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ROYAL MEEKER, Commissioner

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ANNOUNCEMENT.

With this issue (July, 1920) the MONTHLY LABOR REVIEW begins the sixth year of its existence. The REVIEW was established for the purpose of giving current information relating to labor, and publishing reports and articles too brief to be published economically as separate bulletins. It has grown so greatly in dimensions and in circulation that it has become a serious burden upon the small appropriation granted to the Department of Labor for printing. The wealth of suitable material which it is desirable and important to make known to the public through the columns of the REVIEW is so great that much has to be rejected in order to keep the REVIEW down to a reasonable size. The number of copies printed has grown steadily from 8,000 in July, 1915, to 19,000 in June, 1920. The question of charging a subscription price sufficient to pay the cost of printing has been considered very carefully by the Commissioner of Labor Statistics every year since the MONTHLY LABOR REVIEW was first published. Heretofore the Commissioner has felt that the arguments in favor of the free distribution of the MONTHLY LABOR REVIEW outweighed the arguments for charging a subscription price based on cost, in which judgment he has been supported by the Secretary of Labor. It is highly important that all those who are interested in developments vitally affecting labor should be given all information in the possession of the United States Department of Labor.

The present shortage of paper and the high cost of printing, supplies and labor, together with the imperative necessity for economizing expenditures in every line has induced the Commissioner of Labor Statistics to recommend that the MONTHLY LABOR REVIEW be put on a subscription basis, beginning with this number. This determination has been reached after the most careful consideration of all the arguments pro and con. It is expected that charging merely the cost price for the REVIEW will cut down the number of copies to be printed and distributed, thereby helping to conserve the limited paper supply so that it will not become necessary to curtail the editions of our daily newspapers and other periodicals. Certainly if the MONTHLY LABOR REVIEW is not worth $1.50 a year to any recipient he ought to be relieved of the obligation of receiving it and the Bureau of the expense of supplying it. If it is found that only a few subscribers are ready to pay $1.50 per annum for it, that will indicate that the usefulness of this REVIEW is limited and the question of discontinuing its publication will need to be considered. In charging a cost subscription price it is not desired to curtail the circulation and usefulness of the REVIEW. It is probable that, when a price is charged, the publication will be appreciated more highly than when it was distributed free of charge. It is hoped that its utilization will be intensified so that one copy may do the work formerly done by two or three copies. There is, of course, the possibility that the circulation of the REVIEW will not be decreased at all by charging a subscription price, in which event, no saving in paper will result and this effort on the part of the Bureau of Labor Statistics to preserve the imperiled paper pulp wood forests from destruction will have been made in vain. The Treasury will, however, in any event, be reimbursed by subscriptions for the cost of publishing this periodical, The publications of the Bureau of Labor Statistics other than the MONTHLY LABOR REVIEW, will be distributed free as heretofore, for the reason that they do not constitute so heavy a drain on the meager printing appropriation of the Department of Labor.

All labor departments and bureaus, workmen's compensation commissions and other offices connected with the administration of labor laws, and all organizations exchanging publications with the Bureau of Labor Statistics are entitled to one free subscription to the MONTHLY LABOR REVIEW. To all others the subscription price from July 1, 1920, will be $1.50 per annum; extra copies 15 cents. All those not entitled to receive the MONTHLY LABOR REVIEW free of charge, and who desire to subscribe, should write without delay to the *Superintendent of Documents, Government Printing Office, Washington, D. C., inclosing remittance in cash, post-office order, express money order, or check.*

ROYAL MEEKER,
Commissioner of Labor Statistics.

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MONTHLY LABOR REVIEW

VOL. XI—NO. 1 WASHINGTON JULY, 1920

Analysis of Some Effects of Increased Cost of Living on Family Budgets.

By ROYAL MEEKER, UNITED STATES COMMISSIONER OF LABOR STATISTICS, and DOROTHEA D. KITTREDGE.

DURING the period of the war prices changed so cataclysmically that it was impossible to estimate accurately the full effects of these changes on the cost of living and the welfare of workers' families. The Bureau of Labor Statistics is now endeavoring to measure some of these price changes and to interpret their meaning. It is assumed that a radical redistribution of expenditures in the family budget must have been necessary, but unfortunately it is impossible to show this redistribution statistically because no family budget study was made in 1913–14. If data were available giving the proportion of the family expenditure for food, clothing, miscellaneous, and other items in 1913–14, for comparison with the proportions found in the 1918–19 investigation made by the Bureau of Labor Statistics,[1] it would show something of the effects of the war upon the welfare of workingmen's families. Much investigation and study would be required, however, to interpret the meaning of such a comparison accurately. With advancing prices and money incomes during the war, the percentage spent for food doubtless decreased, on the average, while the percentage spent for clothing, furniture and furnishings, and most miscellaneous items increased, because food advanced in price less than these other groups of items. According to "Engel's law" the larger the income the smaller the percentage spent for food, the size of the family remaining unchanged. Hunger being assumed as the most primary of all the primary wants of man, the craving for food demands first attention. As the family income increases the standard of living is raised, and a greater percentage is spent for miscellaneous items, clothing, and furniture. This "law" has been confirmed by many investigations. It holds true whenever the prices of the groups of items in the budget fluctuate with approximate uniformity. However, when the price increases of the groups of items in the budget vary widely, as occurred during the war, "Engel's law" does not hold true. When budgets of 1901[2] are compared with budgets of 1918–19, one can not complacently assume that the percentages spent for food, clothing, house furnishings, and miscellaneous items tell the whole story. Generalizations are always dangerous, especially in the field of cost of living.

The average percentage of increase in cost of living for six large industrial cities, from December, 1914, to December, 1919, has been roughly calculated. The cities included were: Baltimore, Boston, Chicago, Detroit, Philadelphia, and New York. The average increases were found to be as follows: Food, 91 per cent; clothing, 198 per cent; rent, 25 per cent; fuel and light, 52 per cent; furniture and furnishings,

[1] See MONTHLY LABOR REVIEW for August, 1919, pp. 1–25.
[2] See Eighteenth Annual Report of the Commissioner of Labor Statistics. Cost of Living and Retail Prices of Food. 1903.

175 per cent; miscellaneous, 92 per cent. This means that at the close of 1919 food costs were almost double what they were in December, 1914; clothing costs were about three times higher; rent, one and one-fourth times; fuel and light, one and one-half times; furniture and furnishings, two and three-fourths times; and miscellaneous, almost two times. When prices change so divergently for the different groups of items, the proportion of expenditure for each group is inevitably greatly affected, even though the income increases as much as the total increase in the cost of living.

Table 1 shows the changes in the proportions spent for the different groups of items when income increases equally with the increase in cost of living. A "standard" family with an income of $1,000 in 1914 has been selected for purpose of illustration. The amounts and percentages of expenditures for the different groups of items made by this family are based on the expenditures reported in the 1901 study with some necessary estimates and adjustments. If the family with $1,000 income in 1914 maintained the same standard of living, the income must have increased to $1,954 in 1919. Without any changes in the quantities and kinds of articles consumed, the percentage distribution of expenditures would be quite markedly changed. If increases in income had not kept pace with increases in cost of living, the proportion of expenditure for some groups of articles must have been further curtailed to provide greater increases in others. It can not be assumed that in such a case the food budget would be kept unchanged at the expense of other groups of items. As pointed out above, the welfare of the family forced to economize rigidly may and often does require reductions and modifications in the food budget in order to maintain the clothing budget, which, in the lower income groups certainly, comes much nearer the minimum requirements than does the food budget. A brief study of this table will make clear how erroneous it would be to assume that the well-being of workingmen's families has greatly improved, because the 1901 budget study of the Bureau of Labor Statistics shows that workingmen's families of all income groups expended on the average 43 per cent for food, 13 per cent for clothing, 18 per cent for rent, 6 per cent for fuel and light, and 20 per cent for miscellaneous items, while the 1918–19 study shows expenditures of 38, 17, 13, 5, and 21 per cent, respectively, for these items,[3] and 5 per cent for furniture and furnishings.

[3] *Comparison of per cent various items are of total expenditure in the 1901 and 1918–19 cost-of-living surveys.*

Item of expenditure.	Per cent of total expenditure in—	
	1901 (11,156 families).	1918–19 (12,096 families).
Food	43.13	38.2
Clothing	12.95	16.6
Rent	18.12	13.4
Fuel	4.57	5.3
Light	1.12	
Furniture and furnishings	.....	5.1
Miscellaneous	20.11	21.3
Total	100.00	100.0
Total average expenditure	$617.80	$1,434.36

TABLE 1.—PERCENTAGE DISTRIBUTION OF FAMILY EXPENDITURES BASED ON $1,000 INCOME IN 1914 AND INCOME IN 1919 INCREASED EQUALLY WITH INCREASE IN COST OF LIVING.

Item of expenditure.	December, 1914.		Approximate per cent of increase in cost, December, 1914, to December, 1919.[1]	December, 1919.	
	Amount expended.	Per cent of total expenditure.		Amount necessary to expend to meet increased cost.	Per cent of total expenditure.
Food	$430	43.0	91	$821	42.0
Clothing	130	13.0	198	387	19.8
Rent	180	18.0	25	225	11.5
Fuel and light	50	5.0	52	76	3.9
Furniture	50	5.0	175	138	7.1
Miscellaneous	160	16.0	92	307	15.7
Total	1,000	100.0	95	1,954	100.0

[1] Based on data from Baltimore, Boston, Chicago, Detroit, Philadelphia, and New York.

Comparison of 1901 Budget with 1918–19 Budget.

IT IS impossible to make a complete comparison of the 1901 budget with the 1918–19 budget. The 1901 study was primarily a cost budget; the 1918–19 study put the emphasis on quantities of goods consumed. The data on items other than food collected in the 1901 and 1918–19 investigations are not sufficiently uniform to admit of comparison. Clothing items were not reported in detail in 1901, and the miscellaneous expenditures in the two studies are wholly incomparable, since the 1901 study included furniture and house furnishings among miscellaneous expenses and specified very few articles, while the 1918–19 study lists 63 articles of furniture and furnishings and 63 miscellaneous items.

Food needs are by no means a fixed demand which must be satisfied at any cost. To use a favorite term of economists, the "marginal demand" for food may and often is less insistent than the "marginal demand" for clothing and other items of the budget. It is possible that prior to the war some workers' families may have been spending an undue proportion of their income for food, and eating more than was required for healthy living. If this was the case, wise curtailments in the food budget should promote the welfare of these families. It is to be feared, however, that a too rigorous economy in the food budget, because of the compulsory restrictions and control of food, the war loan campaigns, the great advances in food prices, and the still greater advances in the prices of clothing and other groups of items in the budget, has in many instances affected detrimentally the welfare of workingmen's families. In fact, this condition was found from the examination of the diets of workingmen's families made during the war by Dr. E. V. McCollum, of Johns Hopkins University. Many of the diets examined, while sufficient perhaps to maintain adults, were so restricted in quantity and variety of food as to imperil the growth and vitality of the children.

Certain items of food were quantitatively expressed in the 1901 study, and these quantities are fairly comparable with the quantities

obtained in 1918–19. In the 1901 investigation over 18 per cent of the total food cost for the 2,567 families reporting detailed expenditures was not itemized and the quantity can not now be estimated from the cost with any degree of accuracy. In the 1918–19 study, which included 12,096 white families, practically 100 per cent of the food budget is expressed quantitatively. In cases where the housewife was unable to report quantities, the agent secured the housewife's estimate of the cost of the various foods, and by checking at once with the local grocer was able to arrive at the approximate quantity purchased.

In our climate life can not be maintained without clothing, to say nothing of health and social standards of decency and fashion. A minimum of clothing is, in fact, more necessary in the average workingman's budget for the maintenance of life and health than a considerable part of the food actually consumed. In other words, a cut in the quantities of food consumed is often less detrimental than a cut in the clothing budget. Restrictions in diet may be necessary in order to enable the family to buy healthful and decent clothes at the enormously enhanced prices. In fact, food expenditures have often been curtailed in order to provide the minimum clothing requirements. Especially is this likely to occur under conditions such as existed during the war, when clothing trebled in price and food doubled in price, while average earnings lagged behind both in many localities and in many, if not most, industries.

The proportion of income spent for rent in 1901 was much higher than the proportion found in 1918–19. To cite this decrease in the proportion of expenditure for rent as proof positive of the decline in the well-being of workingmen's families since 1901 would be quite unwarranted. The decrease is due, in part at least, to the fact that rents have increased less than other expenses, so that a smaller proportion of the increased family income goes for rent. On the other hand, housing is one of the most elastic items in the family budget, and families which are forced to economize may be driven into going into smaller and less desirable dwellings. The slight decline in the expenditure for fuel and light has no ascertainable significance.

As pointed out above, neither expenditures for furniture and house furnishings, nor those for miscellaneous expenditures, in 1901 can be compared with such expenditures in 1918–19. It is important to itemize expenditures for furniture, house furnishings, and miscellaneous articles, because some miscellaneous expenses, as those for death and sickness, are among the most essential, while expenses for furniture and moving pictures may approach the vanishing point. Hasty and too broad generalizations must be avoided. The conclusion that the well-being of workingmen's families, on the average, has improved since 1901, because the percentage of income spent for food has decreased while the percentage spent for clothes and miscellaneous has increased, can not be drawn from such items of consumption as are comparable in the two studies made by the Bureau of Labor Statistics.

In Table 2 are given the average quantities of different kinds of foods purchased in the North Atlantic States by "standard" families, consisting of husband, wife, and three children, 2, 6, and 12 years old, totaling 3.35 equivalent adult males, in 1901, and in five cities

of the North Atlantic States in 1918–19, and the quantities recommended in the minimum health and decency quantity budget, published in the June MONTHLY LABOR REVIEW (pp. 1 to 18). These foods have been divided into the five principal classes—protein foods, fatty foods, farinaceous foods, fruits and vegetables, and sweets. Since the amounts in the first column of figures do not represent the entire food budget, this column has not been totaled.

TABLE 2.—ANNUAL FOOD BUDGETS FOR FAMILIES OF 3.35 EQUIVALENT ADULT MALES, IN NORTH ATLANTIC STATES, 1901, AND IN FIVE CITIES THEREIN, 1918–19, AND HEALTH AND DECENCY QUANTITY BUDGET OF UNITED STATES BUREAU OF LABOR STATISTICS.

[Lunches bought outside are not included in these budgets. The quantities given are for dry weight.]

Article.	North Atlantic States, 1901.	Boston, 1918–19.	Bridgeport, 1918–19.	New York, 1918–19.	Portland, Me., 1918–19.	Pittsburgh, 1918–19.		Health and decency budget.
						White.	Colored.	
Protein foods.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Beef, steak, fresh	328	33.6	45.7	64.5	36.1	60.7	44.2	75
roast, fresh		73.2	62.3	57.2	47.9	51.7	32.8	63
stew, fresh		46.0	34.0	49.3	49.3	70.7	45.9	47
other, fresh		12.3	8.8	11.3	22.3	7.8	6.2	.....
corned	57	36.9	12.9	22.2	34.8	1.9	2.3	10
dried		.4	.4	.1	.4	.8	.2	1
Veal	.....	6.3	23.0	21.8	2.9	29.1	14.6	13
Pork, fresh	87	28.3	34.2	19.2	22.0	36.7	46.6	30
Ham	43	45.4	27.6	19.9	33.5	18.0	38.6	18
Poultry, hens	64	16.9	26.1	38.9	15.2	24.6	28.5	23
other		3.9	3.5	2.9	2.8	2.3	1.0	.....
Mutton, chops	.....	2.5	11.0	14.2	1.5	6.5	3.0	26
roast	.....	28.8	13.2	20.2	9.9	2.7	9.0	
stew	.....	10.7	7.2	18.1	8.6	10.7	10.3	
other	.....	.....	.4	.3	.....	.....	.....	.....
Sausage	.....	7.9	9.3	3.5	6.3	18.5	20.6	16
Liver	.....	5.8	20.4	8.4	8.7	13.7	19.8	10
Kidney	.....	1.4	.8	1.0	.1	2.2	2.7	.....
Other meat (not canned)	.....	1.6	1.8	2.8	4.2	2.6	7.5	.....
Canned beef	.....	.1	.8	.1	.7	.2	.....	.....
Canned pork	.....	.2	.1	.03	.4	.03	.....	.....
Cooked ham	.....	5.6	8.4	5.1	5.0	17.0	6.8	8
Cooked tongue	.....	.2	.....	.1	.....	.03	.....	.....
Other cooked meats	.....	13.2	8.4	6.2	19.4	11.6	15.7	10
Fish, fresh	77	96.9	46.1	55.4	93.1	28.5	26.5	41
salt		10.4	3.6	6.0	18.7	5.2	2.1	5
salmon, canned		6.5	10.0	8.2	7.8	10.4	7.7	10
tuna, canned		1.7	2.4	1.3	1.1	3.0	2.0	2
Eggs	121	122.3	111.2	113.9	88.4	92.3	72.0	102
Cheese, American	17	8.7	13.6	7.3	10.9	13.0	10.9	14
other		1.0	3.6	3.5	1.2	7.3	3.0	6
Peanut butter	.....	3.8	2.6	.8	3.8	2.8	2.7	5
Gelatin	.....	1.1	.7	.7	1.1	.7	.6	1
Milk	841	1,006.5	1,104.6	1,239.5	926.6	717.4	396.9	1,602
Milk, skim	.....	.....	.....	5.6	.6	.....	.....	.....
Buttermilk	.....	6.0	8.8	5.2	18.8	22.4	76.2	.....
Evaporated milk	.....	55.1	47.0	39.0	38.8	52.1	33.3	65
Oysters	.....	1.0	1.6	2.2	1.4	3.4	3.4	5
Other sea food	.....	1.8	3.5	1.2	2.9	.1	.....	6
Total, protein foods	.....	1,704.0	1,719.6	1,877.1	1,547.2	1,348.7	993.6	2,214
Fatty foods.								
Butter	104	84.0	86.5	78.2	85.6	62.5	43.6	80
Oleomargarine	.....	2.8	3.2	2.8	6.1	16.1	9.9	13
Other butter substitutes	.....	.5	.4	3.0	10.1	.3	.....	4
Mazola, Wesson oil, etc.	.....	3.9	6.2	6.2	.1	4.3	.7	7
Lard	64	25.1	27.8	10.8	31.6	34.4	48.6	37
Lard compound	.....	1.2	3.7	1.3	23.4	6.7	11.0	13
Lard substitutes	.....	3.4	5.8	7.0	5.7	5.6	10.0	7
Bacon	44	11.2	15.1	14.4	5.6	19.5	45.6	19
Pork side, dry		9.4	2.3	.6	.5	.7	2.4	7
pickled		2.7	.1	.2	25.3	.1	.03	2
Cream	.....	2.0	4.2	3.8	2.6	1.4	1.6	3
Ice cream	.....	5.9	10.4	8.9	6.8	12.2	11.0	8
Chocolate	.....	.4	.4	.7	.5	.3	.2	1

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Article.	North Atlantic States, 1901.	Boston, 1918–19.	Bridgeport, 1918–19.	New York, 1918–19.	Portland, Me., 1918–19.	Pittsburgh, 1918–19.		Health and decency budget.
						White.	Colored.	
Fatty foods—Concluded.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Nuts		1.1	3.5	2.0	3.2	3.9	2.0	.....
Cocoa		8.5	7.3	5.6	4.5	3.4	2.5	5
Total, fatty foods		162.1	176.9	145.5	211.6	171.4	189.1	206
Farinaceous foods.								
Flour, wheat	543	352.6	130.3	78.3	341.9	158.7	285.3	332
rye		8.6	6.4	2.8	21.3	3.8	1.9	12
other		30.0	12.6	7.3	73.6	14.6	12.8	46
Corn meal		40.2	20.2	14.3	67.6	29.7	88.7	25
Hominy		.01	.3	1.3	1.5	.4	4.5	12
Cornstarch		3.6	6.2	4.9	8.4	6.4	4.8	4
Cereal, wheat		4.5	8.4	11.9	7.1	4.1	1.1	7
corn		4.3	7.2	7.3	7.0	5.8	5.1	4
oats		81.8	27.9	41.4	70.2	30.8	37.4	58
other		.1	1.8	.7	.2	.2	.....	.....
Crackers		18.1	13.7	11.3	16.3	18.7	8.2	18
Macaroni		31.5	26.0	32.3	17.6	26.3	18.8	33
Rice	23	27.2	25.6	40.4	33.0	32.3	39.3	44
Tapioca		4.0	2.3	2.0	3.3	1.3	1.0	2
Bread, wheat	302	352.0	427.7	445.3	240.2	530.9	394.1	457
rye		5.3	239.5	124.3	6.3	85.1	4.3	22
other		8.2	2.6	11.4	4.8	1.0	1.1	2
Rolls and buns		6.9	8.5	95.5	6.5	14.5	2.2	22
Cakes and cookies		14.5	19.5	21.1	20.9	20.7	9.0	15
Pies		13.3	12.7	7.6	1.8	17.7	7.1	4
Total, farinaceous foods		1,006.7	999.4	961.4	949.5	1,003.0	926.7	1,119
Fruits and vegetables.								
Fresh:								
Apples		174.0	96.0	75.6	208.8	193.2	184.8	219
Peaches		6.5	18.2	19.5	9.1	35.1	32.5	28
Bananas		17.4	53.4	36.3	34.8	30.6	18.9	54
Lemons		4.2	9.0	8.4	4.2	9.6	8.4	10
Oranges		17.6	25.6	26.4	18.4	19.6	11.6	100
Grapes		23.3	11.0	9.3	9.0	21.1	17.8	14
Berries		9.4	12.4	9.9	22.8	12.4	6.6	51
Cantaloupe		2.9	3.7	5.7	1.1	5.7	11.7	10
Watermelon		1.1	4.4	2.2	8.8	3.3	15.4	15
Other fresh fruit		5.1	10.6	9.9	19.0	15.8	20.9	68
Potatoes, white	804	869.8	659.5	602.8	843.3	745.8	542.8	738
sweet		7.8	12.1	11.9	6.2	22.5	83.3	48
Cabbage		65.1	53.8	52.6	59.1	65.4	63.3	82
Spinach		16.4	34.4	7.6	12.8	3.6	8.8	78
Peas		4.0	10.0	10.0	16.0	6.0	3.0	11
Beans, string		52.0	21.0	20.0	57.0	29.0	50.0	37
Tomatoes		34.2	50.9	46.3	69.7	92.5	63.2	130
Onions		72.6	56.3	68.2	71.7	74.3	55.0	74
Corn		24.6	42.0	18.6	52.2	26.4	24.0	36
Lettuce		4.7	5.6	9.8	4.2	9.2	6.7	10
Celery		3.5	6.5	5.4	2.7	12.1	6.5	7
Beets		8.7	12.3	12.0	24.1	14.4	13.5	24
Carrots		24.0	20.4	25.6	29.3	23.5	8.0	52
Turnips		23.6	13.7	13.6	46.6	8.8	12.2	40
Sauerkraut		.3	1.6	3.7	.03	9.6	6.6	
Asparagus		1.2	1.5	1.0	.1	1.0	.03	27
Other fresh vegetables		16.1	11.6	8.0	50.0	6.8	2.5	
Canned:								
Peaches		4.0	4.3	4.1	3.2	5.9	8.9	23
Pineapple		1.3	.9	.6	2.7	2.4	3.1	2
Other canned fruit		1.4	2.2	1.1	1.6	2.0	2.0	22
Beans		5.8	9.3	6.9	5.5	13.5	6.4	5
Peas		6.2	9.9	11.0	6.6	14.5	9.6	10
Corn		5.3	7.4	7.3	10.1	12.3	13.9	19
Tomatoes		12.8	19.4	21.5	8.5	22.1	17.4	25
Asparagus		.....	.3	.3	.....	.1	.....	.....
Other canned vegetables		.3	1.0	1.7	1.0	1.2	2.0	.....
Canned soup		12.2	7.1	6.5	5.7	6.3	1.8	5

