Wales Board of Trade. Living wage (adult males), 1918. Sydney, 1918. 121 pp. Price, 3s.*

The fixation of the living wage in New South Wales is committed by the legislature to the New South Wales Board of Trade. The inquiry covered by this bulletin was confined to Sydney and its environs, and starting with the living weekly wage for the average family of two parents and two dependent children of £2 8s. (\$11.68) adopted in 1914 as a basis, it was found that the increased cost of living necessitated raising the weekly minimum wage to £3 (\$14.60).

- (QUEENSLAND).—*Department of Justice. Thirty-third report of the registrar of friendly societies and building societies, and sixth report on the valuations of friendly societies, being for the last quinquennial period. Brisbane, 1918. 24 pp.*

This report contains the list of registrations effected to September 30, 1918, and financial and numerical statements for the year 1917, together with a summary of the valuations.

CANADA.—*Privy Council. Honorary Advisory Council for Scientific and Industrial Research. Bulletin No. 5. Science and Industry. By Professor J. C. Fields. Published by the authority of the Subcommittee of the Privy Council. Ottawa, 1918. 11 pp.*

Reprint of an address to the Toronto Board of Trade, upon the growing realization of the importance of the application of science to industry, and emphasizing the further provision for advanced scientific research work in Canada.

— *Report of the administrative chairman for the year ending March 31, 1918. Ottawa, 1918. 40 pp. 5 appendices.*

On June 1, 1916, a subcommittee of the Privy Council, consisting of the ministers of trade and commerce, interior, agriculture, mines, inland revenue, and labor, was appointed, for the purpose of encouraging the scientific development of Canadian industries in order that during and after the present war these industries might be in a position to supply Canada's industrial needs and to extend her foreign trade. This report covers in general the work of the council, its special problems, the necessary man power and equipment for research work in Canada, the status of research work in Canada, and assisted research.

— *Report of the Women's War Conference held at the invitation of the War Committee of the Cabinet, February 28–March 2, 1918. J. de Labroquerie Taché, Ottawa, 1918. 46 pp.*

A condensed report of a conference of representative women from all Provinces of the Dominion who were asked to assemble to consider the relation of women to matters of national importance. Four sections were formed, dealing, respectively, with national health and child welfare, agriculture and production, national registration and industrial activity, and thrift and economy. The section on public health and child welfare strongly recommended the establishment of a federal department of health, and called for Government measures to conserve infant life and combat venereal disease. A motion for the establishment of a Federal children's bureau was introduced and strongly supported, but failed of adoption. The section on thrift and economy, besides indorsing vacant lot cultivation, daylight saving, and such other conservation measures as the Government might think advisable, asked for the issuance of war loan certificates and stamps of small denominations from 10 cents upwards, "as these could be effectively used in a campaign for a war loan amongst school children." The section on industrial activity submitted a list of occupations in which women might replace men needed for military service, and recommended trade and technical training for women. They also recommended that Government or municipal agencies should replace private employment agencies, and indorsed provincial labor exchanges coordinated with a Federal labor exchange. The section on agriculture and production pointed out that women might be used to much effect in agriculture, but that farmers could not spare time to train them; it was therefore recommended that the Government should at once provide short, intensive courses by which women might be trained for definite lines of farm work.

— (MANITOBA).—*Workmen's compensation board. Report for 1917, including also report for 1916 covering organization. [Winnipeg, 1918.] 10 pp.*

This report is noted more fully on pages 281 and 282 of this issue of the MONTHLY LABOR REVIEW.

GREAT BRITAIN.—*Board of Trade. Statistical Department. Statistical abstract for the United Kingdom in each of the last fifteen years from 1902 to 1916. Sixty-fourth number. [Cd. 9137.] London, 1918. 429 pp. Price, 1s. 9d. net.*

— *Conciliation and Arbitration Board for Government Employees. Awards of war bonuses to Government employees Nos. 1 to 64 and Memorandums of settlement by agreement Nos. A1 to A30. London, 1917–18.*

These awards cover the work of the board from the time of its formation in February, 1917, to October 28, 1918. Partial accounts of the awards made by the board are given in the MONTHLY LABOR REVIEW for August, 1917, pp. 139–142, MONTHLY LABOR REVIEW, August, 1918, pp. 84–89, and October, 1918, pp. 172, 173.