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Article.	North Atlantic States, 1901.	Boston, 1918–19.	Bridgeport, 1918–19.	New York, 1918–19.	Portland, Me., 1918–19.	Pittsburgh, 1918–19.		Health and decency budget.
						White.	Colored.	
Fruits and vegetables—Concld.								
Dried:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Apples	.....	0.7	0.3	0.8	.....	0.8	0.6	.....
Prunes	.....	15.1	12.8	21.7	11.8	10.7	12.6	24
Raisins	.....	13.9	8.1	4.5	11.3	6.2	3.7	11
Peaches	.....	.3	.2	1.3	.8	.9	.8	.....
Other dried fruit	.....	.9	.3	1.5	1.8	1.5	.....	.....
Navy beans	.....	25.5	19.5	13.9	60.0	22.1	22.7	24
Peas	.....	3.1	1.8	3.7	5.6	1.3	2.0	5
Lima beans	.....	24.7	3.1	7.1	9.1	8.1	6.9	15
Total, fruits and vegetables	.....	1,623.6	1,365.4	1,235.8	1,826.3	1,629.2	1,392.7	2,153
Sweets.								
Sugar	241	129.0	128.8	139.4	138.5	164.6	160.1	163
Sirup, molasses, etc	37	29.8	17.2	12.0	50.3	10.7	17.7	36
Jelly	.....	6.0	7.3	5.6	3.6	7.5	3.1	10
Candy	.....	11.4	11.2	10.3	8.8	11.1	6.9	10
Total, sweets	.....	176.2	164.5	167.3	201.2	193.9	187.8	219
Miscellaneous.								
Tea	13	18.0	10.1	14.4	16.4	8.0	6.0	10
Coffee	40	19.3	36.3	37.8	28.7	48.2	31.8	40
Coffee substitutes	.....	.1	.8	.6	.1	.7	.1	.....
Unclassified food	.....	1.2	1.8	.9	2.6	.5	.4	.....
Total, miscellaneous	.....	38.6	49.0	53.7	47.8	57.4	38.3	50
Grand total	.....	4,711.2	4,474.8	4,440.8	4,783.6	4,403.6	3,728.2	5,961

It is interesting to note the variations in diet between cities. New York is lowest in the total quantity of fruits and vegetables used. An average of less than 1.5 pounds a week of cabbage, spinach, lettuce, and celery, the principal leafy vegetables in the list, is purchased for a family of five in New York. Other cities, however, show only a slightly larger consumption of these leafy vegetables. Of navy beans the average family consumption ranges from 13.9 pounds per year in New York to 25.5 pounds in Boston and 60 pounds in Portland, Me. The quantity of lima beans varies from 3.1 pounds in Bridgeport to 24.7 pounds in Boston. Under "other fresh vegetables" an item of 50 pounds is listed for Portland, Me., which is by far the largest item under this heading. An examination of the schedules collected from Portland, Me., shows this quantity to be made up largely of pumpkins and squashes. The amount of corned beef reported ranges from 1.9 pounds per year per family in Pittsburgh to 34.8 pounds in Portland, Me., and 36.9 pounds in Boston. The "boiled dinners" of New England probably account for the differences. The quantities of veal and mutton consumed also vary considerably in different localities.

The diet of the colored families in Pittsburgh is strikingly different from that of the white families in any city. For instance, the dietaries of the colored families show a lower consumption of whole milk and butter and a higher consumption of fresh pork, bacon, lard, butter-

milk, cornmeal, and hominy than the dietaries of the white families in any city in the list.

A few of the changes in quantity between 1901 and 1918–19 are worthy of special comment and Table 3 has been prepared to show these comparisons more easily.

TABLE 3.—SUMMARY COMPARISON OF PRINCIPAL ITEMS OF FOOD PURCHASED BY FAMILIES OF 3.35 EQUIVALENT ADULT MALES IN NORTH ATLANTIC STATES, 1901, AND IN FIVE CITIES THEREIN, 1918–19, AND HEALTH AND DECENCY QUANTITY BUDGET OF UNITED STATES BUREAU OF LABOR STATISTICS.

Budget.	Fresh beef.	Fresh pork.	Salt pork.[1]	Poultry.	Eggs.[2]	Milk.[3]	Butter.	Butter substitutes and compounds.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
North Atlantic States, 1901	328	87	87	64	121	841	104	.....
Boston, 1918–19	165	28	69	21	122	1,007	84	3
Bridgeport, 1918–19	151	34	45	30	111	1,105	87	4
New York, 1918–19	182	19	35	42	114	1,240	78	6
Portland, Me., 1918–19	156	22	65	18	88	927	86	16
Pittsburgh (white), 1918–19	191	37	38	27	92	717	63	16
Pittsburgh (colored), 1918–19	129	47	87	30	72	397	44	10
Health and decency budget, United States Bureau of Labor Statistics	185	30	46	23	102	1,602	80	17

Budget.	Lard.	Lard substitutes and compounds.	Flour and meal.	Bread.	Rice.	Potatoes.	Sugar.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
North Atlantic States, 1901	64	.....	543	302	23	804	241
Boston, 1918–19	25	5	431	366	27	870	129
Bridgeport, 1918–19	28	10	170	670	26	660	129
New York, 1918–19	11	8	103	581	40	603	139
Portland, Me., 1918–19	32	29	504	251	33	843	139
Pittsburgh (white), 1918–19	34	12	207	617	32	746	165
Pittsburgh (colored), 1918–19	49	21	389	400	39	543	160
Health and decency budget, United States Bureau of Labor Statistics	37	20	415	481	44	738	163

[1] Including ham, bacon, dry and pickled side.
[2] 1 dozen equals 1.5 pounds.
[3] 1 quart equals 2.2 pounds.

Fresh beef, fresh pork, salt pork, and poultry show, in every instance, a less quantity purchased in 1918–19 than in 1901, with the exception of salt pork in Pittsburgh (colored), which is identical with the 1901 average. In many cases the decrease in quantity is striking, such, for instance, as in fresh pork from 87 pounds in the North Atlantic States in 1901 to 19 pounds in New York and 22 pounds in Portland, Me., in 1918–19. The amount of eggs purchased per family is smaller in all but one instance—Boston—in which it is practically the same. In all the protein foods which are comparable in the two periods there has been a decline in quantity with the exception of whole milk, which, in Boston, Bridgeport, New York, and Portland, Me., has increased over the 1901 average annual quantity. This is the most encouraging feature throughout the comparison, although in all of the cities included in the above table the quantity falls considerably below the amount of milk specified in the "health and decency" budget. The allowance of 1,602 pounds of milk per year is the standard recommended by the Office of Home Economics of the Department of Agriculture, and is the equivalent of 2 quarts

of milk per day. The quantity of milk consumed by colored families in Pittsburgh is extremely low.

A large decrease is also shown in all the cities in the amounts of butter and lard purchased by white families. On first thought it might seem that the decrease in butter is probably made up by the use of oleomargarine, nut margarine, etc., and in lard by Crisco, Snowdrift, etc. However, figures on butter and lard substitutes and compounds show them to have been used in too small amounts to play any considerable part in making up the decrease in fats, in any of the cities except Portland, Me., where the quantities of these substitutes bring the consumption almost up to the total of lard and butter reported in 1901. The food value of substitute fat, however, can not be regarded as the equivalent of butter, as these substitutes are not so readily assimilable and are usually quite deficient in vitamines.

The quantities of bread, flour, and meal purchased are not comparable separately, but rather indicate the custom in different communities to buy bread or to do home baking. Rolls and buns were not reported in large quantities except in New York City, and they have not been included in the summary table. Figuring roughly that three-fourths of a pound of flour equals one pound of bread, the total consumption of breadstuffs in the different cities does not vary greatly, and, although somewhat less than the 1901 average, the quantities, on the whole, do not appear to have been radically reduced. In all the cities except Portland, Me., and Boston, the amount of white potatoes has fallen below the 1901 average. Rice is the only food in the comparison the quantity of which in all cities shows an increase over the 1901 quantity. The consumption of sugar has decreased greatly in all cities, due largely to the shortage incident to the war.

It can not be said that the well-being of American workingmen's families has been lowered by reason of the decreased consumption of proteins, fats, and sugar, and by the profound changes in the consumption of other foods. The increase in the use of milk is a distinct improvement in the diet and makes up for some of the loss in calories and in tissue-building foods through the decrease in the eating of meats. The decline in meat eating is to be commended, even though it may have diminished the number of calories furnished by the present diet. No doubt other and cheaper foods have been substituted, in part at least, to make up for the loss in calories resulting from diminishing the amount of meat, fats, and sugar. A net loss in the richness or calorie content of the diet has probably taken place. Unfortunately the 1901 budget is so lacking in detail that we can not estimate its calorie value.

It is possible, however, to make a comparison of the total number of pounds of food purchased in 1918–19 by the standard family in each of the five North Atlantic cities. In none of the cities listed here does the total reach that of the health and decency budget of the Bureau of Labor Statistics. In order to determine the sufficiency of the food purchased by the standard family in these cities, a calorie analysis has been made, which can be compared with the standard health and decency food budget. The following table gives a rough approximation of the number of calories furnished by the principal kinds of food purchased in each city, together with the total calories purchased per man per day.

TABLE 4.—NUMBER OF CALORIES IN FOOD PURCHASED PER EQUIVALENT ADULT MALE PER DAY IN 1918–19 IN FIVE CITIES IN THE NORTH ATLANTIC STATES, AND IN MINIMUM HEALTH AND DECENCY QUANTITY BUDGET OF THE UNITED STATES BUREAU OF LABOR STATISTICS.

Source of calories.	Boston.	Bridgeport.	New York.	Portland, Me.	Pittsburgh (white).	Pittsburgh (colored).	Health and decency budget.
Protein foods	665	620	670	595	555	450	705
Fatty foods	415	440	360	550	430	490	535
Farinaceous foods	1,185	1,075	1,025	1,150	1,095	1,075	1,295
Fruits and vegetables	420	325	310	475	385	335	520
Sweets	240	230	235	275	275	265	300
Lunches	40	25	105	20	35	35	.....
Total[1]	3,065	2,810	2,800	3,170	2,870	2,745	3,480

[1] Total includes small percentage for error.

The number of calories in the above table has been computed by the "quick method of calculating food values" worked out by Miss Caroline L. Hunt, of the Office of Home Economics of the Department of Agriculture, and published in the Journal of Home Economics for May, 1918. The sum of the calories by food groups will not equal the total shown in the table, since the total includes a small percentage of error which it is necessary to allow in computing food values by the short method.

When due allowance, in the number of calories purchased per man per day, is made for unavoidable waste in preparation, the food actually consumed in these cities of the North Atlantic group falls considerably below the 3,500 calories generally recognized as the standard by food experts.

A Federal Personnel Policy.[1]

By W. E. Mosher, Ph. D.

THE bill transmitted by the Reclassification Commission, together with a number of recommendations that appear in the body of the report proper, provide in skeleton form the basis of a comprehensive and progressive employment policy, such as is worthy of the Federal Government. The commission has evidently made the effort not to work out in detail a definite system for controlling and supervising employment relations but rather to lay the foundation for a flexible policy that may be adapted to the changing and varied needs of different organizations. It is the purpose of this paper to bring together the various provisions of the bill and the recommendations to be found in the report and to indicate by an elaboration of the skeleton form in what way the proposed policy may be expected to operate to the advantage of more efficient and more democratic administration.

The United States Government, engaged in administering the public business of the country, must expect nothing less than thoroughly efficient administration from those placed in charge of the different organizations. It must recognize that such administration implies granting authority to those occupying positions of responsibility and also that there should be no unnecessary restriction on the exercise of this authority. This consideration logically brings about decentralization of authority. Except with regard to entrance examinations now conducted by the Civil Service Commission, decentralization concerning personnel matters has taken place in a very considerable degree.

On the other hand, a democratic government must function in its dealings with its own employees democratically and according to the principles of justice. Generally speaking, it must provide equal pay for equal work, equal opportunity for advancement, a reasonably uniform administration of employment policies, some sort of machinery for adjusting grievances and controversies, and finally some means of enlisting the interest and cooperation of the employees with reference to work, compensation, and working conditions. These considerations logically bring about a large measure of centralization of authority.

The absence of any such centralization was obviously the cause of a considerable amount of the inconsistency and injustice discovered by the Reclassification Commission in the course of its investigation of employment conditions. The statistical data collected from questionnaires, for example, show how universal are the inconsistencies as to salary schedules. The principle of equal pay for equal work is violated at every turn. Further investigations carried on by the commission brought to light the widest possible discrepancies as to other policies. The variety of methods pursued in the administration of leave privileges, payment for overtime, night work, etc., are illustrations bearing on this point. From private and

[1] Based on the Report of the Congressional Joint Commission on Reclassification of Salaries (H. Doc. No. 686), which was noted in the Monthly Labor Review for April, 1920, pp. 105–108.

public hearings may also be adduced a surprising amount of testimony as to the autocratic control exercised by not a few administrative officials. Arbitrary restrictions on personal freedom, personal favoritism in determining promotions and salary increases, the suppression of individual opinions and the reward of docility are some of the more common charges brought against administrators. Whether these charges are true or not, they point to the fact that large groups of employees feel that they are being treated unjustly. As is well known to those interested in employment problems, grievances, whether real or imaginary, are potent factors in undermining the morale of the working force.

Even brief reference to the findings of the Reclassification Commission will show the chaotic conditions that have resulted in large measure from the general decentralization of authority with reference to personnel matters. Decentralization has naturally brought about the division of the working force into some 40 autonomous units; but the 100,000 or more employees in Washington are becoming more and more aware of the fact that they are working for one and the same employer, and they demand with right and reason that they be treated according to uniform and just standards. To make possible such treatment, it is clear that a measure of centralization must take place. With this in view, the Reclassification Commission recommends that responsibility for supervising all major matters affecting the status of the employees be vested in a central employment agency, preferably the Civil Service Commission.

The Reclassification Commission evidently recognized the danger of transferring so much authority with reference to personnel matters to an agency outside the organization unit. It provided, therefore, a broad basis for the closest possible cooperation between administrative heads and the central agency. According to the plan suggested, the Civil Service Commission is to have the right of supervision and review of all important decisions as to status. This covers initial allocation to positions within the new classification, entrance examinations, revision of classification of positions and salary schedules, the probationary period, efficiency-rating systems and efficiency ratings themselves, as well as the promotional examinations, certification of eligibles, transfers, and, finally, appeals with regard to any and all of these matters. But it is definitely prescribed that the central agency shall cooperate with the administrative officials or their representatives at every stage. The following provisions appearing in the bill are based on the recognition of the right of the administrator to make suggestions and raise objections concerning matters of status:

Subject.	*Provision for cooperation.*
Initial allocation of present employees to the new classification, originating with the Civil Service Commission.	"In case of the disapproval of such designation with regard to any such employee the head of the department shall certify to the commission the facts upon which such disapproval is based and the suggested class and the position therein in which such employee should be placed."

Subject.	*Provision for cooperation.*
Efficiency rating systems	"The commission after consultation with the heads of the departments shall establish a uniform system of efficiency rating."
Appointments by transfer	The appointment shall take place, "unless the commission approves the appointing officer's written objections to such appointment."
Appointments by reinstatement	The appointment shall take place, "unless the commission approves the appointing officer's written objections to such appointment."
Promotions by competitive examination among those in the service.	The appointment shall take place, "unless the commission approves the appointing officer's written objections to such appointment."
Appointments by open competitive examination.	The appointment shall take place, "unless the commission approves the appointing officer's written objections to such appointment."
Appeals	"The commission shall * * * give adequate notice and afford an adequate opportunity for any interested party to be heard" (in connection with a grievance, dispute, or controversy).

From these and similar provisions, when taken in conjunction with established civil-service procedure, it will appear that the administrative officials will exert much influence in the selection of the personnel. They are to assist in determining the original and promotional examinations, including the weight to be attached to personality, previous experience, efficiency records, etc. Through his influence as to examinations, the head of the department may set up such standards as will assure him of a satisfactory list of eligibles. He has the privilege of making reasonable objections to any or all names on eligible lists. Then it is within his power to dismiss probationers. It is also possible for him through the efficiency rating system that operates under his immediate control to weed out misfits and inefficient appointees.

The basis is thus laid for a consistent policy of cooperation between the central agency and the heads of the organizations. Most of the

latter will agree that experience in recent years goes to prove that the Civil Service Commission has the faculty of cooperating in a fruitful way with the departments, and also that it is interested in measures and decisions affecting the personnel that go to further efficiency in carrying on the business of the Government. Evidently the only possible method of bringing about a reasonable uniformity in personnel administration and of promoting at the same time efficiency in the organizations must come through some such cooperative procedure.

Extension Agents.

IN order to bring about mutual understanding as the fundamental basis of such procedure, two recommendations are made by the Reclassification Commission, one of which appears in the bill itself, the other as a part of the supporting argument in the report. The latter urges the appointment of representatives of the Civil Service Commission who would be delegated as its agents to the departments and the large independent establishments. They might be called extension agents. They should be carefully selected, not alone with reference to their understanding of the rules and regulations and policies of the Civil Service Commission, but also with reference to the organization, the work, and the personnel of the department to which they are assigned.

In the words of the report:

> If the Civil Service Commission is to be in charge of promotional examinations, to develop a system of transfers, to supervise efficiency ratings, to coordinate training opportunities, and to serve as a court of appeals, it is evident that it must have intimate knowledge of the organization, the policies, and the personnel of the various departments. The duty of getting this knowledge would rest on the extension agents. In fact, the success of the whole undertaking will depend to a large degree on their tact and resourcefulness in interpreting what may at times appear to be diverging points of view.

Through the medium of its agents the Civil Service Commission will be in a position to act as a clearing house for all matters pertaining to its own functions. Improvements in efficiency-rating systems, which are generally considered to be in the experimental stage at the present time, could be adapted to the needs of the different organizations. Successful training methods which had been worked out in one unit might be transplanted to others. A service-wide study of training needs and opportunities would naturally lead to better coordination and a nicer adjustment between demand and supply. Careful investigations of the causes of voluntary separations would suggest remedies for this most serious drain on personnel efficiency. Such investigations would also enable the Civil Service Commission to arrange for a system of transfers that would provide against the seasonal demands of many of the departments. Finally, without extension agents the commission would be unable to keep the classification of positions current and to interpret its own provisions with any degree of uniformity in the various bureaus and establishments.

This brief survey will go to show how essential the extension agents will be for the proper administration of the proposed policy. It will also indicate in what way intimate contact and mutual understanding may be maintained between the Civil Service Commission and the organization units.

Advisory Council.

SECONDLY, the bill itself provides for the appointment of an advisory council that shall cooperate with the Civil Service Commission in connection with the administration of regulations and policies already adopted and the determination of new ones. The Advisory Council is to consist of 12 members, 6 of whom are elected by the employees and 6 appointed by the President from the group of administrative officials. Its functions are described in the bill in the following way:

> The commission shall refer to the council for its advice all proposed changes in rules and regulations affecting employees * * *. The council may, when it deems proper, make suggestions to the commission for its consideration in connection with or in relation to any matter within the jurisdiction of such commission and which relates to employees.

The Advisory Council will thus bring to bear on all proposed changes the judgment of responsible representatives of the two groups who are immediately concerned in the conduct of the business of government and are presumably most competent to influence the evolution of new policies and to suggest changes in those already in operation.

If the bill should be enacted into law, the immediate task of the Civil Service Commission and the Advisory Council would be to work out the details of policies that are provided for in the bill only in most general terms. The Reclassification Commission evidently thought it better to prescribe general provisions, leaving the details to the discretion of those most fitted to work them out, thus making possible the introduction of revisions with the least possible difficulty. No specific regulations appear, for instance, as to how the initial allocation shall take place, nor as to the type and nature of the efficiency-rating systems, nor are any methods suggested as to the manner of handling appeals. The Advisory Council would, therefore, have a most important function at the very outset in aiding in the formulation of definite policies as to these matters.

By the adoption of these two provisions—that is, a sufficient number of trained extension agents and the establishment of an Advisory Council—cooperation would become, so far as the Civil Service Commission is concerned, not a matter of good will or chance, but rather the accepted and established procedure. Employment policies, after being put to the test, may prove to be unsuited to meet the demands of the situation for which they were intended. The Advisory Council, and the Civil Service Commission through its own agents, would be quick to recognize inadequacies and would devise revisions of these policies that would be better adapted to the need. Together they would constitute an adjustment agency, admirably suited to perfect personnel policies in accordance with the demands of a constantly and necessarily changing set of conditions. The need of such an agency is obvious to any observer of the more or less rigid employment policies now in operation in the Federal civil service, resulting as they do in costly abuses and serious defects.

Administrative officials are naturally and rightfully jealous of their prerogatives. Many fear that the Civil Service Commission, if endowed with greater power, will hamper administrative efficiency. Such officials overlook the fact that the Civil Service Commission has pretty generally shown its capacity for cooperation, even though its

resources have been woefully limited by the meager appropriations provided by Congress. The fact of cooperation in the past should more than overbalance the fear of arbitrary exercise of authority in the future, particularly when centralization of final authority as to personnel policies is the only possible method of avoiding such chaotic and unjust conditions as now exist. It would undoubtedly work detriment to the whole service if this centralization should be granted with restrictions and limitations intended to make abuse impossible, for common experience goes to prove that legislation aiming to provide in advance against the possibility of administrative abuse is all too likely to produce worse abuses than it was intended to correct. The present restrictions on transfers might be cited as an illustration of such an effort to prevent bad administration by legislation.

The Reclassification Commission therefore recommends centralization of responsibility for personnel administration in the Civil Service Commission. It urges the establishment of definite machinery that will serve as a means of bringing about mutual understanding and cooperation between the Civil Service Commission and the executive officials. Finally, in view of the enlarged responsibility of the commission it specifically recommends increased salaries for both commission and staff, which will enable the commission to employ high-grade specialists who are fitted to carry on the duties and functions imposed by the provisions of the bill.

Apart from cooperation with the Civil Service Commission, the Advisory Council is made competent to act as a clearing house with regard to any personnel matters that affect more than one establishment. In this it would enjoy the cooperation of the personnel committees selected in the different organization units in accordance with a policy discussed in the following paragraphs.

Although the report contains no detailed discussion of possible lines along which the Advisory Council might function in this broader field, it has been suggested that the council could very properly serve as a forum for the consideration of general matters such as the following: The development and pooling of cooperative stores in various departments; the handling of restaurant facilities; the development of insurance schemes; the working out of a staggered-hour system, necessary on account of inadequate transportation facilities; the consideration of the daylight-saving movement in Washington; the general problem of arousing an esprit de corps, etc. The need of an agency to give voice to widespread demands in these and other directions has long been felt. When the agency is once established, it would doubtless serve as an organized means of articulation with regard to a large number of matters that are found to arise when such an army of people are associated in a single enterprise, as in Washington.

Personnel Committees.

IN ACCORDANCE with one of the provisions of the bill, the Advisory Council is charged with the duty of appointing personnel committees in the various organization units and such subdivisions thereof as the council may determine. One-half of the members of each personnel committee is to be chosen by and among the employees exercising supervisory powers, and the other half by and among

those not exercising such powers. Although the functions of the personnel committees are prescribed in only very general terms, it is suggested in the report that they might properly cooperate with (1) the Advisory Council, (2) the Civil Service Commission, and (3) the organization unit with which they are identified.

1. *Cooperation with Advisory Council.*—The personnel committees are modeled more or less closely after the Advisory Council and are, therefore, akin to it. Problems and suggestions that go beyond the scope of the organization of which the personnel committee is a part, would naturally be referred to the Advisory Council for its consideration. The committees would also supply the council with information and would assist in the formulation of new personnel policies that might affect more than one department.

2. *Cooperation with Civil Service Commission.*—It is suggested by the Reclassification Commission that the Civil Service Commission might advantageously refer, for initial consideration and recommendation, any appeals concerning decisions that lie within the scope of the commission to the personnel committee of the organization unit concerned. In case of disagreement, it could be carried to the committee of the next higher unit and finally to the commission itself. An arrangement of this sort would probably relieve the Civil Service Commission of the obligation of settling a considerable number of controversies that would otherwise have to be decided by it. It is also very likely that the personnel committee dealing with a grievance or controversy practically at its source—that is, within the unit where the difficulty arose—could handle such a grievance most expeditiously and with a minimum amount of friction. This would be particularly true if the extension agent of the commission were called into consultation, as would probably be the case.

3. *Cooperation with organization unit.*—The personnel committees might profitably serve as representative agencies within the units from which they are chosen. The Civil Service Commission has jurisdiction over a limited and specified number of personnel policies. But there are a thousand and one problems entirely apart from these policies that are peculiar to the given organization and that should be considered and solved within the organization concerned and nowhere else. In industrial life, representative personnel committees serve as courts of hearing and appeal with reference to personal controversies and grievances. All of the advantages of settling local matters in local courts may be advanced as arguments for this method of handling difficulties of the sort mentioned. These committees have normally become veritable buffers for the managements, protecting them from both minor and major complaints.

But industrial experience goes to prove further that "grievance committees" naturally develop into suggestion committees; that is, they become interested in advancing constructive ideas as to shop rules and shop discipline, as to working conditions, such as safety, health, etc., and, finally, as to the work processes themselves. That is to say, through the course of natural evolution personnel committees become factors in bringing about increased production. They provide the means for the development of the atmosphere of cooperation which is now accepted among progressive employers as a primary condition for constant and increasing production.

Good business policy should prompt organization heads in the Government to adopt the representative scheme of mobilizing the brains and the wills of their working force. The spirit of the times as well demands the recognition of the right of the workers to help determine the conditions under which they shall work. President Wilson stated just this in a message to the Sixty-sixth Congress when he urged the "democratization of industry based on the full recognition of the right of those who work, in whatever rank, to participate in some organic way in every decision which directly affects their welfare."

The cooperation of the personnel committees, if accepted and recognized by the administrative officials, will mark the first step in the direction of applying the democratic principle to civil-service employment in this country.

If experience in progressive industrial concerns is an index worth considering, it has been well established that no more effective way has been devised for arousing interest and enthusiasm in one's work than such sharing in control as is made possible in the formation of some type of personnel committees. If this experience can in any way be made applicable to employment relations in the Government, it should be adopted by those responsible for personnel administration in order to stimulate what is so strikingly lacking in most of the departments to-day, namely, an enthusiastic esprit de corps. Experienced employment administrators would undoubtedly agree that no better opportunity could be desired for creating the right sort of spirit among the employees than is offered in the field of public employment service. In the business and industrial fields the appeal to the workers must be based on company loyalty, whereas in the Government service, whether in peace or war, it may rightly be based on loyalty to country. Under a personnel policy that would organize such an appeal and make the great body of the employees feel that they are counting as active cooperators in promoting the welfare of their country, an esprit de corps would gradually emerge that would transform faithful routine employees into resourceful enthusiastic coworkers. The corner stone of such a policy is the provision for effective machinery for the cooperation of management and workers, such as is suggested in the personnel committees.

Health and Safety.

IT IS generally accepted as standard practice in employment administration that the conservation of health and provision against accidents are among the most important elements in a sound employment policy. Since a proper health and safety program calls for technical experts, sound and economical administration demands a centralization of authority in these fields as well. In view of the peculiar qualifications and interests along these lines of the Public Health Service, the Employees' Compensation Commission, and the Bureau of Standards, the Reclassification Commission recommends that these agencies be made responsible for supervising the health and safety of the employees of the whole service in Washington. The Civil Service Commission would have, according to this plan, only general supervision over the administration of the regulations concerning sick leave.

Health.—The close relation between health and efficiency has long been recognized by a large number of high-grade employers. Through their health divisions, they make regular surveys as to ventilation, illumination, sanitary conditions, etc. Moreover, they find that it reduces lost time to provide rest rooms and emergency aid and to send out visiting nurses to call at the homes of absentees.

Although certain features of a sound health program may be found in one bureau or another in the Federal service, and a composite of all good features would serve as the basis of a satisfactory health policy, no single department has such a policy in operation.

The War, Navy, and Treasury Departments are notable because they illustrate what can be done in the Government service in some of the directions indicated. In order to show how lacking the Government has been in providing what has come to be standard equipment in progressive industrial concerns, the following summary may be cited. Leaving the three departments named out of account and limiting the statement to the seven other departments, it appears from a report submitted to the Reclassification Commission by a research branch of the Public Health Service that these seven departments have not a single hospital or emergency room, only one of them has a rest room and a doctor in attendance, and none of them has a nurse, even though the total force involved aggregates almost 20,000 employees.

The need of equipment of this sort may be indicated by reference to the data provided by the War Risk Insurance Bureau, in which for a period of six months over 5,000 cases per month were cared for in the relief rooms. It would be difficult to compute the amount of time saved to the Government by giving attention of this kind to minor ailments as they develop.

Accordingly the commission recommends that the Public Health Service be charged with the establishment of rest and relief rooms in the various organizations, such rooms to be under the supervision of resident nurses and physicians.

It also recommends that the same organization establish a visiting nurse system that would make possible the checking up of sick leave and unexplained absences, and would see to it that patients were receiving proper care. It would furthermore ascertain the occurrence of communicable diseases. The War Department, particularly during the influenza epidemic, demonstrated what effective service a limited staff could render in these directions by dividing the city into zones. It is proposed that the Public Health Service apply this same policy to the treatment of all employees.

A third recommendation urges the desirability of having this organization make periodical surveys of working conditions so far as they affect the health of the employees. Reports came to the Reclassification Commission of the lack of ventilation, of improper lighting, of dirty floors, etc. To properly investigate some of these matters requires special technical knowledge. It is fitting that the responsibility for periodical surveys should be centralized in the Public Health Service, particularly when the Government is sovereign in its own buildings and not subject to the kind of systematic supervision that is ordinarily exercised by expert agents of the State or municipal authorities.

Safety.—A study of the reports of the Employees' Compensation Commission will furnish sufficient data to convince one as to the necessity of working out a comprehensive safety program and centralizing the responsibility for its execution in one organization. Conditions are tolerated at the present time which the factory inspectors of some of our more progressive States would immediately put under the ban. Standard safety devices have not been installed in some of the most modern buildings. Standard precautions are not observed. The result is that the Government pays, in the course of one year, compensation awards for preventable accidents alone more than would be required to cover the salaries of a corps of safety engineers and the expense of installing all necessary safety devices. For instance, two fatal elevator accidents, one in the new Interior Building, and two accidents due to low stair railings, have cost the Government to date an aggregate of $12,500.84.

The "safety first" movement that has swept over the country and saved employers an untold amount of money was born because of the compensation laws. From an entirely selfish point of view, it was found to be cheaper to prevent accidents than to pay compensation allowances and awards. The Government is slow to learn this lesson. Although its annual bill for current compensation allowances now exceeds $2,000,000 for the whole service, it has not a single safety engineer on its pay rolls, outside of the Army and Navy Departments, who is responsible for the Federal employees.

The Reclassification Commission urges the adoption of a comprehensive safety program, particularly in view of the fact that the buildings owned and leased by the Federal Government are not subject to the jurisdiction of any other authority. The recommendations of the commission cover the subjects of safe construction, safety inspection, and safety education. Major responsibility should be centralized, in its judgment, in the Employees' Compensation Commission, which should secure the services of at least one capable safety engineer to be held responsible for conditions in Washington. He should make periodic inspections and conduct an educational campaign to make people "think safe" whenever this is necessary. The commission also suggests that the Bureau of Standards cooperate with the Compensation Commission. This would be particularly desirable in connection with the plans for new buildings, the remodeling of old ones, and the installation of machinery, etc. The experts in the Bureau of Standards would bring to bear information as to the latest developments in safety devices, etc., as they appear in the codes of the different States or have been installed by progressive concerns.

Conclusion.—The evils of decentralization of authority are again apparent in the conditions that affect health and safety. The chief clerks and building superintendents who are largely responsible for these conditions can not carry their other responsibilities and become specialists along these lines as well. Functionalized administration demands that technical experts shall be in charge of such vital matters as health and safety. It is incumbent on the Government to adopt standard practice in these directions, so that it may in the future refute the repeated charge that a wide-awake factory inspector would condemn many conditions in the Government buildings in Washington.

Personnel Managers.

A REPORT on "A proposed labor program by business" was submitted something over a year ago to the Chamber of Commerce of the United States by a committee representative of that body. Among the principles urged was the following:

> Administration of employment and management of labor should be recognized as a distinct and important function of management and accorded its proper responsibility in administrative organization.

This statement of principle is being subscribed to in the practice of increasing numbers of manufacturers and executives in large scale business concerns. They recognize that personnel problems can not be successfully handled as a side issue by a number of minor and major administrators. Divided responsibility for personnel matters has all too often proved to be the fruitful source of sins of omission, because they are nobody's business, and sins of commission, because of lack of uniform policy or possibly because of the arbitrariness and petty tyranny of one or more administrative officials. If from 5 to 75 supervisory officials are responsible for the morale of a large organization it may very well be that they will work at such cross purposes that this invaluable asset will be seriously impaired.

For this reason a number of the more progressive industrial managers have concentrated the responsibility for most personnel matters within the scope of one department, specially created for the purpose. This department is called upon to look into everything that affects the working force, ranging from the conditions of the physical environment to salary increases and leave. Those things influencing the human part of the machinery of production which have heretofore been expected to take care of themselves the personnel department attends to; those matters that have been going at sixes and sevens, it straightens out. Through the eyes and ears of this organization the administrative head, who has been engrossed with a thousand and one other problems, discovers maladjustments and grievances, petty and otherwise, that he never dreamed could exist; and he also learns that they have had a decided influence on the spirit with which his workers have approached their work. Indeed, many administrators are not even aware that the morale, the "involuntary organization of mind," that affects the whole working force, is a most significant factor in good management. Although it may never have found concrete expression, it exerts a profound influence on the work of every human unit in the organization.

The personnel manager is the sign and token of the appreciation of the fact on the part of management that employees are thinking and feeling beings, responsive to such intangible forces as morale, and that the way they think and feel has a great deal to do with the way they work. The busy works manager is accustomed to tell his men what to do, and then to expect them to do it, but his new associate, the personnel manager, is interested to see how they do it, and whether they are fitted to the work and it to them. He would not only have them do the job, but have them do it with a will. Enlisting the will of the workers is an extremely difficult task. It means, first of all, justice as to the operation of employment policies, including wages; it means satisfactory working conditions, and finally an increasing oppor-

tunity to *count* in connection with the work to be done and the conditions of this work. These may be called the human demands of labor. It is through the modern employment department, or the "human relations department" as it is sometimes termed, that these demands are given form and force.

The personnel manager has his proper place at the side of the production manager. He should be an executive clothed with real authority. Many consider him falsely to be a "welfare worker," whose business it is to give expression to the humane and philanthropic instincts of the management. Although he may do this in some organizations, this is not his proper calling. He is much more than a "good mixer," filled with benevolence and good will toward his fellow beings. He is a technical specialist, who has made a scientific study of the characteristics and capacities of the human part of the machinery of production. Where successful, he measures his success in terms of increased efficiency. Industrial leaders now investing thousands of dollars in employment departments bear witness to this fact. They assign to the expert employment manager most important functions. They empower him to develop more refined methods of selection and placement, to follow up the new employees and to transfer them when they prove to be misfits; they seek his advice and refer to his records when promotions or demotions are to be made; they approve of the establishment of training facilities under his direction, and of the development of service features, such as rest rooms, restaurants, and recreational opportunities. The administration of safety and health policies is also normally centralized in his department.

Experience has shown that consistent attention on the part of a specially qualified staff to the administration of sound employment and service policies along these lines brings returns in the form of loyalty, good will, morale, esprit de corps—those qualities that form the current topic of discussion in so many meetings of boards of directors and employers' associations. Because of this interest, the "human relations department" is gradually taking its place beside the purchasing department and the production and sales departments.

In the main, conditions are similar in Government employment to-day. Mass organization has brought in its train impersonal management. This finds expression in red tape, set routine, sweeping restrictions, and prohibitions. It inevitably produces impersonal workers without initiative and without joy in work. The most recent indictment of the personnel in the Government service, coming from the pen of the retiring head of one of the large departments, lends support to this observation. Ex-Secretary Lane writes:

> Ability is not lacking, but it is pressed to the point of paralysis because of an infinitude of details and an unwillingness on the part of the great body of public servants to take responsibility. Every one seems afraid of every one. The self-protective sense is developed abnormally, the creative sense atrophies. Trust, confidence, enthusiasm—these simple virtues of all great business—are the ones most lacking in Government organization.

The typical nonfunctionalized Government department is confronted with the same problem to-day that confronted big industry before and during the war. Unsatisfactory production, costly labor turnover, and poorly qualified recruits were the symptoms that

stirred the progressive leaders in industry to thought and action. They brought to bear on the human problem the same power of scientific analysis and constructive genius that had been so successful in connection with other industrial problems. As a result they established the centralized employment department that is charged with the duty of enlisting the will and the good will of the working force. The same danger signals which aroused industrial leaders to action challenge the Government executives to-day. Lowered efficiency, a disastrous turnover amounting to 100 per cent in some of the bureaus, and a dearth of desirable recruits are familiar symptoms in the various departments. Like needs suggest like remedies. Industry has pointed the way by establishing such a functionalized employment department as has been described above.

It should be made clear that so far as the Government is concerned, this is finally not a task for the Civil Service Commission. Although certain functions of the employment department are necessarily assigned in the interest of uniformity and justice to the Civil Service Commission, the ultimate problem of developing the morale of the force is distinctly an organization problem and should be worked out within the organization units. Fortunately, several of the more progressive bureaus and establishments have already demonstrated in some directions how effectively an up-to-date personnel division may function within the Government service. Although none have established a well-rounded employment department, a number are developing with marked success certain special phases of the work that naturally fall within the scope of such a department.

The Reclassification Commission did not prescribe in its bill the appointment of personnel managers who would be agents of and responsible to the administrative heads, but it did recommend that such managers should be appointed in the different departments and establishments. The outline sketch on page 25 indicates in what way the various parts of the proposed personnel organizations would be related and how they would supplement one another.

Conclusion.

THE Government's personnel problems are the problems that are common to what has been called "superorganization." This type of organization has brought in its train, on the one hand, the distribution of responsibility for personnel matters among a large number of more or less capable administrators. On the other hand, it has made possible the entire neglect of many matters that vitally affect the well-being and thus the morale of the working force. Large industrial enterprises have found it necessary to install a responsible, well-centralized employment department. In its recommendations the Reclassification Commission makes the effort to outline a policy that looks toward this end, not a policy fixed and inelastic with elaborate details, but one that may be readily adapted to the demands of a number of complex and expanding organizations. It is suggested that the various cooperating agencies recommended should properly supplement one another; they should insure the employee just and fair treatment, opportunity for advancement, and recognition of merit; they should enable him to find an outlet for his grievances,

but also to give expression to his own constructive ideas. In a word, they should guarantee him the possibility of a satisfactory career.

Employment administration successfully conducted through agencies of the sort described would inevitably result in the growth of a real esprit de corps, which has been found so essential for the highest productivity. In this way the Government would be assured of a higher standard of efficiency than prevails in most of the departments to-day. Taken as a whole, the organization suggested for the entire service, together with the specialized personnel departments in the various units, should result in a personnel policy which would promote justice, equality and efficiency, health and safety, and such a degree of democracy as is consistent with the spirit of our time.

Finally, it is believed that the establishment of a functionalized and well-organized employment department in the Government would go far toward preparing the way for a more intelligent approach to the critical industrial problems of the present time, because of the influence that the Government would naturally exert if it became one of the pioneers in this field. It should point the way toward industrial peace, not alone by legislative enactment and recommendations of conferences and commissions, but by constructive act and concrete achievement. This must ultimately mean the liberation of those qualities of good will, confidence, and enthusiasm that are the rightful heritage of all human beings, and that should properly find adequate expression in the work relations of life.

OUTLINE SKETCH OF ORGANIZATION FOR PERSONNEL ADMINISTRATION.

Advisory Council (administrators and employees).	Civil Service Commission.	Personnel committees in organization units (administrators and employees).
Functions. 1. Official advisory powers on all civil-service policies and regulations. 2. Clearing-house for all personnel matters affecting more than one establishment. 3. Creation of personnel committees and definition of their functions.	*Functions.*[1] 1. Classification. 2. Revision of compensation. 3. Entrance examinations. 4. Probationary period. 5. Efficiency ratings. 6. Promotion examinations. 7. Transfers. 8. Training. 9. Sick and annual leave. 10. Appeals.	*Suggested functions.* 1. Efficiency ratings. 2. Personal service regulations. 3. Methods and organization of work. 4. Working conditions. 5. Appeals (initial placement, classification, compensation, discipline, etc.).

Details of personnel administration to be handled by:

1. Civil Service Commission extension agents.

Functions.

Interpretation and supervision of administration of civil-service regulations.

2. Personnel officers in each department (or comparable unit).

Functions.

Responsible for all matters affecting efficiency, well-being, and morale of working force in given unit.

Health and safety.

Public Health Service:	Employees' Compensation Commission and Bureau of Standards:
1. Rest and relief rooms.	1. Safe construction.
2. Visiting nurse system.	2. Safety inspection.
3. Inspection of working conditions.	3. Safety education.

[1] In the interest of brevity, no effort is made to indicate the extent of the responsibility of the commission in the directions specified.

Federal Intervention in Railroad Disputes.

By LEIFUR MAGNUSSON and MARGUERITE A. GADSBY.

THERE have been four Federal acts prescribing specific machinery for the adjudication of controversies involving interstate commerce carriers and their employees. The first, known as the arbitration act of 1888 (Oct. 1, 1888; 25 Stats. 501), provided for arbitration and for compulsory investigation of such disputes. Its arbitration provisions were never utilized, and the act was repealed by the Erdman law, passed June 1, 1898 (30 Stats. 424), which provided for both mediation and arbitration. (A minor amendment to the Erdman Act was passed on Mar. 4, 1911; 36 Stats. 1397.) This act was in turn repealed by an act approved July 15, 1913, known as the Newlands Act (38 Stats. 103), which establishes a permanent agency for the mediation of disputes, known as the United States Board of Mediation and Conciliation. This act is still in force, although its functions have been limited to a considerable extent by the passage of the transportation act on February 28, 1920 (Public No. 152, 66th Cong.), which provides for mediation of disputes and establishes a permanent arbitration board, this board to be a continuous investigational body.

The Adamson eight-hour law, although it provides no permanent machinery for the settlement of disputes, is of itself a congressional arbitration award in a single dispute and has been included in this comparative analysis.

The most comprehensive machinery for the settlement of railway disputes was that set up by the Railroad Administration under authority of the Federal control act (40 Stat. 451, Mar. 21, 1918), and subsequent proclamations and orders which provided for the mediation and conciliation of disputes arising during the war-time emergency. Although the three adjustment boards created by the administration are technically out of existence, they are still engaged in settling cases arising out of the interpretation of contracts entered into before the railroads were returned to private control, and it is not unlikely that some of this machinery may be utilized under the transportation act.

Railway legislation respecting the conditions of employment, e. g., employers' liability and safety acts, the 16-hour law, the interstate commerce acts, and others have been omitted from the present discussion.

In order to trace more effectively the evolution of Federal action respecting railway disputes and in order to compare more readily the results of such action, the subject has been treated by topics rather than by individual pieces of legislation.

Scope of the Acts.

Carriers and Employees Included.

THE laws here under consideration have had as their purpose the adjustment of labor disputes upon interstate railroads. These carriers, it is commonly asserted, carry 90 per cent of the commerce

of the country. Yet with the exception of the arbitration act of 1888, none of these laws have included all of the employees and companies engaged in the movement of the traffic. The war-time emergency provisions established by the Railroad Administration were almost as inclusive as the act of 1888, affecting all transportation systems of the country (except short-line railroads of less than 100 miles) and all of their employees, approximately 1,892,000 workers. The provisions of the Adamson eight-hour law are limited to controversies affecting common carriers subject to the Interstate Commerce Act, except street railways and short-line railroads. Whether the ferry systems of the railroads, such as those in New York City, come within the act is in dispute at the present time. The new transportation act is the only law comparable in scope with the arbitration act of 1888. The latter act affected all transportation companies engaged in interstate traffic and all classes of workers employed by them. The new act affects employees of all carriers subject to the interstate commerce act except electric railways not operating as a part of a general steam railway system of transportation.