GREAT BRITAIN.—*Department of Scientific and Industrial Research. Advisory Council Memorandum on cutting lubricants and cooling liquids, and on skin diseases produced by lubricants. Bulletin No. 2. London, 1918. 9 pp.*

— *Local Government Boards for England and Wales, and Scotland. Report of the committee appointed by the president of the Local Government Board and the secretary for Scotland to consider questions of building construction in connection with the provision of dwellings for the working classes in England and Wales, and Scotland, and report upon methods of securing economy and dispatch in the provision of such dwellings. [Cd. 9191.] London, 1918. 97 pp. Price, 1s. net.*

The committee advises the formation of a strong housing department of the Local Government Board, speeding up of town-planning schemes, encouragement of public utility societies, compulsory powers for purchase of sites, reform of by-laws, and State help in arranging for supply of materials and in effecting efficient organization. In addition much technical matter is included.

— *Report of chief registrar of friendly societies for year ending 31st December, 1916. Part C. Trade-unions. London, 1918, xxxi, 48 pp.*

This report gives details with regard to number of registered unions, their membership, income, and expenditures, for the year 1916, and notes the increase in membership of over a quarter of a million, a contributory cause of which is declared to be the extended employment of women.

Following is a summary table giving the financial operations of the unions during the period 1912 to 1916:

FINANCIAL OPERATIONS OF REGISTERED TRADE-UNIONS IN THE UNITED KINGDOM, 1912 TO 1916.

Year.	Number of unions reporting.	Number of members.	Income.	Expenditures.			
				Unemployment, traveling, and emigration benefits.	Sickness and accident benefits.	Funeral benefits.	Other.
1912.....	644	2,597,772	\$18,812,643	\$3,077,521	\$2,508,014	\$676,643	\$15,983,752
1913.....	665	3,264,669	22,278,136	2,481,404	3,447,263	741,256	11,420,225
1914.....	660	3,261,050	23,812,033	4,308,614	3,308,607	802,121	12,816,074
1915.....	669	3,438,642	23,468,813	1,433,330	2,878,729	997,272	10,368,935
1916.....	669	3,703,001	24,339,834	584,778	2,752,838	1,132,167	10,509,727

— *Select committee on national expenditure. Second report (of session 1918). Printed by order of the House of Commons. London, March, 1918. 7 pp. Price, 1d. net.*

This report of the work of the Ministry of Pensions gives the estimated expense for the year 1918-19 to be £41,500,000 (\$201,959,750). It discusses the principles governing the department; cases presenting difficulty in settling; the organization and procedure of the Ministry; and makes recommendations as to administration.

— *Treasury standing committee on coordination of departmental action in regard to contracts. (Colwyn Committee.) First report. [Cd. 9179.] London, 1918. *4 pp. Price, 1d. net.*

This is a special report dealing with the question of the most suitable and economical form of contract for construction work. As a result of the investigation the committee recommends cost plus profit contracts, subject to specified safeguards, as the most feasible.

— *Working classes cost of living committee, 1918. Report. London, 1918. Cd. 8980. 28 pp. Price 3d. net.*

This is the report of the committee appointed to inquire into and report upon (1) the actual increase since June, 1914, in the cost of living to the working classes and (2) any counterbalancing factors (apart from increases of wages) which may have arisen under war conditions.

GREAT BRITAIN. (CITY OF BIRMINGHAM).—*Medical Officer of Health. Report for the year 1917. Birmingham, 1918. 89, 11 pp. Tables and charts.*

Includes reports on the inspection of factories, workshops, and workplaces.

— (COUNTY BOROUGH OF HUDDERSFIELD).—*Health Committee. Medical Officer of Health. Annual report for the year 1917. Huddersfield, 1918. 30 pp.*

Includes reports on the housing, town planning, etc., act; Food inspection and drugs acts; Factory and workshops acts; and related matter.

INDIA (GOVERNMENT OF MADRAS).—*Home Department (Judicial). Factories report, 1917. G. O. No. 1479, 21st June, 1918. Madras, 1918. 16 pp.*

Reports 468 factories on the register at the beginning of 1918. The average daily number of operatives is given as 95,920, which is an increase of 4.9 per cent over the number in 1916. Nearly 28 per cent of the total were employed in cotton and jute spinning and weaving mills. There were 23,488 women and children employed in 1917, this total being 24.5 per cent of the whole number employed. Of the 23,488, 7,274, or 31 per cent, were children. The report states that "the health of the operatives was generally good. * * * The sanitation of the factories and surroundings has greatly improved since the last report." A table appears in the report showing that the wages of both skilled and unskilled labor in factories in the Presidency were generally somewhat lower in 1917 than in 1916. The average wages of laborers in factories in the Coimbatore district in 1917 was generally somewhat lower than the wages of workers not in factories. The rates of wages prevailing in the two districts are shown in the following table:

AVERAGE DAILY RATES OF WAGES FOR SKILLED AND UNSKILLED LABOR, BY OCCUPATIONS, IN THE PRESIDENCY IN 1916 AND 1917, AND IN THE COIMBATORE DISTRICT IN 1917.

Occupation.	In factories in the Presidency.		Coimbatore district.	
	1916	1917	In factories.	Not in factories.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Skilled labor:				
Engine driver.....	41.9	38.5	56.8	64.9
Fireman.....	18.4	15.2	13.4	24.3
Fitter.....	29.4	29.1	21.5	40.6
Blacksmith.....	24.2	23.3	24.0	24.3
Carpenter.....	22.5	21.8	22.1	24.3
Bricklayer.....	20.6	21.3	20.8	24.3
Mason.....	25.9	20.8	18.9	20.3
Spinner.....	18.3	15.2	11.5	16.2
Weaver.....	18.3	18.3	27.7	32.4
Unskilled labor:				
Coolie.....	11.8	10.6	10.8	10.1
Messenger.....	9.1	8.1	8.3	16.2

The total number of accidents recorded for 1917 is 422, 9 being fatal, 11 serious, and 402 minor. This is an accident rate of 0.43 per 100 operatives employed. Most of the accidents, 148, or 35.1 per cent, were caused by machinery moved by mechanical power.

UNOFFICIAL.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *Annals, Nov., 1918. Vol. 80. Philadelphia, 1918. 164 pp.*

This entire issue is devoted to the "Rehabilitation of the wounded" which is discussed by a number of authorities upon the subject in three aspects as follows: Part I.—Rehabilitation; Part II.—Economic independence; Part III.—Elements in a constructive program for rehabilitation. Part II includes among other papers the following: Employment opportunities for Pennsylvanians disabled in war service,

by Lew R. Palmer, Acting Commissioner, Pennsylvania Department of Labor and Industry; Organization and operation of the St. Louis placement bureau for handicapped men, by G. Canby Robinson; Placing the disabled in industry, by Gertrude R. Stein.

AMERICAN FEDERATION OF LABOR. *Building Trades Department. Reports of proceedings of the tenth, eleventh, and twelfth annual conventions. Held at Baltimore, Md., November 27-29, 1916, Buffalo, N. Y., November 7-10, 1917, and St. Paul, Minn., June 5-8, 1918, respectively. 3 volumes. 108, 118, 102 pp.*

— *Metal Trades Department. Constitution and by-laws, as amended at the tenth annual convention held in St. Paul, Minn., June 6, 7, 8, 1918. Washington, 1918. 19 pp.*

— *Proceedings of the eighth, ninth, and tenth annual conventions. Held, respectively, at Baltimore, Md., November 9, 10, 11, 1916, Buffalo, N. Y., November 26-27, 1917, and St. Paul, Minn., June 6, 7, 8, 1918. 3 volumes. 60, 63, 87 pp.*

— *Railway Employees Department. Constitution and by-laws, revised April, 1918. [St. Louis, 1918.] 32 pp.*

— *Official proceedings. Fourth biennial convention, April 8 to 17, inclusive, 1918. Labor Publishing Co., 940 Chouteau Ave., St. Louis. 288 pp.*

— *Union Label Trades Department. Constitution, adopted March 30, 1909, amended, San Francisco, Cal., 1915, amended, St. Paul, Minn., 1918. Washington, 1918. 9 pp.*