The Erdman Act and Newlands Act and the Adamson law were obviously designed to cover only those controversies in which the most active and most powerful of the labor organizations upon the roads were likely to be involved. Both the Erdman Act and the Newlands Act applied to interstate common carriers by railroad, but only to those employees actually engaged in train operation and train service. Their practical scope was, therefore, limited to controversies involving engineers, firemen, conductors, trainmen, switchmen, and telegraphers.

In practice, however, since both mediation and arbitration under these acts were purely voluntary, the cases submitted to the boards created by these acts sometimes involved employees not covered in the letter of the act. Such cases were considered when it was deemed in the public interest to do so—e. g., a controversy settled under the Erdman Act involved railway shopmen as well as employees engaged in train operation. The Newlands Act, which provides for the exclusion of employees of street railways, has been interpreted by the board created by that act as excluding only street railway employees engaged in intrastate commerce, and cases affecting street railway employees covered by the interstate commerce act have been accepted by the board. Discussions in Congress upon the passage of the new transportation act leave the impression that this board will continue to handle disputes upon interstate street railways.

The Adamson eight-hour law affects employees which come under the jurisdiction of the Brotherhood of Locomotive Engineers, Order of Railway Conductors, Brotherhood of Locomotive Firemen and Enginemen, and the Brotherhood of Railway Trainmen.

Within the occupations mentioned the provisions of all the acts noted have been applied regardless of whether the employees affected by a dispute were organized or unorganized.

Matters Cognizable Under the Acts.

THE arbitration act of 1888 provided for the settlement of any controversy which "may hinder, impede, obstruct, interrupt, or affect transportation of property or passengers." The Erdman

Act and Newlands Act specify that controversies under the acts shall concern wages, hours of labor, and conditions of employment which seriously interrupt or threaten to interrupt interstate traffic, the latter act adding the phrase "to the serious detriment of the public interest." As a matter of fact, however, under the Newlands Act the custom has grown up among both employers and employees of referring their controversies of a less serious nature to the board of mediation and conciliation created by that act. Although the board has not encouraged this practice, it has heard such cases whenever it was considered in the public interest to do so. (The board has not considered it necessary that a strike vote should be taken prior to intervention.) On railroads under Federal control, machinery was provided by the Railroad Administration for the settlement of "all controversies" which could not be promptly adjusted by the carriers and the employees concerned. The transportation act provides machinery for the voluntary settlement of disputes involving "grievances, rules, or working conditions" which are likely "substantially to interrupt commerce." Particular emphasis is placed upon wages, hours of labor, and conditions of employment.

Mediation and Conciliation.

MEDIATION as a process of settling disputes is found in the Erdman Act (1898) and the Newlands Act (1913), which is still in force. Under the Railroad Administration during the war and under the new transportation act conciliation boards take the place of mediation.

In the process of mediation the parties themselves arrive at an agreement through the friendly offices of the mediators; the latter do not impose their views upon the parties or hand down an award or make a decision. The parties themselves or their representatives, however, rarely meet at any time during the process of harmonizing differences; practically all communication between them is before the mediator. In the process of conciliation, on the other hand, the parties actually meet to compose their differences, usually before conciliation boards made up in equal proportion of the representatives of the two parties.

The terms of the various laws providing for mediation of disputes consist of little more than the designation of certain individuals to act as go-betweens of the parties to a dispute. Both the Erdman Act and the Newlands Act direct that the designated persons or board shall "put themselves in communication with the parties to a controversy" and "shall use their best efforts by mediation and conciliation to bring the parties to an agreement."

Erdman and Newlands Acts.

The machinery of mediation under the Erdman Act (1898) was very simple. The Federal mediators were ex officio the chairman of the Interstate Commerce Commission and the Commissioner of Labor. An amendment on March 4, 1911, directed that the President could designate any member of the Interstate Commerce Commission or of the Court of Commerce to exercise the powers conferred on the chairmen of the Interstate Commerce Commission

under the Erdman Act. Under the Newlands Act (1913) mediation rose to greater importance, and a special body known as the United States Board of Mediation and Conciliation was created, consisting of a commissioner of mediation and conciliation and two other officials of the Government appointed by the President with the advice and consent of the Senate. There is in these acts no recognition of the principle of representation of economic interests.

Railroad Administration.

The machinery of conciliation which featured in the Railroad Administration orders and plays a prominent part in the new transportation act is more complex and formal than the mediation board under the Newlands Act. Special boards of adjustment, or what may be better termed councils of conciliation, were created. The Railroad Administration, through a series of orders, worked out the composition and defined the functions of these adjustment boards on the principle of the representation of economic interests.

What was tantamount to a board of mediation and an investigational commission was also created by the Railroad Administration in the shape of the labor division established February 9, 1918, by Circular No. 1. This division also had general supervision of the equipartisan adjustment boards or conciliation councils created as continuing agencies for the adjustment of differences which might arise between employees and railroad officials.

Under the plans of the Railroad Administration three of these conciliation councils were created, known as Railway Boards of Adjustment No. 1, No. 2, and No. 3.[1]

Railway Board of Adjustment No. 1 (created Mar. 22, 1918) handled controversies arising between the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, the Order of Railway Conductors, the Brotherhood of Railway Trainmen, and the roads under Government control. It consisted of eight members, four chosen by the labor organizations and four by representatives of the roads.

Railway Board of Adjustment No. 2 (created May 31, 1918) handled controversies between the International Association of Machinists, the International Brotherhood of Boilermakers and Iron Shipbuilders, the International Brotherhood of Blacksmiths and Helpers, the Brotherhood of Railway Carmen of America, the Amalgamated Sheet Metal Workers' International Alliance, the Brotherhood of Electrical Workers, and the railroads under Federal control. This board was composed of two groups of six members each, representing, respectively, the labor unions and the railroads.

Railway Board of Adjustment No. 3 (created Nov. 13, 1918) handled controversies arising between the Order of Railway Telegraphers, the Brotherhood of Railway Clerks, the Switchmen's Union of North America, the Brotherhood of Maintenance-of-Way Employees and Railway Shop Laborers, and the railroads under Federal control. It was composed of eight members equally divided between the unions involved and the railroads.

[1] Noted in the MONTHLY LABOR REVIEW, respectively, for May, 1918 (pp. 180–182), July, 1918 (p. 132), and March, 1919 (p. 162).

The order creating each board was in the form of an agreement or "memorandum of understanding" between the regional directors of the roads and the members of the unions. These agreements outlined the general functions of the boards and the method of procedure as follows:[1]

All controversies growing out of the interpretation or application of the provisions of wage schedules or agreements in effect, which were not promptly adjusted by the officials or employees on any of the individual railroads under Federal control, and all personal grievances or controversies arising under interpretation of wage agreements and all other disputes arising between officials of a railroad and its employees were to be handled in the usual manner by the committees of the employees and officials of the railroads up to the chief operating officer of the railroad (or some one officially designated by him). If, after this usual process, an amicable adjustment was not reached, then it became obligatory (by virtue of the "memorandum of understanding") on both the part of the railroads and officials of employees' organizations to submit the matter in controversy to the railway board of adjustment having jurisdiction. Provisions were made for joint submission of facts and brief argument in each case submitted, and if it was deemed advisable, such railway board of adjustment could call for additional information, either oral or written, and when the matter had been entirely investigated a decision would be rendered by the board.

For the purpose of providing proper methods of adjusting controversies of the unorganized employees who were not covered by the above arrangement, an assistant director general of railroads was appointed who performed for such employees the work performed by the railroad boards of adjustment.

The duties of the three adjustment boards were confined to decisions of controversies arising out of the application of wage orders and to the settlement of all other disputes between officials and employees on railroads operating under definite wage agreements. Complaints outside the range of existing schedules and requests for changes in wages and working conditions were handled by another board, called the Board of Railway Wages and Working Conditions. It was composed of six members, two groups of three each representing, respectively, the railroads and the labor organizations. This board, which also investigated other matters referred to it by the Director General of Railroads, was purely an advisory body and submitted its recommendations to the Director General for his determination.

Transportation Act.

The new transportation act accepts the principles underlying the formation and use of these boards of labor adjustment, but does not specify the number of such boards. It does not specifically state that these boards shall be composed in equal proportion of representatives of both sides. Questions respecting the desirability of the formation of such boards and the details connected therewith are left to the discretion of the carriers and employees concerned. The act does, however, define the kinds of disputes which such boards are to consider—namely, those involving grievances, rules, or working conditions; that is, excluding wages, salaries, and hours. An adjustment board assumes jurisdiction over a dispute upon application of either the carrier or its employees or upon its own motion. Application from the employees may be from an organization of employees or

[1] Annual report of W. G. McAdoo, Director General of Railroads, 1918. Labor. Washington, 1919, p. 5.

upon petition of not less than 100 unorganized employees or subordinate officials directly interested in the dispute.

The adjustment boards provided for by this act are called upon to hear each case as soon as practicable and to declare their decision with due diligence.

Arbitration.

ARBITRATION has been a feature of all Federal legislation for the adjustment of industrial relations on American railroads. It was a principal feature of the act of 1888; it was subordinated in intent in the Erdman Act of 1898 and the Newlands Act of 1913. However, under the war-time control by the Railroad Administration, when the roads were practically under Government ownership, it was not deemed proper that questions affecting Government employees should be arbitrated. On the other hand, arbitration becomes once more the basic feature in the transportation act of 1920. Needless to say, arbitration has throughout been voluntary, the justice of the award, the good faith of the parties, and the restraining influence of public opinion being relied upon as the adequate sanction.

As will be explained, a certain period during which the status quo must be maintained following the making of an award is provided.

Arbitration Boards.

The arbitration boards under the early legislation (acts of 1888, 1898, and 1913) were ad interim boards, each one functioning only for the controversy for which it was specially and specifically called into existence. (The Newlands Act, alone, provides for the reconvention of such a board in case dispute arises over the interpretation of its award.) The transportation act board is a continuing agency for the hearing of disputes, the members of which are chosen for overlapping terms of five years each, and are removable from office by the President. Each commands an annual salary of $10,000.

The arbitration board under the act of 1888 and the Erdman law of 1898 consisted of three members, while the Newlands law provides for a board of three members or a larger one of six members, according to the preference of the parties in dispute. The transportation act provides for a board of nine members. In the case of the first three laws mentioned one arbitrator is selected by each side to a controversy, the third arbitrator being chosen by the two thus selected. Under the transportation act of 1920 one-third of the members of the board are selected by the President from a group proposed by the employees and subordinate officials of the railroads and one-third from nominees of the carriers. The third group, representing the public, is selected directly by the President. All members of the transportation act board are appointed with the advice and consent of the Senate. The act of 1888 made no provision for the selection of the third member of a board in the event of failure to agree upon the two members representing the disputants. This act, however, restricted the choice of the arbitrators to persons "wholly impartial and disinterested in respect to matters passed upon."

All subsequent laws have made provision to meet the contingency arising from a failure of the disputing parties to appoint arbitrators.

The Erdman Act left the ultimate choice of the third arbitrator to the joint action of the Federal mediators, the Newlands Act leaves it to the board of mediation and conciliation, and the transportation act of 1920 to the President of the United States. The independence of the board members under the act of 1920 is further sought by requiring them to relinquish active membership in any organization of employees and by requiring them not to be pecuniarily interested in any carrier. However, honorary membership in any organization or rights to insurance or pension benefits need not be forfeited.

Selection of Arbitrators.

The method of selection of arbitrators is provided in the several laws in general terms only, and final choice is left to the discretion of the parties to a dispute. It is recognized that the representatives of both parties have a bias and speak peculiarly for their side, and neutral arbitrators are therefore provided. No attempt is made to permit either party to challenge the representatives of the other party.

The laws are somewhat specific, however, in the definition of the "parties to the controversy." The question as to who shall constitute the "employees" who are a party to the dispute involves the matter of organization, and all legislation looking toward the settlement of industrial disputes on railroads has made some provision in this respect.

The arbitration act of 1888 provided for the selection of representatives on the arbitration boards by the "railroad company" and the "employee or employees" interested, and further that "it shall be the right of any employees engaged in the controversy to appoint, by designation in writing, one or more persons to act for them in the selection of an arbitrator to represent them upon the board of arbitration." The act does not specify the manner in which the "persons" shall be selected. Both the Erdman Act and the Newlands Act, however, provided for the selection of employee representatives on the arbitration boards "by the organization or organizations interested," or in the event that the employees engaged in any controversy were not members of an organization, by a committee selected by such employees and authorized to name the arbitrator or arbitrators for which the acts provided.

The transportation act provides for the establishment of railroad boards of labor adjustment by agreement between "any carrier, group of carriers, or the carriers as a whole, and any employees or subordinate officials of carriers or organization or group of organizations thereof." Applications for hearings are to be recognized by this board if submitted by "petition signed by not less than 100 unorganized employees." In its provision for the selection of members for the Railroad Labor Board the act prescribes that three members "constituting the labor group, representing employees and subordinate officials of the carriers" shall be appointed by the President, with the advice and consent of the Senate, from not less than six nominees chosen "by such employees and in such manner" as the Interstate Commerce Commission shall prescribe. The Interstate Commerce Commission has prescribed that these members shall be chosen from

nominees selected by designated labor organizations. The list comprised 35 labor organizations and associations of subordinate officials.[2]

Only organized labor was represented on the railway boards of adjustment and on the Board of Railroad Wages and Working Conditions created by the Railroad Administration. Special mediators were appointed to adjust disputes affecting unorganized employees.

Preliminary Mediation.

All the legislation here under consideration, with the exception of the arbitration act of 1888, provides that recourse must be had to existing agencies of mediation and conciliation before arbitration proceedings can be begun. The transportation act of 1920 requires that disputants shall "exert every reasonable effort and adopt every available means to avoid any interruption to the operation of any carrier" before they will be heard by the Railroad Labor Board. This has been interpreted by some to mean that all disputants must utilize the service of the Newlands Board of Mediation and Conciliation before bringing their disputes before the Railroad Labor Board.

Initiation of Proceedings.

Proceedings under the various laws were to be initiated in writing by either party to a dispute after all efforts at mediation and conciliation had failed. Under the transportation act of 1920 proceedings are initiated in one of three ways other than by an appeal from an adjustment board: (1) Upon the application of the chief executive of any carrier or organization of employees or subordinate officials whose members are directly interested in the dispute; (2) upon written petition of not less than 100 unorganized employees or subordinate officials interested in the dispute; or (3) upon the labor board's own motion if it deem the dispute of such importance as to be likely to interrupt commerce.

The Erdman law required that proceedings should commence 10 days after the appointment of the third arbitrator. Under the Newlands Act the date of commencing proceedings is specified in the written agreement to arbitrate, which always precedes such negotiations under that act. The transportation act of 1920 merely specifies that the board shall decide any dispute "as soon as practicable and with due diligence."

Matters Cognizable.

The matters cognizable by the arbitration boards under the different laws were limited and defined. The acts of 1888 and 1913 limited the jurisdiction of the boards to matters agreed upon between the parties to a dispute. Such a limitation was left to implication in the Erdman Act of 1898. The transportation act of 1920 limits the original jurisdiction of the Railroad Labor Board to all disputes with respect to the wages or salaries of employees or subordinate officials of the carriers, while the appellate jurisdiction of the board extends likewise to grievances, rules, or working conditions in respect to which any adjustment board certifies that it has been unable, or will fail, to reach a decision within a reasonable time.

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[2] For an account of this action see MONTHLY LABOR REVIEW for May, 1920, pp. 46–48.

Awards.

Expedition in arbitration proceedings is secured in some cases by requiring a time limit in making awards. The act of 1888 contained no provision in this respect. The Erdman law of 1898 stipulated a time limit of 30 days for making an award. The Newlands Act of 1913 makes the period within which award shall be handed down a part of the agreement of submission to arbitration between the parties. The terms of the transportation act of 1920 in this respect are very general and simply require that the board shall act with due diligence.

The duration of an award arising from arbitration was not fixed by the act of 1888. The Erdman Act fixed it at one year. In the Newlands law this matter is subject to agreement by the parties submitting to arbitration. The Newlands Act also provides for reconvening of an arbitration board to pass upon any controversy arising over application of an award. The Adamson Act, in itself an award, stipulates for the continuance of its terms during 10 months; that is, the commission of investigation under the act was required to report within 6 or 9 months at its discretion, and a further stay of 30 days after making a report was allowed before any change in wages as a result of the hours of work fixed was permitted. The transportation act of 1920 contains no such provision. This omission is, however, unimportant as the Railroad Labor Board is a continuing administrative body as respects its awards, and has authority at any time to change an award upon petition of the parties thereto. It may even of its own motion suspend an award within 10 days after its determination if it is considered that the effect of the award in increasing wages and salaries will be to require substantial increases in transportation rates.

Investigation of Railroad Disputes.

THE only Federal legislation providing for compulsory investigation of railroad disputes is embodied in the arbitration act of 1888 and in the recent transportation act.

Arbitration Act of 1888.

Compulsory investigation was implied in the arbitration act of 1888 in the provision that the President, either upon his own motion or upon the application of one of the parties to the dispute or of the executive of the State, was empowered to select two commissioners, at least one of whom should be a resident of the State or Territory in which the controversy arose, who, together with the Commissioner of Labor, should constitute a temporary commission for the purpose of investigating the causes of the dispute and the best means of adjusting it. The commission could be appointed by the President without application from either side or without regard to the wishes of either side. The members of the commission other than the Commissioner of Labor were chosen by the President without conference with either side of the controversy. The decision of the committee was to be made public and was to advise the parties in dispute as to their proper course of action. No provision was made for the enforcement of its decision, nor was there any moral obligation on the

part of either party to be bound by it. During the 10 years which this act was in operation there was but one commission appointed.

Railroad Administration.

The Labor Division of the Railroad Administration, created on February 9, 1918, to supervise relations between the employees and the controlled railroads, was in effect a division of investigation as well as a medium for the handling of disputes. Investigators were often sent to localities in which signs of dissatisfaction appeared, to attempt to deal with the situation before it became serious. This plan applied particularly to those sections in which employees were not well organized. There was also a woman's section of the division, which undertook to determine the suitability of certain kinds of work for women, and to provide proper "conditions of employment" for women who took the places of men on railroads under Federal control.

Transportation Act.

The transportation act provides that the permanent Railroad Labor Board created by that act, as above described, shall constitute a continuous investigational agency to "study the relations between carriers and their employees, particularly questions relating to wages, hours of labor, and other conditions of employment and the respective privileges, rights, and duties of carriers and employees, and shall gather, compile, classify, digest, and publish, from time to time, data and information relating to such questions, to the end that the Labor Board may be properly equipped to perform its duties under this title and that the members of the adjustment boards and the public may be properly informed." It is required to publish annually its decisions and regulations, and is authorized to examine into the observance of its decisions and make public the facts in any case.

Powers of Investigational Agencies.

Arbitration Act of 1888

UNDER the arbitration act of 1888 both the commission of investigation and the boards of arbitration provided for by the act possessed all the powers and authority to administer oaths, subpœna witnesses, and compel the production of documents relating to the subject under investigation possessed by the United States commissioners appointed by the Circuit Court of the United States, but the law provided that no witnesses should be compelled to disclose the secrets or records of any labor organization of which he might be a member.

Transportation Act.

The board appointed under the new act has much wider powers in compelling the attendance of witnesses, the production of books, documents, and other information. Right of access is provided to any book, record, account, paper, or correspondence relating to any matter which the board is authorized to investigate. Resistance to the exercise of this right is punishable by a penalty of $500, each day

during any part of which such offense continues constituting a separate offense. No individual is excused from testifying on the ground that the evidence so produced might incriminate him, but no witness can be prosecuted under such testimony.

Erdman and Newlands Acts.

The Erdman Act contained no provision for investigation in case of failure of mediation and arbitration, nor is there any such provision in the Newlands Act. The following provision, however, for compelling testimony and the production of documents bearing on the case was made in the Erdman Act and was later included in the Newlands Act:

SEC. 5. That for the purposes of this act the arbitrators herein provided for, or either of them, shall have power to administer oaths and affirmations, sign subpœnas, require the attendance and testimony of witnesses, and the production of such books, papers, contracts, agreements, and documents material to a just determination of the matters under investigation as may be ordered by the court; and may invoke the aid of the United States courts to compel witnesses to attend and testify and to produce such books, papers, contracts, agreements, and documents to the same extent and under the same conditions and penalties as is provided for in the act to regulate commerce, approved February 4, 1887, and the amendments thereto.

Adamson Law.

The Adamson eight-hour law provided for a temporary commission of three persons directed to investigate the operation and effects of the basic eight-hour day and the facts and conditions affecting the relation of employers and workmen and to report to the President and Congress within a period of 10 months after the law should become effective. This commission had no power to make recommendations; it could only report facts; neither could it subpœna witnesses nor compel the submisssion of papers, documents, etc., relating to the matter it was authorized to investigate.

Railroad Administration.

While the roads were under Federal control a railway wage commission was appointed by General Order No. 5, issued by the Director General of Railroads on January 18, 1918. This commission was authorized to conduct—

A general investigation of the compensation of persons in the railroad service, the relation of railroad wages to wages in other industries, the conditions respecting wages in different parts of the country, the special emergency respecting wages which exist at this time owing to war conditions and high cost of living, as well as the relation between different classes of railroad labor.

Officers, agents, and employees of the railroads were directed to furnish to the commission upon request all information required in the course of the investigation. The duties of this commission, known as the Lane Commission, ended with its report to the Director General on April 30, 1918.[3] The findings and recommendations of this commission formed the basis for the wage orders issued by the Director General of Railroads and for the decisions of the adjustment boards created by the Railroad Administration for the settlement of controversies during the war.

[3] Report of the Railroad Wage Commission to the Director General of Railroads, Apr. 30, 1918. Washington, Railroad Wage Commission, 1918, 156 pp., noted in the Monthly Labor Review for June 1918, pp. 21–45.

Appeal to Courts.

THE Erdman Act provided for the enforcement of the award of the arbitrators by a court of equity, provided legal process should not be issued to compel performance of personal service. The courts were never called upon for the purpose.

The Erdman Act provided for the right of appeal from the award of the arbitrators on the ground of "error in law apparent on the record." This provision is also contained in the Newlands Act. Appeal lay first to the district court and then to the circuit court of appeals. Utilization of these provisions was made in only two cases. The arbitration act of 1888 made no provision for appeal to the courts from decisions of the boards created by those acts, and no such provision appears in the transportation act of 1920.

Under Federal administration of the railroads there was no provision for appeal to the courts, but dissatisfaction with the decisions of the boards created by the Railroad Administration was reported to the Director General, whose decision was final.

Strikes and Injunctions.