— *Proceedings of the ninth, tenth, and eleventh conventions. Baltimore, Md., November 9, 10, 11, 1916; Buffalo, N. Y., November 8 and 9, 1917, and St. Paul, Minn., June 4-7, 1918. 3 volumes. 54, 69, 75 pp.*

AMERICAN MUSEUM OF SAFETY. *Safety. Bulletin, October, 1918. 14-18 W. 24th Street, New York, 1918. Pp. 191-216. Illustrated.*

The principal article in this issue of the Bulletin is The hazards of cold weather, by Chester C. Rausch, Assistant Director of the American Museum of Safety. There is also an article on Standard accident register adopted for use in Federal arsenals and navy yards.

ARMSTRONG ASSOCIATION OF PHILADELPHIA. *The Negro in business in Philadelphia. An investigation. 14 pp.*

Report of an investigation made in 1916 of 450 businesses in Philadelphia conducted by Negroes. The report gives a classification of businesses according to number and kind with tables showing the State of birth of the proprietors, their length of residence in Philadelphia, length of time business had been conducted at the address given, number of employees, square feet of floor space, estimated valuation of the tools, fixtures, etc., and of merchandise, number of owners or renters, including varying amount of rentals paid, gross annual receipts, and systems of bookkeeping used.

BEATTY, ALBERT JAMES. *A comparative study of corporation schools as to their organization, administration, and methods of instruction. 1917. 116 pp.*

This study was submitted as a thesis in partial fulfillment of the requirements for the degree of doctor of philosophy in education in the graduate school of the University of Illinois, 1917. The data collected on corporation school efficiency show that these schools "accomplish the ends for which they have been organized by supplying a more nearly adequate number of trained employees, by fitting men for promotion, by reducing the turnover of labor, by improving the output, and by decreasing the number of accidents." Generally speaking, however, while the corporation schools have inherent advantages over the public schools in incentives to effort and in having a closer relation between the materials employed and the ends sought, the public secondary schools excel in most of the essentials of instruction, in the logical and pedagogical organization of their curricula, in the matter of textbooks and lesson sheets, and in the fact that they are universal and free.

BLACK, CLEMENTINA. *A new way of housekeeping*. London, W. Collins Sons & Co. (Ltd.), 1918. 132 pp.

The author recommends that houses be constructed with a view to labor saving, and suggests some original changes in house arrangement and equipment as a means of reducing labor of the "deadening sort." She believes that the purchase of food and other necessities must cease to be individual and become cooperative, and presents a scheme whereby a group of possibly fifty householders may so order their domestic arrangements after a community plan as to obtain good food and good service at a minimum of effort and expense.

BRITAIN TRANSFORMED. *New energies illustrated*. London, T. Fisher Unwin (Ltd.), 38 pp. Illustrated. Price 6d. net.

Brief account of Great Britain's work in munitions manufacture from the beginning of the war until the date of writing, with illustrations showing various processes of the work. Special attention is devoted to "Labor's great sacrifice" and to "What women have done."

CHILD LIFE PROTECTION SOCIETY, CAPETOWN, AND CHILDREN'S AID SOCIETY, JOHANNESBURG (SOUTH AFRICA). *Child welfare conference. Report of the proceedings of the second annual conference held on May 27th, 28th, 29th, 30th, and 31st, 1918, in the Selborne Hall, Johannesburg*. Johannesburg, W. E. Hortor and Co. (Ltd.), 1918. 128 pp. Price 2s. 6d., or post free, 2s., 8d.

The papers and discussions deal with various phases of the dietary, hygiene, education, rescue work, and general welfare of infants and children.

CLEVELAND CHAMBER OF COMMERCE. *Committee on Industrial Welfare. A report on the problem of the substitution of woman for man power in industry. Approved by the board of directors July 17, 1918*. [Cleveland, 1918.] 49 pp.

This report is reviewed on pages 221 to 224 of this issue of the MONTHLY LABOR REVIEW.

CONSUMERS' LEAGUE OF CINCINNATI. *Bulletin No. 6. Home work in the clothing industry*. Cincinnati, 30 Pickering Building, August, 1918. 6 pp.