NONE of the Federal legislation for the amelioration of industrial relations on the railroads has prohibited the strike as the ultimate weapon of the labor group. The Erdman Act alone went so far as to require postponement of strikes and lockouts in railway disputes pending arbitration and for a specified period after the rendition of an award. This provision, however, is obviously not the customary one compelling delay in striking pending forced investigation of a dispute should neither party agree to arbitrate. Having agreed to arbitrate there is no great likelihood of a strike or lockout on either side pending arbitration.

The use of the injunction to compel performance of service was expressly forbidden in the Erdman law and the same provision is contained in the Newlands law. While the new transportation act imposes a duty upon both sides to a dispute to avoid interruption to operations, it attaches no penalty for nonperformance. Whether or not the injunctions can be invoked to enforce this duty will be a question for future determination by the courts.

Neither strikes and lockouts nor injunctions were prohibited under the arbitration act of 1888, nor under the emergency war-time arrangements of the Railroad Administration.

Operation of the Laws.

NO ATTEMPT is made to present anything approaching an exhaustive analysis of the operations of these laws. In the first place, it has not been possible to secure statistics concerning the number of strikes which have occurred within the railroad occupations included in the adjustment laws here under consideration. Thus no showing can be made as to the relative value of these laws in settling disputes within the field of their operations.

Relative Importance of Arbitration.

While a large number of disputes have been settled by the mediation and conciliation features of the Erdman and the Newlands laws, it is nevertheless true that the most important cases have gone to arbitration. Of 61 cases which were referred for adjustment under the Erdman Act, 45 were settled by mediation and 16 by arbitration. Under the Newlands Act (1913 to 1919) 131 cases were disposed of, 109 by mediation and 22 by arbitration. On the other hand, while the number of employees affected per case adjusted by mediation under the Erdman law was only 3,297, it was 6,414 in cases which went to arbitration. Under the Newlands Act mediation cases averaged 4,914 employees affected as against 7,916 in arbitration cases. The mileage involved per case in the arbitration cases is also larger than in the mediation cases. Thus, in so far as the significance and success of the method of settling disputes can be measured by the amount of railroad mileage and the number of employees affected in each case adjusted, it is obvious that arbitration has proved more important than mediation and conciliation. This is brought out in the following table:

NUMBER OF MEDIATION AND ARBITRATION CASES UNDER THE ERDMAN ACT AND THE NEWLANDS ACT, 1899, AND 1906 TO 1919.[1]

Year.	Arbitration cases.					Mediation cases.					Total number of cases.
	Number of cases.	Railroad mileage.		Employees directly involved.		Number of cases.	Railroad mileage.		Employees directly involved.		
		Total.	Per case.	Total.	Per case.		Total.	Per case.	Total.	Per case.	
Erdman Act.											
1899	1										1
1906	1	2,350	2,350	600	600						1
1907	1	5,800	5,800	1,250	1,250	5	117,850	2,357	46,350	927	6
1908						7	34,850	4,979	16,250	2,321	7
1909	2	6,450	3,225	1,480	740	7	30,270	4,324	13,005	1,858	9
1910	7	144,450	20,636	33,820	4,831	9	146,500	16,278	44,742	4,971	16
1911	1	200	200	105	105	7	17,160	2,451	5,448	7,783	8
1912	2	44,837	22,419	31,374	15,687	5	22,763	4,553	16,785	3,357	7
1913 (6½ mos.)	1	43,330	43,330	34,000	34,000	5	64,217	12,843	5,799	1,160	6
Total	16	247,417	15,464	102,629	6,414	45	433,610	9,636	148,379	3,297	61
Newlands Act.											
1913 (5½ mos.)	5	62,053	12,410	99,674	19,935	10	26,068	2,607	22,444	2,244	15
1914	3	146,082	48,694	55,504	18,501	21	36,131	1,721	17,884	852	24
1915						12	19,120	1,593	5,691	474	12
1916	7	48,570	6,939	9,227	1,318	12	239,553	19,963	404,316	33,693	19
1917	7	27,293	3,899	9,745	1,392	22	172,771	7,853	76,528	3,479	29
1918[2]						27	20,483	759	8,445	313	27
1919[2]						5	805	161	270	54	5
Total	22	283,998	12,909	174,150	7,916	109	514,931	4,724	535,578	4,914	131

[1] Data taken from Report of the Commissioner of Mediation and Conciliation on the operations of the United States Board of Mediation and Conciliation, 1913–1919, Washington, 1920, and from United States Bureau of Labor Statistics Bulletin No. 98: Mediation and arbitration of railway labor disputes in the United States by Chas. P. Neill, pp. 1–63, Washington, 1912.

[2] Settlement of disputes on all interstate carriers other than lines of 100 miles or less in length and interstate street car lines taken over by United States Railroad Administration during the war.

The relative value of mediation as compared with arbitration in the settlement of disputes can not be entirely measured by the amount of mileage involved and the number of employees affected in each

case, because the number of men going on strike is not always the controlling feature in the success or failure of any strike. The occupation of the men may be so important to transportation operations that a small number may be in a position to tie up a very extended mileage and to throw out of work a considerable number of other employees. This would be the position, for example, in the case of switchmen, who are key men in railroad operation. While in the case of the legislation under discussion in particular it is true that it has covered only a limited number of occupations—those represented in the four principal brotherhoods of the railroads, namely, the firemen and enginemen, the conductors, the trainmen, and the engineers—yet because of the fact that each of these occupations represents about the same degree of strategic power in the operation of trains, the use of railroad mileage involved, and the number of employees affected per case adjusted, becomes of greater value in measuring the relative importance of arbitration and mediation in the settlement of disputes than any other means.

The development in the importance of arbitration under these Federal laws for the adjustment of disputes upon railroads has thus far gone unnoticed in all discussions of these acts, and greater stress has been laid upon mediation and conciliation as a means of settling disputes. Yet it is this development of Federal adjustment legislation which is of prime interest in connection with the greater stress laid on the arbitration features of the new transportation act. Federal legislation began with reliance upon arbitration as a sole means of adjusting railroad disputes. Subsequent developments showed the need for the supplementary processes of mediation and conciliation. As these processes grew in importance and as their success was obvious, arbitration came to be looked upon as a complement thereto, and, as stated, soon became the means of settling the most important disputes. This evolution has now been crystallized, so to speak, in the new transportation act, in which mediation and conciliation are subordinated in intent, while the machinery of arbitration is given a much more prominent place.

Difficulties of Arbitration.

Arbitration, however, has had its difficulties. One of these has been in the choosing of the arbitrators. Frequently the arbitrators were not selected within the time limit prescribed in the Erdman Act and the task of selection then fell upon the Government mediators. Aside from the difficulty of getting the two original arbitrators in a controversy to agree upon the third party, it was an embarrassing duty for the mediators to select the third arbitrator—one who would be acceptable to the two other arbitrators and not open to criticism on their part for any bias.

> It is necessary that the person appointed by the mediators shall not only in their judgment be fair-minded in fact, but shall be free from any present or past affiliations which might justify either side in doubting his fair-mindedness.[4]

Both the railroad managers and the employees objected to the arbitration features of the Erdman Act on the ground that the board was too small, inasmuch as decision depended on the word of one umpire. The railroad employees, through concerted movements,

[4] Bulletin of the United States Bureau of Labor Statistics No. 98, p. 17.

had endeavored to have questions for a certain definite territory settled through one series of negotiations. Three distinct territories covering the entire country had gradually grown up in the railroad world, known as the eastern, western, and southeastern territories. A dispute involving all the railways and employees of one-third of the country was deemed too serious to trust to the decision of one neutral umpire. In 1912 a dispute arose which the roads were unwilling to submit to arbitration under the act, and proposed instead a larger nonstatutory board, to consist of seven members.

Each of the parties in dispute selected one man and the five neutrals were chosen by the Commissioner of Labor, the judge of the Commerce Court, and the Chief Justice of the United States, from a list of names agreed upon by the two boards chosen by the parties. Arbitration failed in this case, but dissatisfaction with this feature of the act was largely responsible for the passage of the Newlands Act on July 15, 1913. In 1914 a dispute covering the western railroad territory went to arbitration only after the urgence of the President of the United States who had personally called the railroad managers into conference, and in 1916 a dispute in the eastern territory covering the principal railroad crafts could not be settled by the ordinary process of arbitration and was acted upon by Congress in granting the principal demands of the men by enactment of the Adamson law.

Failure of the Arbitration Act of 1888.

The arbitration act of 1888 was clearly in advance of the spirit of the times, and remained a dead letter so far as the settlement of any dispute was concerned, and in only one instance was its authority invoked for the purpose of inquiring into the merits of a controversy. In July, 1894, a commission was appointed to investigate the Pullman car strike begun in May, 1894, which had developed into a general strike on the railroads, centering at Chicago, under the American Railway Union. The commission was not appointed until after the strike had practically been lost a week or more,[5] while its report was made three and a half months after its appointment, and about three months after the strike leaders had been proceeded against by injunction for interfering with the carriage of the mails and had been jailed for contempt of court for disobeying the injunction.[6] Furthermore, the report of the commission threw little light upon the merits of the controversy itself whereby the public might be enabled to judge intelligently as to the justification of the strike. The commission, among other suggestions, recommended a new law embodying provisions for compulsory enforcement of an arbitration award—a requirement more stringent than any contained in the act of 1888.[7] It sought the establishment of a board to handle railroad labor questions paralleling the functions of the Interstate Commerce Commission on the financial and shipping side of railroad operations.

Appeal to Courts Under Erdman and Newlands Laws.

The right of appeal from an arbitration award has been exercised twice under the laws—once under the Erdman law and once under

[5] Neill, Charles P. Mediation and arbitration of railway labor Disputes in the United States. In Bulletin of the United States Bureau of Labor Statistics No. 98, Washington, 1912, p. 28.
[6] In re Debs, 158 U. S. Reports, 564.
[7] Bulletin of the United States Bureau of Labor Statistics No. 98, p. 28.

the Newlands Act. In neither case were the appeals productive of any results whatever, so far as adjusting the immediate disputes was concerned. In the appeal under the Erdman law [8] the matter was in litigation in the courts for 14 months and in the meantime the parties to the controversy reached an agreement by direct negotiations. In the case under the Newlands Act the appeal on the part of the railroad company questioning the authority of the arbitration board was dismissed while the award continued operative as originally rendered by the arbitration board.[9]

In his comment on the first case mentioned above, the Commissioner of Labor, one of the mediators under the act, stated that it "was clearly demonstrated in this case that a provision for court appeals in an arbitration act must inevitably either remain a dead letter or defeat the very purpose of the law itself." [10]

Operations Under the Railroad Administration.

All controversies arising on railroads under Federal control which could not be settled by the disputants were first submitted to the division of labor of the Railroad Administration, by which they were referred to the appropriate agency for settlement. Cases involving the interpretation of existing agreements were filed with the proper adjustment board and cases affecting unorganized employees were filed with the assistant director of the labor division. Questions concerning interpretation of wage orders of the Director General were referred to him for decision. Matters involving changes in wages or working conditions and other questions unrelated to existing contracts were referred to the Board of Railway Wages and Working Conditions. This board handed down no decisions, but made recommendations to the Director General for his determination. The decisions of the adjustment boards were final. A few cases were appealed to the Director General, but in no case was the decision of the board reversed.

The following table indicates the number of cases handled and decisions rendered by Adjustment Boards Nos. 1, 2, and 3 from their inception until April 7, 1920.

CASES HANDLED AND DECISIONS RENDERED BY THE THREE RAILWAY BOARDS OF ADJUSTMENT DOWN TO APR. 7, 1920.

Board.	Number of cases.			Effect of decisions—			Cases withdrawn without decision.[a]
	Received.	Disposed of.	On hand.	In favor of carriers.	In favor of employees.	Compromised.	
Adjustment Board No. 1 (created Mar. 22, 1918)	2,089	1,944	145	829	627	49	439
Adjustment Board No. 2 (created May 31, 1918)	1,547	1,276	271	788	482	6	.....
Adjustment Board No. 3 (created Nov. 13, 1918)	630	533	97	182	260	66	25
Total	4,266	3,753	513	1,799	1,369	121	464

[a] In some instances these cases were settled locally; some were declared without the jurisdiction of the board.

[8] In re Southern Pacific Co., 155 Fed. 1001. In Bulletin of the United States Bureau of Labor Statistics No. 74, p. 206.

[9] In re Georgia & Florida Railway, 215 Federal, 195. In Bulletin of the United States Bureau of Labor Statistics No. 169, p. 50.

[10] Bulletin of the United States Bureau of Labor Statistics No. 98, p. 19.

The cases listed in the table involved only organized employees. On April 7, 1920, there had been 720 formal decisions of the division of labor of the Railroad Administration affecting unorganized employees who were not working under contract.

It is evident from the table that the majority of decisions of boards 1 and 2 were in favor of the carriers, while the majority of the cases decided by board 3 were in favor of the employees. The fact that the decisions were reached by equipartisan boards with no neutral umpire and were in many cases unanimous would indicate that the merits in each case were obvious, and that there would be no difficulty of enforcement. Boards 1 and 2, it will be remembered, handled cases involving the more thoroughly organized brotherhoods who had been strong enough to put into effect many changes in working conditions by their own initiative and were therefore in a comparatively strong strategic position when the railroads were taken over. Board No. 3, which rendered 260 decisions in favor of the employees and 182 in favor of the carriers, handled cases involving the more poorly paid employees and weaker organizations, including the railway clerks, telegraphers, switchmen, maintenance-of-way employees and shop laborers.

Railroad Labor Board.

THE Railroad Labor Board, created by the new transportation act, began functioning immediately upon its appointment and confirmation by the Senate.[11] The board had before it cases of all the principal railroad crafts and organizations of the country.

Concerted demands for wage increases had been pending before the Railroad Administration at the time of its dissolution on March 1. Subsequently these demands were considered at Washington by a joint conference of the railroad executives and the representatives of the principal labor organizations. This joint conference broke up without reaching an agreement just before the Railroad Labor Board was constituted. The railroad executives explained that they could not grant the increases requested as they were of the opinion that to do so would render necessary an increase in railroad rates and that therefore the question ought to be passed upon by the Railroad Labor Board. The board, sitting at Chicago, its headquarters, is now considering these demands after listening to voluminous briefs and arguments on behalf of both sides to the controversy.

The first action taken by the board was to issue Order No. 1, directing, in accordance with the provisions of the transportation act, that both carriers and employees and subordinate officials having differences in dispute should hold conferences of their respective representatives to attempt to compose their own differences before referring them to the board for hearing. Any request for intervention by the board, it was directed, must contain a statement of the facts in the case and the declaration "that the applicants have been and are complying with the requirements and provisions of the law." The effect of this order has been to exclude from hearing by the board the demands and grievances from representatives of the so-called outlaw labor organizations who had seceded from the older established

[11] MONTHLY LABOR REVIEW of the United States Bureau of Labor Statistics, May, 1920, pp. 46 to 48.

groups of unions. Certain of these outlaw groups, like the switchmen, had gone on strike in April, about the time the board was getting ready to function. These outlaw unions had been unable to secure conference with the carriers and therefore were unable to comply with the provisions of the first order of the board.

The board in response to an inquiry from the White House has promised to hand down its decision on or before July 20. In the meantime sporadic strikes, largely of switchmen, are recurring at widely separated points, and the whole railroad situation—financial, shipping, and labor—is uncertain and disturbed.

INDUSTRIAL RELATIONS.

Economic Importance of the Scientific Work of the Government.

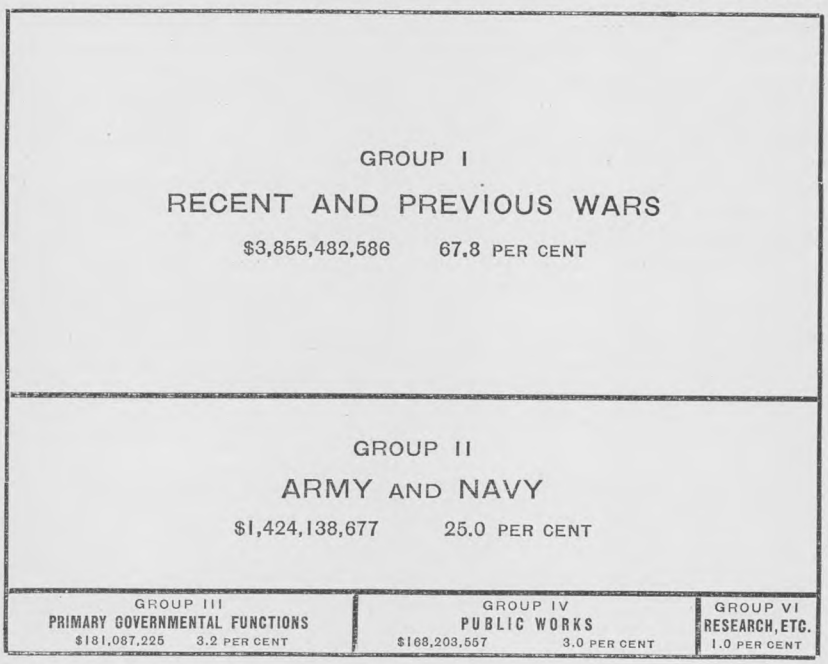
AN ADDRESS of timely interest and importance is that made on May 20, 1920, before the Washington Academy of Sciences by Dr. Edward B. Rosa, chief physicist, United States Bureau of Standards, on the subject of "The economic importance of the scientific work of the Government." In this address Dr. Rosa emphasizes the importance and economic value of scientific investigations by the Government, citing the preparation of Germany for the World War as an illuminating example, and then proceeds to point out and to support by illustration the very great value of standardization along various lines and of education and general development; how the Government is endeavoring, through its different research and investigatory agencies, to effect the advancement of the people generally; and, finally, the utter inadequacy of the appropriations made to carry on its work of research, education, and development. It is stated that of the total appropriations for the fiscal year ending June 30, 1920, as given in the supply bills and three deficiency bills prior to May 1, 1920, amounting to approximately $5,686,005,606, or about $50 per capita, only 50 cents per capita was appropriated for the threefold purpose mentioned. In view of the fact that the enormous expenditures due to the war have caused a careful scrutiny to be made of appropriations for scientific research, Dr. Rosa suggests that "it is desirable, therefore, to inquire whether scientific research as carried on by the Federal Government is a luxury or a necessity; whether it is something to be enjoyed when taxes are light and curtailed when taxes are heavy; or whether it is creative and wealth producing, and therefore to be increased and developed when expenses are abnormally large and a heavy debt must be liquidated. The question is, in short, whether scientific and industrial research and education are like good seed and fertilizer to a farmer, which are essential to the best success, or whether they are as luxuries to the rich which consume, but do not produce, and which would be curtailed when necessary expenses increase."

For the purpose of showing concretely the expenditures of the Government for various branches of its work the national budget for the fiscal year ending June 30, 1920, is divided into six parts, as shown in the following table and in Chart A, both of which give the actual appropriations and the per cent the appropriation for each group is of the total budget.

GROUPING OF GOVERNMENT EXPENDITURES FOR THE FISCAL YEAR ENDING JUNE 30, 1920.

Group.	Branch of Government work.	Amount.	Per cent.
I	Recent and previous wars, including interest on the public debt, pensions, war-risk insurance, rehabilitation and care of soldiers, deficit in the operation of railways, expenditures of the Shipping Board, European food relief, and the bonus to Government employees to partially cover the increased cost of living due to the war, a total of	$3,855,482,586	67.8
II	War and Navy Departments, including expenses somewhat above a permanent peace-time basis	1,424,138,677	25.0
III	Primary governmental functions, including Congress, President and White House staff, courts and penal establishments, Departments of Justice, State, Treasury, Interior, Commerce and Labor, Interstate Commerce and other commissions, one-half the District of Columbia, including all the necessary functions of Government other than defense, except the commercial activities of Group V and the research, educational, and developmental work of Group VI	181,087,225	3.2
IV	Public works, including rivers and harbors, public buildings, Reclamation Service, post roads, national parks, and railway in Alaska	168,203,557	3.0
V	Commercial or self-supporting activities, including the Post Office, Patent Office, Land Office, Panama Canal, and Housing Corporation, which, taken together, earn their expenses		
VI	Research, educational and developmental, including the wide range of work of the Agricultural Department, Geological Survey, Bureau of Mines, Coast and Geodetic Survey, Bureau of Standards, Bureau of Fisheries, Bureau of Foreign and Domestic Commerce, Bureau of Labor Statistics, Women's and Children's Bureaus, Board for Vocational Education, Colleges for Agriculture and Mechanical Arts, Library of Congress, Smithsonian Institution, and the Public Health Service	57,093,561	1.0
	Total	5,686,005,606	100.0

CHART A.—Distribution of Government Appropriations for Fiscal Year Ending June 30, 1920.



The distribution of expenditures for the various subdivisions of each of the main divisions into which Group VI is divided is shown in the following table and the main divisions of the group are illustrated in Chart B.