The purpose of this study was to determine the extent of home work in the clothing industry and the kind of work done in homes. It is concerned with contract shops outside the factory buildings and merchant-tailor shops, and covers the location of the shop, the number of employees, the hours of work for women and minors, sanitary conditions, fire protection, and home finishers. A total of 180 workshops were investigated, 72 of which were contract shops doing work for 21 wholesale and special-order houses, and 108 tailor shops doing work for 57 merchant tailors. The conclusion is reached from evidence secured in the investigation that there appears to be very sound argument for abolishing every form of home work for the following reasons: Because clothing sent out to homes is often made or finished under bad sanitary conditions; because there is danger of spreading disease by sending garments to homes that are under no supervision; and because the low wages paid home workers tend to reduce wages in factories and to lower the standard of living of both home and factory workers.

CUMBERLAND, W. W. *Cooperative marketing. Its advantages as exemplified in the California Fruit Growers Exchange*. Princeton, Princeton University Press, 1917. 226 pp.

The purpose of this book is to point a way toward a better system of food distribution. The structure of the cooperative associations of the citrus industry is analyzed, as in these organizations marketing machinery has been developed to a high degree. In this analysis the ordinary problems that are likely to face the cooperative association and the manner in which a successful enterprise has met them are reviewed.

D'ABERNON, LORD. *Principles of drink reform. Speech by Lord Abernon to the Church of England Temperance Society (Women's Section), on October 25, 1918*. [London.] 7 pp.

Reviews system and effects of war-time regulation of alcohol consumption in Great Britain. Four cardinal points in the system were the drastic curtailment and

scientific regulation of hours of sale, the reduction of the alcoholic content of liquor, the prohibition of treating, and the establishment of industrial food canteens, enabling the obtaining of good, well-cooked food in pleasant surroundings. Eight points are advanced to be considered in the formation of a permanent scheme of drink control.

EASLEY, RALPH M. *After-the-war problems. New York, 1918. 22 pp.*

Discusses the possibility of a socialistic settlement of problems of labor and capital after the war, a result which the author believes to be equally improbable and undesirable.

EQUAL PAY AND THE FAMILY. *A proposal for the national endowment of motherhood. London, Headley Bros., 1918. 71 pp. Price 1s. net.*

This report is reviewed on pp. 282 to 285 of this issue of the MONTHLY LABOR REVIEW.

EMERSON, HARRINGTON. *A comparative study of wage and bonus plans. The Emerson Company, efficiency engineers, 30 Church St., New York, 1917. 32 pp.*

This is the third edition of this pamphlet, which was prepared for the purpose of effecting a clearer understanding of the distinguishing features of various wage plans. It contains a discussion of time-rate and piece-rate plans, and of the various premium or bonus plans, including an example of the practical operation of the Emerson bonus plan.

GEBHART, JOHN C. *Housing standards in Brooklyn: An intensive study of the housing records of 3,227 workmen's families. Brooklyn Bureau of Charities, Tenement House Committee. October, 1918. 60 pp.*

This study, contrary to the method of most housing surveys, approaches the housing problem from the point of view of the family rather than from that of the building. While the material was contributed by four social agencies and therefore lacks some details of value from the housing standpoint, it aims to include every feature of the housing environment which has any bearing upon the physical and moral tone of the family, such as sanitary conveniences, room and land congestion, and number of interior rooms.

HART, HORNELL. *Fluctuations in unemployment in cities of the United States, 1902 to 1917. Cincinnati, 1918. Pp. 45-59. Studies from the Helen S. Trounstein Foundation, vol. 1, No. 2, May 15, 1918.*

INTERNATIONAL ASSOCIATION FOR LABOR LEGISLATION. Danish Section. (*Dansk Forening for Socialpolitik*). *Bolignoden: foredrag i "Dansk Forening for Socialpolitik," den 24. Oktober 1916, af Jens Warming. Copenhagen, 1917. 28 pp.*

A discussion of the worldwide housing shortage with particular reference to Denmark, and more particularly to Copenhagen.

— — — *Lærlingesporgsmaalet og lærlingelovens revision; foredrag i "Dansk Forening for Socialpolitik," den 9. Januar 1917, af S. Neumann. Copenhagen, 1917. 16 pp.*

A discussion of the Danish apprenticeship law and need for its revision.