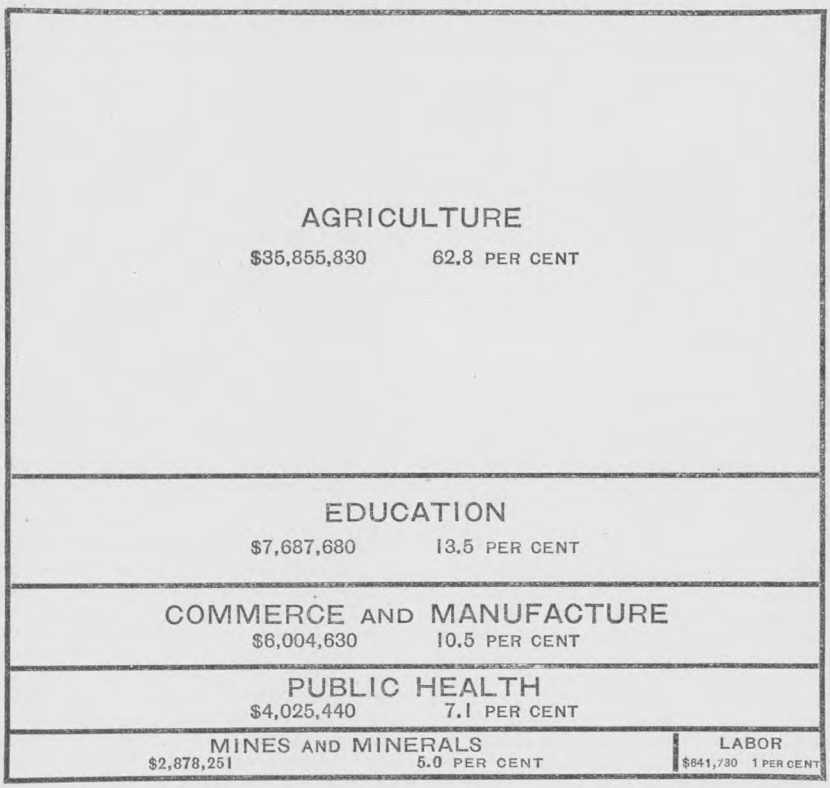
DISTRIBUTION OF EXPENDITURES OF THE VARIOUS SUBDIVISIONS OF GROUP VI, YEAR ENDING JUNE 30, 1920.[1]

Branch of Government work.	Amount.	Per cent.
Agriculture:		
Forest Service, less receipts of $4,750,000	$4,191,869.00	7.34
Bureau of Animal Industry	5,783,231.00	10.13
States Relations Service	4,905,820.00	8.59
Bureau of Plant Industry	3,379,638.00	5.92
Cooperative agricultural extension work	3,080,000.00	5.40
Bureau of Markets	2,811,365.00	4.92
Weather Bureau	1,880,210.00	3.30
Bureau of Entomology	1,371,360.00	2.40
Bureau of Chemistry	1,391,571.00	2.44
Bureau of Biological Survey	742,170.00	1.30
Bureau of Public Roads	594,320.00	1.04
Bureau of Soils	491,235.00	.86
Bureau of Crop Estimates	372,484.56	.65
Bureau of Farm Management and Farm Economics	302,590.00	.52
Horticultural, Insecticide, and Fungicide Boards	252,940.00	.44
Miscellaneous investigations	2,589,400.00	4.54
General administration	1,715,626.58	3.01
Total	35,855,830.14	62.80
Education:		
Federal Board for Vocational Education	3,182,000.00	5.57
Colleges for agricultural and mechanic arts	2,500,000.00	4.38
Library of Congress	925,825.00	1.62
Smithsonian Institution	715,957.51	1.25
Bureau of Education	241,960.00	.43
Howard University	121,937.75	.21
Total	7,687,680.26	13.46
Commerce and Manufactures:		
Coast and Geodetic Survey	1,925,370.03	3.37
Bureau of Standards	1,892,260.00	3.32
Bureau of Fisheries	1,274,490.00	2.23
Bureau of Foreign and Domestic Commerce	912,510.00	1.60
Total	6,004,630.03	10.52
Public Health	4,025,440.00	7.05
Mines and minerals:		
Geological Survey	1,661,353.50	2.91
Bureau of Mines	1,216,897.00	2.13
Total	2,878,250.50	5.04
Labor:		
Bureau of Labor Statistics	321,690.00	.57
Children's and Women's Bureaus	320,040.00	.56
Total	641,730.00	1.13
Grand total	57,093,560.93	100.00

[1] EDITORIAL NOTE.—The amounts appropriated as set forth in this table for the fiscal year ending June 30, 1920, have been greatly modified for the fiscal year ending June 30, 1921. Thus the amount appropriated for the United States Bureau of Labor Statistics has been reduced from $321,690 to $243,260, or a reduction of $78,430. Similarly the amount appropriated for the Children's Bureau has been reduced from $280,040 to $271,040, or a reduction of $9,000. The appropriation for the Women's Bureau, however, has been increased from $40,000 to $75,000. There is thus a net reduction of $52,430 in the appropriations for the three bureaus classified in the table under the general head of Labor.

Attention is particularly called to the fact that while of the total appropriations only 1 per cent was set aside for research, education, and development (Group VI), the total amount appropriated for these purposes in the field of labor, which is admittedly one of the greatest questions now engaging the attention of all classes of people in this country, is only a little over 1 per cent (1.13 per cent) of the total appropriations for Group VI. In other words, the amount devoted to research, education, and development in the field represented by the Bureau of Labor Statistics, the Children's Bureau, and the Women's Bureau, for the fiscal year ending June 30, 1920, was only a little more than 1 cent in every $100 appropriated for all purposes.

CHART B.—Distribution of Government Appropriations for Research, Education, and Development, Fiscal Year Ending June 30, 1920.



It will be seen from Chart A that, as already stated, based on a population of 110,000,000 people, approximately $50 per capita was appropriated in the fiscal year 1920 for operating expenses of the Federal Government and that of this amount only about 50 cents per capita, or 1 per cent of the total, was allowed for the wide range included in Group VI.

That is, of the $50 per year per capita collected for all purposes, $1.50 per year per capita is spent for what is here called the primary functions of government; nearly as much more is put into public works, and 50 cents per year is put back into research, educational and development work, to promote scientific research, to increase production and efficiency, to develop wealth, to promote the public health, and to conserve our natural resources. This is a very small part of the total, hardly enough to be regarded as a burden on the Nation. Indeed, one is led to wonder whether the total burden of taxation would not be lighter if the expenditure for scientific and developmental work were increased; if, for example, it were $1 per year per capita instead of 50 cents. In other words, if $110,000,000 were expended annually for this creative and productive work, would it not be easier to collect the five and a half billions for other purposes?

Research, Educational, and Developmental Work of the Departments.

TO ANSWER this question intelligently Dr. Rosa proceeds to describe in some detail the work of the various departments and bureaus of the Government doing research, educational, and development work primarily, taking up first the Agricultural Department, which, having to do with the most important industry in the country, is credited with 62.8 per cent of the expenditures included in Group VI. Other bureaus considered are the Geological Survey, Bureau of Mines, Bureau of Standards, Bureau of Foreign and Domestic Commerce, Bureau of Fisheries, Bureau of Labor Statistics, the Children's Bureau, the Women's Bureau, the Bureau of Education, Library of Congress, Smithsonian Institution, and the Public Health Service. Summing up his review of the work of these bureaus, Dr. Rosa says:

> The work of the Agricultural Department is carried forward on a large scale and produces results of great economic and social importance. Some of the other lines of work, though of great value, are not on a scale commensurate with the importance of the respective subjects.
>
> The success of industrial research work by the Government has been amply demonstrated. That Government laboratories have done scientific and technical work of the highest quality, and done it efficiently and acceptably to the public, is admitted by those well qualified to speak. Their efficiency will not suffer in comparison with that of commercial organizations. It is doubtful if any commercial organization could approach the performance of Government laboratories if the board of directors had maintained an inflexible and inadequate salary scale for all the more responsible technical and administrative positions.
>
> Scientists and engineers in the service of the Government appreciate the opportunity of carrying on researches and constructing public works in the public interest and of being able to make investigations and publish results unfettered by commercial considerations. In consideration of these advantages, many are willing to remain in the Government service at less salary than could be earned elsewhere. Until recently the Government has been able to retain its able men on the average nearly as well as the colleges and the industries. During the past few years, however, circumstances in this respect have changed. While the cost of living has nearly or quite doubled and salaries in the industries and in many of the colleges have been considerably increased, Government salaries have increased very little and in the higher grades not at all. The result is that in many cases men can not support their families, and are obliged to seek employment (or accept employment offered or urged upon them) at a living salary. In many cases men who are making a splendid success and have regarded the Government service as their career, leave their positions from necessity and with the greatest reluctance. Often these positions can not be filled and the work suffers or ceases altogether. It is believed, however, that this condition will not continue indefinitely. A readjustment of the salary scale must be made if the Government is to have the services of a competent and permanent staff to conduct its scientific and administrative work. In view of the splendid success achieved in the past, it does not seem possible that this essential part of an effective government will be allowed to disintegrate and go to pieces. Industrial research conducted by the Government with the active cooperation of the industries, and in some cases of the States, may be made even more important and successful in the future than in the past; for it is needed now more than ever, and is appreciated as never before.

In order to give a more concrete idea of the practical usefulness and economic importance of research and development work a number of specific cases are cited in the field of the Bureau of Standards. These include the work that that bureau has been doing to effect standardization in the building industries, standardization and testing of automobiles, economy in the use of gasoline and manufactured products, standardization of electrical batteries, testing and inspection of Government supplies, standardization of specifications for the purchase and sale of textiles and chemical products, and to advance

safety research and education by studying methods of reducing accidents in the industries, formulation of safety codes and rules, and, generally, working in cooperation with State accident boards and commissions. The economic value of standardization is pointed out and it is suggested that the Government is rendering a valuable service to the industries by cooperating actively in this constructive and useful work.

Nothing promotes economy and efficiency in the use of raw materials and finished products more than intelligent standardization, and the only practicable way is for all to cooperate and for the Government to take an active part, helping the manufacturers to study these problems of design and standardization intelligently and thoroughly. * * * Since the war, particularly, the high cost of labor and material has shown the necessity for economy and increased efficiency, and manufacturers are welcoming the assistance of the Government as never before.

Dr. Rosa believes that such work is constructive and wealth producing and yields returns a hundredfold upon the investment. Such cooperation reduces misrepresentation and exaggeration in selling.

Is it not the duty of the Government to cooperate more actively in this constructive way with the industries? No other agency can perform this important function. The Government would do only a part of the work, but that part is of great importance. Engineering societies, manufacturers' organizations, and individual manufacturing companies will do their part, and in many cases the greater part. But if the Government refuses to do its part on the ground that it would increase taxation, the public will not be satisfied with the reason given when it knows that at the present time out of $50 per capita per annum collected by the Government for all purposes, scarcely more than one cent per capita per annum[1] is expended by the Government for this important work, and 5 cents per year per capita would accomplish wonders. The matter is of so fundamental importance, and promises results of so great economic and social value, that it is to be hoped that some more adequate effort along this line may be made. It seems impossible that such effort would not succeed at least in part, and even a partial success would more than repay the cost.

The Government laboratories and their trained personnel were available during the war and they were used to the limit of their capacity.

In view of this experience, and the probability that science and technology will be no less important in the future than in the past, the question naturally arises whether the Government is making adequate preparation for scientific research as a part of its program of military preparedness. In time of war the civil branches of the Government will be called upon immediately for service, and they will be able to render invaluable service if they are adequately equipped and manned. In the meantime, pending the arrival of the war, which we hope will never come, they will be able to render useful service in civil problems and so be more than self-supporting. This kind of preparation for war, which adds nothing to the military budget if the civil departments are adequately supported, should appeal to all as practicable and desirable.

The following excerpts from the summary of Dr. Rosa's argument present in brief form his reasons for believing the Government should appropriate more liberally for research, education, and development work, for which it now sets aside a paltry 1 per cent of its entire budget.

1. The Government should be constructive and helpful to the people and to business wherever possible. It should develop the industries, assist in improving commercial and industrial methods, and furnish technical information to manufacturers and others, as well as develop agriculture and the public domain. By rendering such service the Government tends to establish good relations with business, to elevate business methods, to increase efficiency and to educate in many ways large sections of the public. The many services thus rendered cost very little in the aggregate as compared with the total expense of the Government, but they are of great practical value and are

[1] Based on the appropriation for the Bureau of Standards, which was over a million dollars

appreciated by the people. One per cent of the total expenses of the Government spent in this constructive way seems a very small proportion in view of the wide range and the economic value of such work.

2. But a part of this 1 per cent is incurred in behalf of the Government itself, to enable the Government to purchase its supplies intelligently and to do business in a businesslike way. Without this research and testing work, the Government would waste more in buying than it would save by eliminating the research and testing. Making purchases without full technical information is embarrassing to public officials and unsatisfactory to business; whereas by always using intelligently drawn specifications and making adequate tests, the Government can save money, elevate its own service, and improve business methods. Much but not enough of this kind of work is now done. It is the duty of the Government to set a good example before the business world of efficient and intelligent methods and fair dealing; neither accepting goods below the specified quality nor demanding more than is specified. The Government would spend less for its purchases if it spent more in standardizing the products purchased and in testing deliveries systematically.

3. But apart from the service the Government can render its citizens, and the benefit to the State resulting from scientific, educational, and developmental work, and apart from the benefit to the Government of having the results of such work in constructing buildings and other public works, and carrying on its business, this kind of work develops wealth, and the increased wealth can be taxed and hence there is a third reason for increasing such work. The war has made it necessary to raise many times the revenue formerly required, and the taxation is now an important issue. Economizing in the use of raw materials, using cheaper materials, reducing waste, developing the public domain, increasing manufacturing efficiency, reducing distribution costs, all tend to create wealth and to make it easier for the Government to raise the needed revenue. Therefore, if there were no other reason, this consideration should appeal to legislators and business men alike; namely, that research and development work by the Government develop wealth, and the burden of taxation is thereby lightened.

4. But there is another powerful economic reason for increasing the productive developmental work of the Government. The rising cost of living not only leads to hardship and distress, but to industrial unrest, strikes, disorders, and great economic losses to the Nation. In order to check rising prices, and if possible bring down prices, it will be necessary to increase production. To do this it is necessary to reduce waste and increase efficiency. This requires greater intelligence and fuller knowledge, and calls for education, the results of scientific investigation and of intelligent and extensive industrial research. The Government could not and should not do it all. But neither should it refuse to do its part, and its part often is to take the lead in a constructive and statesmanlike way. It is stupid and blind to think that because taxes are heavy we can not afford to do things intelligently. If a farmer's barn burns down, he would not sell half his supply of seed and fertilizer to buy lumber and then plant only half a crop. He would, if necessary, borrow money to buy more seed and plant a larger crop than usual, in order to increase his income and pay for the new barn more easily. Intelligent research by the Government, in cooperation with the industries, is like seed and fertilizer to a farmer. It stimulates production and increases wealth, and pays for itself many fold. It is as productive and profitable in peace as in war.

5. Finally, if the reasons already adduced are not sufficient there remains the military reason. The development of our intellectual, moral, and material resources is the best preparation for war. Food and manufacturing facilities, and adequate supplies of raw materials and transportation systems and scientific attainments and the equipment and trained personnel available for military research, these together with an intelligent citizenry and a just cause are the best preparation for war. A standing army and fleets of battleships are not a sufficient preparation, even if the army is armed to the teeth and the battleships are the heaviest, or the swiftest in the world. The Great War demonstrated that modern wars are not of armies but of peoples, and their resources and their intellectual and industrial resourcefulness are more important than the initial equipment of armies and fleets. Therefore, a government that pays much attention to education and research and industrial developmental work is making the best preparation for possible wars of the future. This fortunately produces good results if war never comes. By increasing the power and prestige of the Nation, such preparation tends to prevent war and so pays for itself twice over.

First Annual Convention of the Industrial Relations Association of America.

THE Industrial Relations Association of America held its second annual convention in Chicago from May 19 to 21, 1920. The new organization is a result of a change in the name and constitution of the earlier National Association of Employment Managers, the first convention of which was held in Cleveland in 1919. The broadening of the scope of the society is sufficiently indicated by the change in its title. That the new organization makes a wider appeal than the older one did may be inferred from the large number of delegates (more than 1,800) attending the recent convention and the interest manifested in the proceedings.

The makers of the program of the recent convention had to face the problem of giving adequate expression to the broader purposes of the new organization and at the same time providing opportunity for the discussion of definite practical problems. The method adopted to meet the situation may be seen from an examination of the program. The general meetings of the association, occurring in the morning, afternoon, and evening of each day were devoted to papers of a broad and general significance. The discussion of narrower, concrete problems of industrial relations was provided for by the arrangement of subject luncheon meetings and sectional dinner meetings for each day of the convention.

Of the papers presented at the general meetings, only a few can be referred to in this brief review of the convention. The keynote speeches of the first session breathed a spirit of optimism with respect to the possibility of establishing equitable and satisfactory relations between employers and employees which was considerably dampened as a result of experiences related, and discussions carried on in some of the luncheon and dinner meetings later in the session. The problem of determining the right line of conduct in the treatment of labor is not as simple as it appeared to Mr. Cyrus McCormick of the International Harvester Co., who gave the address of welcome, or to Mr. P. W. Litchfield, of the Goodyear Tire & Rubber Co., who read the opening paper. The injunctions "to follow the dictates of your conscience" or "to put yourself in the other fellow's place," however unassailable they may be morally, leave something to be desired from a practical point of view.

In the light of the analysis of present and past industrial conditions by Dean L. C. Marshall, of the School of Commerce of the University of Chicago, the significance of many phases of the present industrial situation and the direction in which the efforts of industrial managers may be expected to attain results in the way of productive effort on the part of the employees were clearly brought out. Similarly Miss Mary Van Kleeck's paper on the "Status of woman in industry" illustrated the advantage that sometimes comes from approaching these problems with a disinterested point of view.

That the foreman is in many cases the chief stumbling block in the way of introducing and operating enlightened methods of personnel management has long been recognized. Naturally, therefore, it was hoped that in the papers presented under the general subject, "Fore-

men of the present and future," some light might be shed on the question of what to do with an unwilling foreman. The authors of the papers, Mr. Leroy Kramer, of the Willys-Overland Co., and Mr. A. C. Horrocks, of the Goodyear Tire & Rubber Co., seemed to think that the foreman was the most abused man in the plant, to whom everyone higher up passed the "buck;" and it was implied that the difficulties that arose between personnel men and foremen were usually due to injudicious behavior on the part of the personnel men themselves. In spite of rather persistent efforts put forth by one or two members of the audience to find out how an obstructive foreman should be treated the apparent conviction of the authors of the papers that "there was no such animal" seemed to remain unchanged. Some significance in this connection may be attached to the fact that when a request was made that those members of the audience now occupying positions in personnel work who had previously been foremen should indicate that fact, more than half the audience responded.

The most dramatic session of the convention was the one in which "Organized labor in industry" was discussed by Mr. E. J. McCone, general manager of the Buffalo Commercial, and Mr. Sidney J. Hillman, president of the Amalgamated Clothing Workers of America. the former denouncing the "closed-shop" principle in general and especially in the publishing rooms of the newspaper press, while Mr. Hillman discussed the subject from the standpoint of union labor.

The two addresses at the final meeting of the convention, one by Prof. John R. Commons, of the University of Wisconsin, and the other by Mr. Jas. A. Emery, counsel for the National Association of Manufacturers, were among the most thoughtful and suggestive addresses of the convention. Prof. Commons, whose name did not appear on the program, was drafted into service that he might present the scientific and impartial point of view with respect to those phases of the labor problem on which difference of opinion had developed during the meeting just described. Prof. Commons raised the whole question above the plane of any particular form of trade-union activity to the level of general principles and historical evolution. Mr. Emery presented what may be called without disparagement an ultra-legal view of the relations of capital and labor.

Space is lacking in the present brief notice to list the large number of subjects discussed in the various subject luncheon meetings and sectional dinner meetings; and so many of these special sessions were interesting and instructive that the selection of a small number of them for special comment would seem invidious. It may be mentioned in passing that judging from the members attending, the interest shown, and the duration of the meetings, the subject making an appeal to the largest number of delegates was "Americanization."

If one might be pardoned for making a suggestive criticism of the general arrangement of the program of the convention, it would be this: Too much time was given up to the large general meetings, and too little to sectional meetings for the discussion of definite concrete problems. The result of crowding the sectional meetings into the lunch periods and the dinner periods was that from a half dozen to a dozen meetings were scheduled for the same hour, only one of which a delegate could attend, although he might be interested in several.

If either mornings or afternoons, or possibly both, had been given up to sectional meetings, each devoted to a practical discussion of some phase of the broad question of industrial relations, the program would have been better balanced, and at least the younger and less experienced men among the delegates better satisfied. The feeling was frequently expressed among these younger men that while they were getting lots of inspiration and enlightenment and breadth of view from the general meetings, they were not deriving as much direct help for the solution of their practical problems as they had hoped to obtain from hearing in detail of the practices and experiments of older and more experienced delegates.

Appointment of Anthracite Wage Board.

THE attempt of the anthracite coal operators and miners to negotiate a new wage scale to replace the one entered into November 15, 1918, which expired on March 31, 1920, having failed, the President, on June 4, appointed a commission of three to hear and decide the questions in dispute, suggesting that its report be submitted within 60 days, if possible, and stipulating that such report form the basis of a new wage agreement to be retroactive to April 1, 1920. When it seemed improbable that an agreement would be reached after several sessions of the operators' and miners' representatives, and following an attempt by the Secretary of Labor to bring the two sides together on a mutually satisfactory basis, the President offered to appoint a wage board constituted similarly to the one appointed by him in the bituminous industry (see MONTHLY LABOR REVIEW for December, 1919, pp. 61–78, and for April, 1920, pp. 40–50). This offer was accepted by the miners and operators, each of whom agreed to abide by the board's decision, also that there should be no strikes or lockouts in the industry pending the report of the commission. The personnel of the commission is as follows:

William O. Thompson, president of Ohio State University, Columbus, representing the public.

Neal J. Ferry, McAdoo, Pa., member of the executive committee of the United Mine Workers of America, representing the miners.

William L. Connell, Scranton, Pa., representing the operators.

Adjustment of Labor Disputes in the Garment Industries in Cleveland.[1]

THE importance of securing continuous production as a war measure led to the appointment in 1918, by the Secretary of War, of referees to adjudicate issues in dispute between employers and workers in the cloak, suit, dress, and skirt industries of Cleveland. These were represented on the one hand by the Cleveland Garment Manufacturers' Association and on the other by the International Ladies' Garment Workers Union and six local unions of

[1] Report of board of referees, supplementary award and contingent agreement between the Cleveland Ladies' Garment Workers Union, Locals 26, 27, 29, 37, 42, and 94, International Ladies' Garment Workers Union, and the Cleveland Garment Manufacturers' Association. [Cleveland, 1920] 28 pp.

workers in various lines of the related industries. Continuing interest exists in the action of this group of employers and workers on account of their agreement to carry on this method of adjusting disputes, although the emergency which led to its adoption has passed.

The action of the Secretary of War followed upon requests made by the employers and a representative of the garment workers, who were at the time on strike. After the appointment, and upon direction of the referees appointed, the workers then on strike returned to work and were taken back by their former employers. The referees promptly engaged in an investigation of conditions in Cleveland and in other cities which are centers of a similar industry. There was a general recognition of good faith on all sides, of a purpose to secure a knowledge of the actual facts, and a fair and impartial spirit in the matter of suggesting remedies. It was agreed at the time the appointment of referees was requested that awards should date back to August 1, 1918. The wages fixed were to continue for a period of not less than eight months, subsequent adjustments to be made on the basis of changes in the cost of living. The award was made October 19, 1918, and employers were allowed until November 16 to make reimbursements of differences accrued since August 1.

In devising what might be called a permanent plan, certain principles were laid down as necessary for careful consideration. Conceding the vital importance of a maximum efficiency, it was said to be of equal importance and a necessary adjunct to such efficiency that there should be a proper respect for the essential human rights of the workers and an adequate safe-guarding of the conditions under which they labor and of the sufficiency of their remuneration. A quotation was made from the report of the council of conciliation in the cloak and suit industry of New York in which it was said:

> Industrial efficiency may not be sacrificed to the interest 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 second principle was in brief a recognition of the necessity for adequate and impartial methods of promptly adjusting grievances and disputes if workers are not to strike and employers are not to lock their workmen out.

The last point was imposed by the terms of submission to the referees of the matters in dispute, which were to the effect that the manufacturers were not to be required to enter into agreements with the unions, nor the unions to enter into agreements with the manufacturers and associations, "but that the decisions of the said referee or referees shall be the working agreement of both parties."

The referees first emphasized the right of both workers and employers to enter into organizations representing their respective interests, through which also collective agreements should be made and recognized by all members of the organizations involved. Employers should not discharge workers because of trade-union membership or legitimate activities, nor should workers use coercive methods either to secure members or to induce employers to bargain with them. Where union-shop conditions exist they are continued, and where union and nonunion workers are found in the

same establishments, or the employer limits employee representation to persons in his establishments, the continuance of such conditions is not to be regarded as a grievance.

One of the prime causes of difficulty had been the piece rates, and pending the final action, it was agreed that piece prices should be fixed on an hourly basis determined by the referees under an agreement with committees of workers acceptable to the manufacturer. Different prices for piecework were fixed for women only when doing a different class of work, the general rule being equal pay for equal work. Both week workers and piece workers were to receive pay for overtime at the rate of time and one-half, a method of computing rates for pieceworkers being described. Adjustment of back pay for pieceworkers was also the subject of special agreements between the shopkeepers and workers, subject to the referees in case of dispute.

A supplemental award was subsequently given, embodying the results of continued investigation. This award presented a wage schedule establishing rates for workers who had not yet attained full proficiency, thus standardizing what had heretofore been left to the individual judgment of the employers, which was felt to be likely to cause disputes, "however honestly intended." Since this schedule made new calculations necessary, the time for adjusting back pay was extended until November 30, 1918.

Terms of the Agreement.

THE method of procedure and the principles controlling were embodied in a "continuing agreement" signed December 24, 1919, by representatives of the Garment Manufacturers' Association, the International Ladies' Garment Workers Union, and the joint board of six locals, as well as by the three referees. A preamble sets forth the "primary responsibility to the consuming public" under which "workers and owners are jointly and separately responsible for the cost and quality of the service rendered." Cooperation and mutual helpfulness are declared to be the basis of right and progressive industrial relations, intimidation and coercion having no proper place in American industry. The agreement is further made "to provide a means whereby the parties may cooperate, both to preserve peace in the industry and to further their mutual interests in the common enterprise." Previously adopted principles and awards are accepted in so far as not inconsistent with expressed provisions of this agreement. A permanent board of referees is established with power to adjust matters which can not be settled between the parties, to provide periodical wage scales for the industry, and to see that the agreement is fairly observed by the parties to it. An annual scrutiny of wage scales is to be made on or about October 1 of each year, recommendations to be made within 30 days, the scale to be effective not earlier than December 1, and to be in force for the year next ensuing unless changes due to cost of living appear to be necessary after four months, or on or about April 1.

Disputes between an employer and an employee in an individual shop, affecting a member of the union, are to be taken up first by the employer or his representative and the worker or his representative,

the latter to be an employee of the same shop. In case of failure to adjust matters, the manager of the union and the manager of the manufacturers' association will take charge. Disputes of a general nature, as regarding hours of work, sanitary standards, wage scales, classifications, etc., are to be taken up directly by the manager of the union and the manager of the association. If they are unable to reach a satisfactory agreement, the matter is to be arbitrated by a representative of the referees, who has the full power of the board, subject only to the right of appeal to the board on matters relating to principle or policy.

Piecework is relegated to a subordinate position, the principle of week work being approved, but with arrangements for due regard to the productive value of the individual worker, based on fair and accurate standards, these standards being subject to review by the referees. Inside subcontracting is eliminated, each worker to be employed directly by the firm in whose shop he is employed, and receiving his pay from the firm and not from any other employee.

Workers in outside shops are to be paid at the same rate as established by the referees for workers in the inside shops, and no employer is knowingly to give out work to any outside shop which does not maintain the scale, or which otherwise fails to abide by the awards, rules, or decisions of the referees, or refuses to submit a dispute to the referees or their representatives. During slack periods work must be distributed among all the workers of a given shop or of a given division of the shop as equitably as possible. The agreement is to be administered so as not to intentionally weaken the position of either of the parties to it, but rather to maintain the integrity of all organiziations concerned. The manufacturers' association and the union are to cooperate in seeing that decisions, rules, and disciplinary measures promulgated by the referees are faithfully executed or complied with. Strikes and lockouts during the life of the agreement are forbidden unless previously authorized by the referees.

The agreement is to remain in force until December 31, 1921, and shall be automatically renewed from year to year unless terminated by written notice given by either party at least three months before the end of the year. Amendments or reconsideration of the terms of the agreement may be suggested by either party on similar notice. The expenses of the referees and their representatives are to be borne equally by the union and the manufacturers' association.

A general schedule for workers beginning the trade and covering the first year is embodied in Schedule A, which is as follows:

Men.	Per week.
For the first 6 weeks	$16
For the next 4½ months	20
For the next 6 months	23
Women.	
For the first 6 weeks	$14
For the next 4½ months	16
For the next 3 months	18
For the next 3 months	20

Schedule B bears date of January 1, 1920, and establishes rates for the different employments in the coat and suit industry, the skirt

industry, and the dress industry. An appendix gives an account of the procedure in a case in which a worker was disciplined by his union for an attempt to violate the agreement, a fine of $25 being imposed. The matter was submitted to a referee, it appearing that the manufacturers employing the offending worker, who had failed to pay his fine, continued to keep him in their employment, thus nullifying all attempts at discipline. The rule was laid down that it was the duty of the association and of the union alike to see that the terms of the agreement are lived up to and that manufacturers must individually be loyal to the association and the members individually loyal to the union. Neither organization should disregard the action properly taken by the other within the scope of its own authority.

The worker can not evade his responsibility by leaving the union, nor can he avoid compliance with the order of the grievance committee by doing so. The manufacturers are duty bound to assist in the enforcement of the agreement. If they continue to employ the worker, as long as he has not been purged of his violation, they are in effect assisting in the violation of both the letter and the spirit of the agreement.

British Industry and Finance at the End of the War.[1]

DURING the war the annual study of industry and finance, made by the section of economic science and statistics of the British Association, while containing much else of interest, was devoted largely to a consideration of the extent and results of the employment of women in occupations which had formerly been looked upon as men's exclusively. In the latest report of the section, which has recently appeared, the same plan is followed, but conditions have changed so entirely that this main part is of much less interest than the one chapter dealing with the decrease in the number of women industrially employed since the signing of the armistice.

The book contains four chapters dealing with the replacement of men by women in industry during the year ending April, 1918, giving both a general view of the subject and a more detailed inquiry into the situation in the engineering and metal trades, the clothing trades, and in communication and transport. A fifth chapter takes up the position of women in industry, after the signing of the armistice, giving data as to numbers employed up to April, 1919. These five chapters constitute the first section of the book; the second takes up financial questions, dealing with the banking position, currency, foreign exchange, and what the author terms "reaping the inflation harvest." This section was written after active warfare ended, and brings the situation down to the middle of 1919.

The study of the extent to which women were replacing men in industry during the year 1917–18 follows the lines of similar studies for the preceding years of the war. One of the most striking features of the year was the rapid growth of trade-unionism among women.

This increase has been most noticeable in the great general unions which have for the most part been organizing women in the engineering trades; the membership of

[1] Industry and Finance (supplementary volume), being the results of inquiries arranged by the section of economic science and statistics of the British Association during the years 1918 and 1919. Edited by Adam W. Kirkaldy. London, 1920, 150 pp.

the National Federation of Women Workers is now [September, 1918] 50,000, and the National Union of General Workers has acquired 15,000 new female members during the past year. But there has been a startling increase in the numbers enrolled in industrial unions. The United Garment Workers' Union has 50,000 women members now, an increase of 30,000 on the numbers of a year ago; the Amalgamated Society of Tailors and Tailoresses has trebled its female membership; and the General Union of Textile Workers has added at least 20,000 women to its numbers, more than trebling its membership.

Between the signing of the armistice and April, 1919, the industrial changes, complicated as they were by the payment of unemployment benefits and by the uncertainty as to what form the bill to restore prewar practices might take, were so numerous that the report hesitates to draw any conclusion as to the permanent effect of their war experiences upon the position of women in industry. Following the cessation of hostilities there was a marked increase in the number of men and decrease in the number of women industrially employed, so that in April, 1919, the percentage of women to the total number of workpeople was only 3.4 higher than it was in July, 1914.

To a considerable extent the dropping of women took place in the strictly war industries, and represented rather a cessation of demand for the particular kind of work they were doing than their replacement by men. As the peace-time industries revived, however, men rather than women were taken on, sometimes even in processes which in prewar days had been looked upon as women's, so that the net result of the movement was to lessen materially the field for women's employment. The movement of the sexes in and out of the industrial field between the signing of the armistice and April, 1919, is shown in the following table:

RELATIVE INCREASE OR DECREASE IN EMPLOYMENT OF MALES AND FEMALES, FROM NOVEMBER, 1918, TO APRIL, 1919, IN INDUSTRIAL UNDERTAKINGS AND MUNICIPAL AND GOVERNMENT ESTABLISHMENTS.

Sex and age group.	November, 1918.		April, 1919.			
	Number employed.	Per cent of total workers of each sex.	Number employed.	Per cent of total workers of each sex.	Increase (+) or decrease (−) as compared with number employed since November, 1918.	
					Number.	Per cent.
Men (over 18 years of age)	4,333,000	82.4	4,973,000	85.2	+640,000	+14.7
Boys (under 18 years of age)	925,000	17.6	866,000	14.8	− 59,000	− 6.3
Total	5,251,000	100.0	5,839,000	100.0	+589,000	+11.0
Women (over 18 years of age)	2,325,000	78.1	1,785,000	74.5	−539,400	−23.2
Girls (under 18 years of age)	652,000	21.9	612,000	25.5	− 40,000	− 6.1
Total	2,977,000	100.0	2,397,000	100.0	−579,000	−19.5

In agriculture, in finance and commerce, in the civil service and in professional pursuits, the decrease in the number of women employed was less marked than in industry proper. Whether this situation will change as unemployment becomes more pressing is uncertain. Apparently there is a tendency to look upon industrial employment as the prerogative of men, and to allow women to retain it only when there is an abundance for all comers.

Any difficulty experienced by men in obtaining work will act against the retention of women, for the claim of the returned soldier is strong and rouses quick sympathy. Much, as far as women are concerned, depends, therefore, on the extent to which men are absorbed into industry in the near future.

Banking, Currency, and War Finance.

THE sections on banking, currency, and war finance show the extent of the credit expansion which took place during the war, and give a full statement of the position of the Bank of England in July, 1919, as compared with August 6, 1913, and various intervening dates. For joint stock banks and savings banks, the figures are brought up only to the summer of 1918. Some space is devoted to the amalgamation movement between banks, which had "attained such dimensions that it aroused fears in the commercial world of the establishment of a money trust." A committee was appointed in March, 1918, to investigate the situation and report whether the movement was really a menace. In May the committee reported that while there was no indication of any attempt to establish a banking combine or money trust, "it appears to us not altogether impossible that circumstances might produce something approaching to it at a comparatively early date." The committee therefore recommended that it should be made obligatory to obtain the approval of the Government before any further amalgamations should be announced or effected.

A chronological review is given of the various measures taken by the Government to finance the war, and the rapid increase in the cost of warfare as the years passed is shown. The total average daily expenditures were as follows:

Year ending Mar. 31, 1914	£541,000 ($2,632,776.50, par.)
Year ending Mar. 31, 1915	£2,059,000 ($10,020,123.50, par.)
Year ending Mar. 31, 1916	£4,260,000 ($20,731,290.00, par.)
Year ending Mar. 31, 1917	£6,022,000 ($29,306,063.00, par.)
Year ending Mar. 31, 1918	£7,387,000 ($35,948,835.50, par.)
Year ending Mar. 31, 1919	£7,067,000 ($34,391,555.50, par.)

For the period from April 1, 1919, to August 2, 1919, the total average daily expenditure was £4,028,000 ($19,602,262, par).

The actual total expenditure of the Government from August 2, 1914, to August 2, 1919, was £10,031,841,492 ($48,819,956,620.82, par). Subtracting from this the normal expenditures for the five years, assuming that these had increased at the rate of the ten years preceding the war, and subtracting also half of the loans made to the Allies, as it is presumed that this amount will eventually be repaid, the conclusion is reached that the money cost of the war to the United Kingdom up to August 2, 1919, was about £8,000,000,000 ($38,932,000,000, par).

Development of the Labor Situation in Australia.[1]

Development and Growth of Trade-Unions.

UNTIL the middle of the nineteenth century, the occupied parts of Australia had been mainly devoted to pastoral pursuits. The discovery of gold, however, in 1851 attracted immigrants

[1] This article is a summary of a report prepared for the Bureau of Foreign and Domestic Commerce, Department of Commerce, by Trade Commissioner A. W. Ferrin, Melbourne, Australia.

from Europe. Many of these, finding the gold fields less lucrative than expected, drifted to the towns and cities, where they adopted mechanical pursuits. This increase in population of the cities gave impetus to the building trades, and it was in these and in printing that the first trade-unions were formed, with the limitation of working hours as the chief object. These early unions were governed by the English acts of 1824 and 1825, which recognized the right of workmen to combine, but construed combination in restraint of trade to be unlawful.

The eight-hour day was first secured by Sydney stonemasons as early as 1855, and this shortened week gradually gained ground until it became general throughout the continent in 1896. With it unionism made rapid progress, owing to industrial expansion, and by 1885 over 100 unions were in existence, with an aggregate membership exceeding 50,000. Increased wages were secured, through numerous strikes, and trades-union acts were passed in New South Wales, Victoria, and Queensland recognizing unions as lawful bodies on an equality with other organizations.

This period was followed by some reaction and a decrease in number and membership, although a movement toward a community of interest between the various unions in each colony gained headway. Several intercolonial labor conferences were held—at Sydney in 1879 and 1885, at Melbourne in 1884, Adelaide in 1886, Brisbane in 1888, and Hobart in 1889—through which it was decided to obtain direct labor representation in the State parliaments, with the formulation of a labor electoral program, thus endowing the labor unions with a distinctly political mission. A disastrous general strike in 1890 accentuated the desire of unionism to make its power impressively felt, and until the formation of the Commonwealth the Labor Party grew, becoming a very important factor in the politics of all States.

After the establishment of the Commonwealth of Australia in 1900, labor carried the general elections and appointed a labor ministry in 1904. It again secured control of the Commonwealth Government in 1908–9, in 1910–1913, and in 1914–1916. In 1916, when the conscription issue split the party, its leader joined the Liberals in forming a "national" ministry, which administered the government during the remainder of the war and since, though returning to office in December, 1919, with a decreased and small majority over the labor representation. An interstate federation of unions, which had been a subject of discussion at all the intercolonial congresses except the first, reached fruition in 1913 with a simple scheme of national organization. At present, 95 out of 394 separate associations and groups of associations are organized on an interstate basis, these having a membership of 470,000. The total number of unionists, including members of bodies not having interstate affiliations, is estimated at 580,000, or more than 10 per cent of the entire population of the Commonwealth.

In each of the metropolitan towns, as well as in some industrial centers, central organizations, known as the labor or trades hall council, or the labor federation, have been established, these central organizations electing members to the national council. There are 4 central councils in New South Wales, 5 in Victoria, 5 in Queensland, 3 in South Australia, 10 in West Australia, and 1 in Tasmania.

The membership in unions by trades in Australia at the end of 1919 is indicated in the following official table:

MEMBERSHIP OF TRADE-UNIONS IN AUSTRALIA AT END OF 1919, BY INDUSTRY GROUP.

Industry group.	Membership.	Industry group.	Membership.
Wood, furniture, etc	17,066	Railway and tramway	74,813
Engineering, metal works	47,135	Other land transport	14,487
Food, drink, tobacco, etc	40,953	Shipping, etc	50,433
Clothing, hats, boots, etc	29,908	Pastoral, agricultural	44,176
Books, printing, etc	11,972	Domestic, hotels, etc	11,169
Other manufacturing	30,673	Miscellaneous	133,855
Building	35,761		
Mines, quarries, etc	35,519	Total	581,755

Labor Legislation.

AUSTRALIA is well provided with labor laws, hours, wages, and conditions of labor being carefully regulated by legislation, State or Federal. In several States liberal provision is made for workers killed or injured in industrial disputes, old-age and invalid pensions are paid, and minimum wages, based on the statistically arrived at cost of living, are decreed by courts and boards for the settlement of industrial disputes and strikes. In general, it may be said that in no country in the world is the welfare of the worker hedged about by more legal safeguards than in Australia.

Not accepting existing conditions as ideal, however, the official Labor Party includes in its program many policies of a socialistic nature, such as the nationalization of industries, railways having long been nationalized, or State owned; public services in most municipalities, including tramways, being publicly owned and operated; and industrial enterprises, such as sugar refining, being state owned. The Commonwealth Government owns and operates a large line of overseas cargo boats. This trend toward Government ownership is particularly strong in Queensland, where somewhat radical measures of regulation of prices, including in many cases confiscation of commodities, have been adopted.

Regulation of Wages, Hours, and General Labor Conditions.

TWO systems, based upon different principles, are in operation in Australia for the regulation of wages, hours, and general conditions of labor. The "wages board" system, prevailing in Victoria and Tasmania, has as its chief aim the prevention of disputes by the regulation of wages, hours, etc., by a special board appointed for a specific industry on application or petition; while under the "industrial arbitration court" system, prevailing in Western Australia, an industry does not ordinarily come under review until after a dispute has actually arisen. New South Wales, Queensland, and South Australia have both systems.

The Wages Board System.

Introduced into Victoria in 1896, the wages board system at first covered only the employment of women and children in a few occu-

pations, but has been extended by subsequent legislation to cover practically every industry and trade for all classes of labor. The action of this system is briefly as follows:

The minister of labor, upon being asked by employers or employees in a certain industry, to move the appointment of a special board for that industry, introduces a resolution in the State parliament which must be passed by both houses. An order in council is then issued, constituting a board of not less than 4 and not more than 10 members, who are selected by the minister from nominations in the daily papers, opportunities for protest being given through the same channel, by employers and employees in the given industry. When constituted, the board elects a chairman who votes only in case of a tie. The decisions of the board are submitted to the minister for approval, and the employers and employees may appeal from the board's decision to a court composed of a judge of the supreme court of the State, appointed for a fixed period, and one representative each of the employers and employees, appointed for the duration of the case in review. The decision of this court is final and is enforced by the factories and shops department.

In practically every trade minimum wages, based upon statistical figures of the cost of living, have been established. With the recent rapid rise in the cost of living, dissatisfaction with the awards is common, resulting in more frequent demands for revision. At the end of 1919 the State wages board of New South Wales proposed for all trades a minimum wage of £3 17s. 6d. [$18.86, par] a week for married men with families, which represented an increase of 17s. 6d. [$4.26, par] a week. This suggestion, however, failed of parliamentary sanction and the New South Wales manufacturers maintained that this minimum wage, being above the average of the trades in other States, handicapped them in competition with other factories, and have started an agitation for a minimum wage for the Commonwealth which would put all States on an equal footing.

The Industrial Arbitration Court System.

Since under the industrial arbitration court system industries do not come under review until a dispute has arisen, it is quite feasible for the two systems to work together as they do in New South Wales, Queensland, and South Australia. Where wages boards are unable to settle satisfactorily the conditions in a given industry, either side can appeal to the industrial arbitration court and all agreements which have been reached by conferences between employers and employees can be registered with the court, thus acquiring the standing of court awards.

The diverse provisions of the laws of the various States have lead to movements either to extend the jurisdiction of the Commonwealth court over all industrial matters, or to adopt uniform laws for all States.

Penalties Against Strikes and Lockouts.

THE penalties against breaches of awards and against striking and locking out do not seem to have been altogether effective. The most drastic provisions are those of New South Wales, where in addition to a small pecuniary penalty, the union which strikes may be

deregistered and lose all status under the act and the provision whereby a court may direct employers to give preference to union labor may also be canceled. A fine of £1,000 [$4,866.50, par] is imposed upon an employer who locks his men out and his status or that of the association may be taken away. In other States the money penalty against strikes is small. In South Australia strike leaders may be imprisoned for three months, as may also be leaders of strikes in contravention of awards and orders of the Commonwealth court.

The smallness of the penalties as contrasted with the interest involved in any serious industrial dispute and the infrequency with which penalties have been imposed, appear to have hampered the efficacy of the system. The following table is indicative of the extent and consequences of strikes in the Commonwealth from 1913, the first year in which systematic collection of such statistics was undertaken, through 1918:

STRIKES IN AUSTRALIA, 1913 TO 1918, INCLUSIVE.

[£1 at par=$4.8665.]

Year.	Number of disputes.	Number of establishments affected.	Number of work people involved.			Number of working days lost.	Total estimated loss in wages.
			Directly.	Indirectly.	Total.		
1913	208	921	33,493	16,790	50,238	623,528	£287,739
1914	337	1,203	43,073	27,976	71,049	1,090,395	551,228
1915	358	942	57,005	24,287	81,292	583,225	299,633
1916	508	1,536	128,546	42,137	170,683	1,678,930	967,604
1917	444	1,941	154,061	19,909	173,970	4,399,658	2,594,808
1918	298	1,154	42,533	13,886	56,439	380,653	372,384
Total	2,152	7,697	458,781	144,985	603,716	8,756,389	5,073,346

Of the total strikes by far the greatest number, 1,411, occurred in New South Wales.

Strikes in 1919.

THE full number of strikes and disputes in 1919, with figures of persons involved and losses of wages, has not yet been tabulated. Numerous brief strikes affecting only localities took place but were quickly compromised by yielding in general to the claims of labor. Other strikes of great seriousness and affecting industries generally were:

Seamen's Strike.

The seamen's strike, which lasted 15 weeks and caused an estimated loss of wages of $15,000,000, tied up all interstate shipping for 11 weeks and forced the suspension of many industries in Victoria dependent upon coal imported from New South Wales. It is estimated that 30,000 persons were thrown out of work in Victoria and that 100,000 persons were directly affected, while practically the whole population of Victoria, as well as an appreciable percentage of that of the other States, was indirectly but seriously affected. Tasmania and New Zealand were almost entirely isolated from the mainland for 14 weeks.

Marine Engineers' Strike.

In December, 1919, a strike of marine engineers began, lasting until February 25, 1920. This was typical "direct action," the strikers maintaining that the great and rapid increase in the cost of living rendered the Commonwealth Arbitration Court's prewar award obsolete. They further asserted that overseas engineers were being better remunerated than those engaged in Australian coastal trade. The strike caused an almost complete cessation of interstate water traffic for 10 weeks, and practically isolated New Zealand from Australia as well as tying up two trans-Pacific passenger steamers and delaying the sailing of a number of boats to England. Industries subsisting on sea-borne coal from New South Wales were in a number of cases closed down and severe restrictions on the domestic and industrial use of gas and electricity were imposed. It is estimated that at least 15,000 persons were thrown out of work by this strike, though the engineers number but a few hundred, and that the total loss of wages reached $5,000,000.