JEWISH COMMUNAL REGISTER OF NEW YORK CITY, THE, 1917-1918. *Edited and published by the Kehillah (Jewish Community) of New York City, 356 Second Avenue, New York. 1597 pp. Illustrated.*

This volume was compiled to help the enormous New York Jewish community "to know itself as it is at present" as a preliminary step to future Jewish communal development. The book is not merely a presentation of facts, it is an attempt to interpret them. There are nine sections to the publication, one of which is entitled "Economic Agencies." Dr. Paul Abelson contributes two articles to this section, in one of which he points out the need for coordination and constructive work in the trades where chaotic conditions exist due in part to the industrial problems of the Jew. In another paper, speaking of the employers' organizations in the Jewish trades, Dr. Abelson says: "As the associations represent allied trades, and as they all deal with the same jobbers and retailers throughout the country, a uniformity of terms.

conditions, methods, and standards is sure to be brought about. There is also a possibility of collective interassociation effort to deal with the labor problem."

In a monograph on Jewish free loan societies, it is suggested that it would be of great advantage to merge all the free loan societies of New York into one with branches in every Jewish section of the city.

Jewish labor organizations, noncommercial employment bureaus, and vocational schools are the other subjects treated of under the "Economic Agencies" section.

KAHN, OTTO H. *Government ownership of railroads and war taxation. An address before the National Industrial Conference Board, New York, Oct. 10, 1918. 50 pp.*

Advocates the return of the railroads to private ownership under Government regulation, and the wider diffusion of taxation. Advocates consumption and stamp taxes.

MALLOCK, W. H. *Capital, war, and wages. London, Blackie and Son (Ltd.), 1918. 86 pp.*

A foreword states that the "arguments of this short volume are applications to current events of general principles which have been set forth at length in the author's recently published treatise, 'The limits of pure democracy.'" Two general subjects are discussed in this connection: Capital and the costs of war, and Capital and general progress.

MITCHELL, JOHN. *Vocational Rehabilitation for Crippled Industrial Workers, by John Mitchell, Chairman New York State Industrial Commission. Reprinted from report of the Fifth Biennial Conference of the Catholic Charities, Catholic University, Washington, Sept. 15-18, 1918. 16 pp.*

NATIONAL ASSOCIATION OF CORPORATION SCHOOLS. *Bulletin, November, 1918, vol. 5. New York, 130 East Fifteenth Street. Pp. 481-528.*

In addition to an article on the "Causes for failure of profit-sharing plans," this issue contains an outline for "The establishment of a corporation school," by G. E. Johnston, of the Western Electric Company, New York, which may be of value to those interested in the inauguration and management of such schools.

NATIONAL BUILDER. *National Builder Series. Number 4. Homes for workers. Typical developments in many parts of the United States, with plans and illustrations. Chicago, 537 S. Dearborn Street, 1918. 96 pp.*

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Arbitration and wage-fixing in Australia. Research Report, Number 10, October, 1918. 15 Beacon Street, Boston, Mass. 52 pp.*

This pamphlet, which has been carefully prepared, deals with the system of wages boards in Victoria and with the arbitration systems of New South Wales and the Australian Commonwealth. It points out that while in theory the wages boards' system accepts the principle of conciliation while the courts of arbitration have compulsory powers, in practice the two systems differ less in their methods than might be supposed. "Behind the machinery for conciliation provided in Victoria stands the compelling power of the State." On the other hand, the tendency under all compulsory arbitration systems has been to make a large and increasing use of conciliation.

Owing to the fact that trade-unions in Australia are not only given recognition by the State but are necessary for the successful carrying out of the wage regulating and arbitration systems, disputes over unionism are relatively infrequent and both the wages boards and the arbitration courts have had to do mainly with wages controversies. The claims of the advocates of wages boards that they have made strikes infrequent, have raised wages in all occupations, have abolished "sweating," and have resulted in improved factory conditions are generally approved by the authors, but the influence of other factors in bringing these results is recognized.

The compulsory arbitration system has not prevented industrial disputes but has reduced their intensity and duration. Most of the disputes are in the mining industry

and are "due mainly to the irresponsible character and temperament of the miners." On page 28 of the pamphlet is an interesting table giving the statistical results of the disputes in the mining industry of Australia. The compulsory arbitration system has brought about a higher standard of living by guaranteeing the workers a living wage. "Public opinion in Australia considers the system effective" and "there is no tendency in Australia to give up any of these methods of arbitration."

The authors point out that the success of these modes of regulating wages and preventing disputes in Australia does not necessarily mean that they would succeed in the United States where the underlying political and industrial conditions are different, but they conclude that the Australian experience "clearly establishes the value of conciliation and of some form of arbitration as a means of reducing industrial friction."

The appendices contain a list of public documents on arbitration and wage fixing issued by the Governments of Australia, an abridged text of the Commonwealth Conciliation and Arbitration Act, 1904-1915, and a summary of the important amendments made in 1918 to the Industrial Arbitration Act of New South Wales. A more extended analysis of this report will be given in a future issue of the REVIEW.

NATIONAL SAFETY COUNCIL. *Safe practices pamphlet No. 18. 208 S. La Salle St., Chicago. 15 pp. Illustrated. Price 10 cents.*

This pamphlet presents in loose-leaf form the accident hazards and the best practices for their elimination in the use of power presses. It is stated that accident records show that more cases of injury occur on power presses than on any other machine, with the possible exception of the circular saw.

NATIONAL TUBERCULOSIS ASSOCIATION. *Framingham Community Health and Tuberculosis Demonstration. Monograph No. 2. Medical Series. I. The sickness census. Framingham, Mass., June, 1918. 24 pp.*

— *Monograph No. 3. Sanitary Series. I. Vital statistics. Framingham, Mass., August, 1918. 42 pp. Folder.*

— *Monograph No. 4. Medical Series. II. Medical examination campaigns. Framingham, Mass., November, 1918. 48 pp.*

These are three of a series of monographs being published in the course of a "drive for health" carried on in Framingham, Mass., by a special committee of the National Tuberculosis Association. The committee has planned three series of publications: "First, a general series dealing with the program itself, educational, social, and economic; second, a medical series, presenting the results of the health census, medical examination, tuberculin survey, and other allied activities; and, third, a sanitary series, comprising reports and statistics of sanitary and hygienic conditions among infants, in schools, factories, etc."

NEW YORK TIMES. *Index. A master key to all newspapers. July, August, September, 1918. New York, 1918. 385 pp.*

PEASE, F. FORREST. *Modern shipbuilding terms defined and illustrated. Including a series of photographs showing the progressive steps of construction, together with an appendix on electric welding. Philadelphia, J. B. Lippincott Company, 1918. 143 pp., 82 plates.*

PROVISIONAL COMMITTEE ON RESEARCH AND EDUCATION FOR THE COTTON INDUSTRY. *Scientific Research in Relation to Cotton and the Cotton Industry. Manchester, 108 Deansgate, 1917. 95 pp. 2 appendices. Price 9d., post free.*

An argument for the obvious need of a research association in the cotton industry, covering: The cotton trade and foreign competition; The present state of textile invention; The aims of textile research; The possibilities of textile research; What the proposed association of cotton research can do; The cost of a research institute; Research and education for the cotton industry; and The effect of research on industry.

RUSSELL SAGE FOUNDATION LIBRARY. *Bulletin No. 31. Reconstruction. New York, 130 East 22d Street, October, 1918. 4 pp.*

This number of the bimonthly bulletin contains a selected bibliography on reconstruction and a brief report of the librarian for the year ending September 30, 1918.

TEXTILE WORLD JOURNAL, COMPILER. *American directory of the hosiery and knit goods manufacturers of the United States and Canada. New York, Bragdon, Lord & Nagle Co. (Inc.), 1918. 803 pp. Price \$2.*

Contains maps showing the location of mill towns and classified lists of manufacturers.

UNIVERSITY OF SOUTHERN CALIFORNIA. *Studies in Sociology. Sociological monograph No. 9. Vol. III, No. 1. Social work as a profession in Los Angeles. By Mary Chaffee. Los Angeles, University of Southern California Press, October, 1918. 10 pp.*

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.]
- Bul. 252. Wages and hours of labor in slaughtering and meat-packing industry. [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 Employment Managers' Conference, Rochester, N. Y., May 9-11, 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 night work 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.
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