Reiterated refusals on the part of the engineers to submit their demands to the Commonwealth arbitration court were followed by a drastic edict of the Federal Government, which made it an offense to contribute money or goods to the Institute of Marine Engineers or to cash a draft presented by a member of the institute, with a penalty of £100 [$486.65, par], six months' imprisonment, or both. The marine engineers withstood this action for two weeks and then agreed to accept the offer of the shipowners to advance their wages a certain amount and submit the difference between their demands and the shipowners' offer to an independent tribunal, but not to the Commonwealth arbitration court. Under the agreement the Government canceled the edict and promised to drop the action for deregistration of the union. This "compromise" proved satisfactory and ships were promptly manned and commerce and industry resumed. Wages of marine engineers were fixed in 1912 by the Commonwealth arbitration court at £12 [$58.40, par] per month for the lowest grade to £34 [$165.46, par] for the highest. These were increased in 1917 by 15 per cent and raised again in 1918 to £15 [$73, par] and £42 [$204.39, par], respectively. Under the agreement by which they returned to work they were to be paid £19 [$92.46, par] for juniors and £51 [$248.19, par] for chiefs of large boats, with the question of increases to be considered by a tribunal specially appointed for the purpose.

Important direct consequences of the engineers' strike, aside from its purely labor aspects, are the impetus which it gave to the development of the brown coal fields of Victoria, from which it is expected to supply Melbourne with electrical power and render the city independent of New South Wales coal; and the decision of one of the leading shipping companies trading with the Pacific Islands to eliminate Australia from its itineraries.

Broken Hill Strike.

One of the most protracted industrial disturbances in recent Australian history has been the strike of miners at Broken Hill, New South Wales, which began in May, 1919.

Originally this strike was not one of employees against employers, but beginning with a revolt of mine carpenters against the New South Wales Arbitration Court, grew with an interunion dispute between the Federal Engine Drivers' Association and the Amalgamated Miners' Association, in which members of each refused to work with members of the other, and only when all the underground work had been suspended for weeks, developed into a strike of miners against the owners of the mines. Work having ceased, the two disputing unions conferred and peace was restored between them with the mutual agreement that neither union would interfere with the other nor accept any agreement with the mining companies which was not acceptable to the other. However, the Amalgamated Miners' Association decided to act independently, and presented to the mining companies a set of demands which it declined to submit to arbitration, and which the companies refused to concede. As the strike progressed, the Federated Engine Drivers' Association, which favored arbitration of the demands, decided not to be bound by its agreement with the Amalgamated Miners' Association, and returned to work. Altogether about 1,700 union men are working on the surface, and the pumping and other work necessary to keep the mines alive has been continued, but the 5,272 miners employed in the underground work are insistent upon their demands for a 6-hour shift, five days a week, abolition of the contract system and of the night shift, and a flat wage rate of £1 [$4.87, par] a day for all men and boys. The companies are as determined as the men and the arbitration court appears powerless, and there the matter stands.

The Broken Hill strike is interesting, probably unique, in the way in which it has been financed. Funds have been received regularly from unions throughout Australia and from individuals, amounting to £1,500 [$7,299.75, par] a week, which by means of an ingenious and well-carried out relief system have been sufficient to maintain the strikers in reasonable comfort. In the distribution of strike relief, supplies are purchased by a central committee and given out in return for coupons, allotted to each striker according to the number dependent upon him, and all handling and distribution is done by organized parties of strikers. Firewood is distributed through a special store; school children are provided with soup and bread at noon; a shoe making and repairing shop has been established where strikers understanding cobbling work without pay, the leather being purchased out of the general fund; a barber shop is run on the same principle, and the single men among the strikers have formed a mess camp in which they cook, serve, and clean up by turns.

No violence has occurred at any time during the strike, and as long as contributions continue the Amalgamated Miners' Association, it seems, will be able to maintain the strike without difficulty. Strike breaking by means of nonunionists imported from other States is out of the question, for practically every miner in Australia belongs to a union, and there is no foreign population or immigration to draw upon. Both sides in the struggle are so strong that an ending of the strike in 1920 without interference by the State does not seem likely, and the State has not the constitutional power to force a settlement.

The Forty-Hour Week Movement.

WHILE the motive of the majority of recent strikes in Australia has been mainly a desire for increased wages to compensate the increased cost of living, a new movement is gaining headway which has for its object a further reduction of working hours from the 48 per week. This has spread to unions of all sorts in all States and, though considered by the Commonwealth arbitration court, any decision by that body is pending further deliberation. The ultimate result of the agitation is uncertain, but the present strength of the labor element of the population predicts that the erasure of Saturday from the working week is not unlikely.

The "Lazy Strike."

ANOTHER feature of Australia's labor disputes is the "go-slow" policy, or "lazy strike," which reduces output to a minimum, with the idea of forcing concessions from capital. It has been adopted with much effect in the Government dockyards, where the riveters reduced their average of rivets to 73 per day per man against a normal of 273; by telephone operators, who refused to answer more than a certain number of calls per day; and at several ports, especially Townsville, Queensland, where the wharf laborers have taken up the "go-slow" policy so successfully that a number of overseas shipping companies have eliminated Townsville as a port of call, declaring that they could not get their boats unloaded in the time allotted them.

The Industrial Future.

IN general, it may be said that neither capital nor labor finds the existing legislation for the avoidance and settlement of industrial disputes in Australia satisfactory. Labor is dissatisfied with the wage-board system because it fixes wages for a period, before the completion of which the rapid advance in the cost of living has made the award inadequate; and with arbitration because it believes that more can be obtained by direct action than by resorting to courts. Capital objects to both systems because of the alleged difficulty of inducing labor to abide by awards and determinations, and the belief that the boards and courts are too radical.

Commercial interests in Australia have expressed the desire that a new system be established whereby the employers and employees can meet on friendly terms and come to a proper understanding of each other's difficulties. In line with this idea, a royal commission has been appointed, sitting at Melbourne, to consider the subject of industrial unrest and to fix, if possible, a basic wage for the whole Commonwealth.

PRICES AND COST OF LIVING.

Retail Prices of Food in the United States.

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

Table 1 shows for the United States retail prices of food on April 15 and May 15, 1920, and on May 15, 1919, as well as the percentage changes in the month and in the year. For example, the price of sugar in May, 1919, was 10.6 cents; in April, 1920, 20.2 cents; and in May, 1920, 25.4 cents. The figures show an increase of 26 per cent in the month and an increase of 140 per cent in the year. The cost of 22 articles combined [2] increased 3 per cent in the month and 17 per cent in the year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, MAY 15, 1920, COMPARED WITH MAY 15, 1919, AND APR. 15, 1920.

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

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) May 15, 1920, compared with—	
		May 15, 1919.	Apr. 15, 1920.	May 15, 1920.	May 15, 1919.	Apr. 15, 1920.
		Cents.	*Cents.*	*Cents.*		
Sirloin steak	Pound	44.4	43.2	43.4	− 2	+ 0.4
Round steak	do	41.6	39.9	39.9	− 4	0
Rib roast	do	35.2	33.5	33.4	− 5	− 0.3
Chuck roast	do	29.7	26.6	26.5	− 11	− .4
Plate beef	do	22.5	19.0	18.8	− 16	− 1
Pork chops	do	43.0	43.2	42.5	− 1	− 2
Bacon	do	56.7	51.6	52.6	− 7	+ 2
Ham	do	54.5	53.6	55.5	+ 2	+ 4
Lamb, leg of	do	39.6	43.0	42.1	+ 6	− 2
Hens	do	43.5	47.8	47.1	+ 8	− 1
Salmon (canned)	do	31.9	37.8	37.1	+ 16	− 2
Milk, fresh	Quart	14.9	16.3	16.2	+ 9	− 1
Milk, evaporated (unsweetened)	15–16 oz. can	15.1	14.4	14.7	− 3	+ 2
Butter	Pound	67.9	76.1	71.6	+ 5	− 6
Oleomargarine	do	40.4	43.2	43.3	+ 7	+ 0.2
Nut margarine	do	35.3	36.1	36.5	+ 3	+ 1
Cheese	do	42.2	42.8	42.9	+ 2	+ 0.2
Lard	do	38.8	30.1	29.8	− 23	− 1
Crisco	do	33.9	37.5	37.2	+ 10	− 1
Eggs, strictly fresh	Dozen	53.1	52.8	52.9	− 0.4	+ 0.2
Bread	Pound	9.8	11.2	11.5	+ 17	+ 3
Flour	do	7.5	8.1	8.7	+ 16	+ 7
Corn meal	do	6.2	6.5	7.4	+ 19	+14

[1] In addition to retail prices of food, the Bureau secures prices of coal, gas, and dry goods from each of 51 cities and publishes these prices as follows: Coal, in the March and September issues of the MONTHLY LABOR REVIEW; gas, in the June issue; dry goods, in the April, July, October, and December issues.

[2] The following are the 22 articles, weighted according to the consumption of the average family: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, tea. These include all articles for which prices have been secured each month since 1913 with the exception of lamb, for which the Bureau has no consumption figures.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, MAY 15, 1920, COMPARED WITH MAY 15, 1919, AND APR. 15, 1920—Concluded.

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (−) May 15, 1920, compared with—	
		May 15, 1919.	Apr. 15, 1920.	May 15, 1920.	May 15, 1919.	Apr. 15, 1920.
		Cents.	*Cents.*	*Cents.*		
Rolled oats	Pound	8.5	10.4	10.5	+ 24	+ 1
Corn Flakes	8-oz. pkg.	14.1	14.1	14.1	0	0
Cream of Wheat	28-oz. pkg.	25.1	29.9	30.1	+ 20	+ 1
Macaroni	Pound	19.3	20.3	20.7	+ 7	+ 2
Rice	do	13.4	18.6	18.7	+ 40	+ 1
Beans, navy	do	12.0	11.8	11.8	− 2	0
Potatoes	do	3.3	9.1	9.6	+191	+ 5
Onions	do	10.7	10.1	8.0	− 25	−21
Cabbage	do	9.6	9.2	8.4	− 12	− 9
Beans, baked	No. 2 can	17.5	16.8	16.8	− 4	0
Corn, canned	do	19.1	18.5	18.6	− 3	+ 1
Peas, canned	do	19.0	19.0	19.1	+ 1	+ 1
Tomatoes	do	15.8	15.1	15.1	− 4	0
Sugar, granulated	Pound	10.6	20.2	25.4	+140	+26
Tea	do	69.8	73.3	74.0	+ 6	+ 1
Coffee	do	40.5	49.1	49.2	+ 21	+ 0.2
Prunes	do	23.2	28.4	28.3	+ 22	− 0.4
Raisins	do	16.5	26.9	27.4	+ 66	+ 2
Bananas	Dozen	38.8	41.7	43.2	+ 11	+ 4
Oranges	do	54.1	64.6	71.8	+ 33	+11
22 weighted articles [1]					+ 17	+ 3

[1] See note 2, p. 67.

Table 2 shows for the United States average retail prices of specified food articles on May 15 of each year, 1913 to 1920, together with the percentage change in May of each year compared with May, 1913. For example, as compared with the price in May, 1913, sugar showed a decrease of 7 per cent in 1914. In May, 1915, the price showed an increase of 26 per cent; in May, 1916, an increase of 59 per cent; in May, 1917, an increase of 87 per cent; in May, 1918, an increase of 69 per cent; in May, 1919, an increase of 96 per cent; and in May, 1920, an increase of 370 per cent. This means that the price of sugar in May, 1920, was nearly five times as much as it was in May, 1913.

The cost of 22 articles combined increased 123 per cent during the seven-year period.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MAY 15 OF EACH YEAR, 1914 TO 1920, COMPARED WITH MAY 15, 1913.

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

Article.	Unit.	Average retail price May 15—								Per cent of increase (+) or decrease (−) May 15 of each specified year, compared with May 15, 1913.						
		1913	1914	1915	1916	1917	1918	1919	1920	1914	1915	1916	1917	1918	1919	1920
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak	Pound	25.6	25.8	25.8	27.7	32.3	40.0	44.4	43.4	+ 1	+ 1	+ 8	+ 26	+ 56	+ 73	+ 70
Round steak	do	22.2	23.3	23.0	24.9	29.6	38.0	41.6	39.9	+ 5	+ 4	+ 12	+ 33	+ 71	+ 87	+ 80
Rib roast	do	20.0	20.3	20.1	21.7	25.8	31.8	35.2	33.4	+ 2	+ 1	+ 9	+ 29	+ 59	+ 76	+ 67
Chuck roast	do	16.1	16.5	16.1	17.5	21.5	27.8	29.7	26.5	+ 2	0	+ 9	+ 34	+ 73	+ 84	+ 65
Plate beef	do	12.2	12.5	12.2	13.0	16.3	21.9	22.5	18.8	+ 2	0	+ 7	+ 34	+ 80	+ 84	+ 54
Pork chops	do	20.9	22.3	20.9	22.9	30.6	36.7	43.0	42.5	+ 7	0	+ 10	+ 46	+ 76	+106	+103
Bacon	do	26.9	26.8	26.5	28.5	41.8	50.5	56.7	52.6	−0.4	− 1	+ 6	+ 55	+ 88	+111	+ 96
Ham	do	26.7	26.7	25.6	29.3	38.7	45.6	54.5	55.5	0	− 4	+ 10	+ 45	+ 71	+104	+108
Lamb, leg of	do	19.4	19.8	21.7	23.2	29.7	36.8	39.6	42.1	+ 2	+ 12	+ 20	+ 53	+ 90	+104	+117
Hens	do	22.2	22.7	21.4	24.1	29.3	37.9	43.5	47.1	+ 2	− 4	+ 9	+ 32	+ 71	+ 96	+112
Salmon (canned)	do			19.8	20.0	25.7	29.6	31.9	37.1							
Milk, fresh	Quart	8.8	8.9	8.8	8.8	10.4	13.2	14.9	16.2	+ 1	0	0	+ 18	+ 50	+ 69	+ 84
Milk, evaporated (unsweetened)	15–16 ounce can.							15.1	14.7							
Butter	Pound	35.9	32.7	34.7	37.2	46.7	51.0	67.9	71.6	− 9	− 3	+ 4	+ 30	+ 42	+ 89	+ 99
Oleomargarine	do							40.4	43.3							
Nut margarine	do							35.3	36.5							
Cheese	do	21.9	22.8	23.4	24.8	33.8	33.4	42.2	42.9	+ 4	+ 7	+ 13	+ 54	+ 53	+ 93	+ 96
Lard	do	15.8	15.5	15.1	16.8	27.8	32.9	38.8	29.8	− 2	− 4	+ 6	+ 76	+108	+146	+ 89
Crisco	do							33.9	37.2							
Eggs, strictly fresh	Dozen	26.3	26.7	26.1	28.2	40.0	42.4	53.1	52.9	+ 2	− 1	+ 7	+ 52	+ 61	+102	+101
Bread	Pound	5.6	6.2	7.2	7.0	9.5	9.9	9.8	11.5	+ 11	+ 29	+ 25	+ 70	+ 77	+ 75	+105
Flour	do	3.3	3.3	4.6	3.9	8.8	6.6	7.5	8.7	0	+ 39	+ 18	+167	+100	+127	+164
Corn meal	do	2.9	3.1	3.3	3.2	5.3	7.0	6.2	7.4	+ 7	+ 14	+ 10	+ 83	+141	+114	+155
Rolled oats	do							8.5	10.5							
Corn Flakes	8-ounce package.							14.1	14.1							
Cream of Wheat	28-ounce package.							25.1	30.1							
Macaroni	Pound							19.3	20.7							
Rice	do	8.6	8.7	9.1	9.1	10.5	12.3	13.4	18.7	+ 1	+ 6	+ 6	+ 22	+ 43	+ 56	+117
Beans, navy	do			7.6	9.4	19.1	17.8	12.0	11.8							
Potatoes	do	1.6	1.9	1.5	2.4	6.0	2.2	3.3	9.6	+ 19	− 6	+ 50	+275	+ 38	+106	+500
Onions	do			4.3	5.1	8.6	5.6	10.7	8.0							
Cabbage	do							9.6	8.4							
Beans, baked	No. 2 can							17.5	16.8							
Corn, canned	do							19.1	18.6							
Peas, canned	do							19.0	19.1							
Tomatoes, canned	do							15.8	15.1							
Sugar, granulated	Pound	5.4	5.0	6.8	8.6	10.1	9.1	10.6	25.4	− 7	+ 26	+ 59	+ 87	+ 69	+ 96	+370
Tea	do	54.4	54.7	54.4	54.6	55.9	63.8	69.8	74.0	+ 1	0	+0.4	+ 3	+ 17	+ 28	+ 36
Coffee	do	29.8	29.7	30.0	29.9	30.1	30.1	40.5	49.2	−0.3	+ 1	+0.3	+ 1	+ 1	+ 36	+ 65
Prunes	do			13.7	13.3	15.3	16.5	23.2	28.3							
Raisins	do			12.5	12.6	14.4	15.1	16.5	27.4							
Bananas	Dozen							38.8	43.2							
Oranges	do							54.1	71.8							
22 weighted articles.[1]										+ 1	+ 3	+ 12	+ 55	+ 63	+ 91	+123

[1] See note 2, p. 67.

Relative Retail Prices of 22 Articles of Food.

IN TABLE 3 the average monthly and yearly prices of 22 food articles[3] are shown as relative prices or percentages of the average prices for the year 1913. These relatives are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. Relative prices must be used with caution. For example, the relative price of pork chops in November, 1919, was 200, which means that the money price was 200 per cent of the money price in 1913, or, in other words,

[3] For list of articles, see note 2, p. 67.

the price doubled. The relative price of pork chops in December was 181, showing a drop of 19 points from 200, which is a decrease of only 9.5 per cent.

In the last column of this table are given index numbers [4] showing the changes by months and years in the retail cost of the 22 food articles weighted according to the importance of each article in the consumption of the average family. Prices are obtained each month for 43 food articles, but only 22 of these are included in the retail food price index, because the amounts consumed by the average family have been obtained as yet for only these 22 food articles. These articles comprise about two-thirds of the entire food budget of the average family and reflect with great accuracy changes in the cost of the food budget. The figure representing the cost of these 22 food articles was 211 in April and 216 in May. This shows that, as compared with 1913, the cost of these food articles was in May, 1920, more than double what it was in 1913, and that during the month from April to May there was an increase of 3 per cent in the cost of these articles.

The curve shown in the chart on page 74 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The chart has been drawn on the logarithmic scale,[5] because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

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[4] For a discussion of the method used in the computation of these index figures, see MONTHLY LABOR REVIEW for March, 1920, p. 34.

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

TABLE 3.—RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, 1907 TO MAY, 1920.

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese.	Milk.	Bread	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee	Tea.	22 weighted articles.
1907	71	68	76	.....	.....	74	74	76	81	81	84	85	.....	87	.....	95	88	.....	105	105	.....	.....	82
1908	73	71	78	.....	.....	76	77	78	80	83	86	86	.....	90	.....	102	92	....	111	108	.....	.....	84
1909	77	74	81	.....	.....	83	83	82	90	89	93	90	.....	91	.....	109	94	.....	112	107	.....	.....	89
1910	80	78	85	.....	.....	92	95	91	104	94	98	94	.....	95	.....	108	95	.....	101	109	.....	.....	93
1911	81	79	85	.....	.....	85	91	89	88	91	93	88	.....	96	.....	102	94	.....	130	111	.....	.....	92
1912	91	89	94	.....	.....	91	91	91	94	93	99	98	.....	97	.....	115	102	.....	132	115	.....	.....	98
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**	**100**	**100**
January	94	92	95	93	92	89	94	93	97	95	108	107	100	100	100	100	99	99	91	106	100	100	98
February	94	93	95	93	93	90	95	94	98	97	91	108	100	100	100	100	98	99	90	100	100	100	97
March	97	96	98	98	98	97	97	97	99	100	77	108	100	100	100	100	98	99	88	99	100	100	97
April	101	99	101	101	101	103	99	99	100	104	73	106	100	100	100	100	98	99	87	98	100	100	98
May	101	100	101	101	101	100	100	99	100	104	76	94	99	99	100	101	98	99	91	97	100	100	97
June	102	101	102	102	101	99	101	102	100	103	81	92	99	99	100	101	98	99	104	97	100	100	98
July	104	104	102	103	101	103	104	104	101	102	87	91	99	99	100	101	98	100	110	100	100	100	100
August	104	104	102	103	101	104	105	106	102	101	96	92	100	99	100	100	100	100	109	102	100	100	101
September	103	104	101	103	102	108	104	104	102	101	109	98	100	100	100	100	102	100	110	104	100	100	102
October	101	104	101	103	102	107	103	102	101	100	121	100	101	100	100	99	103	100	106	101	100	100	104
November	100	102	100	102	102	102	101	100	101	97	144	101	102	102	100	99	104	100	107	99	100	100	105
December	99	101	100	101	102	97	99	99	100	98	138	104	102	102	100	99	104	100	106	98	100	100	104
1914: Av. for year	**102**	**106**	**103**	**104**	**104**	**105**	**102**	**102**	**99**	**102**	**102**	**94**	**104**	**100**	**112**	**104**	**105**	**101**	**108**	**108**	**100**	**100**	**102**
January	99	102	100	102	102	99	98	98	100	100	126	104	104	102	110	98	104	100	108	95	99	100	104
February	99	102	101	103	102	100	98	99	99	104	106	93	104	102	110	99	103	100	108	94	99	100	101
March	100	103	101	102	102	100	99	99	99	105	90	92	105	101	110	99	103	100	107	93	100	100	99
April	100	103	102	103	102	103	99	99	99	108	74	86	104	100	110	99	103	100	105	91	100	100	97
May	102	105	102	103	103	106	99	99	98	106	77	85	103	100	110	99	103	100	112	91	100	101	98
June	103	106	103	104	103	103	100	100	97	103	82	88	103	100	110	99	103	100	132	93	100	101	99
July	106	109	105	106	104	106	101	103	97	103	87	89	103	100	110	98	103	101	155	95	99	101	102
August	110	113	108	109	107	119	107	108	99	104	96	94	103	100	112	106	105	101	111	143	100	101	107
September	107	110	105	108	107	113	108	108	99	103	107	98	104	100	114	113	109	101	105	145	100	101	107
October	103	107	104	106	106	110	106	105	98	100	113	98	104	101	114	111	109	101	89	132	99	101	105
November	100	105	103	104	105	104	104	102	99	97	131	103	104	101	114	112	109	101	83	113	99	101	105
December	101	103	101	103	103	93	103	100	97	94	139	103	104	101	116	113	107	101	84	110	99	101	105
1915: Av. for year	**101**	**103**	**101**	**101**	**100**	**96**	**100**	**97**	**93**	**97**	**99**	**93**	**105**	**99**	**124**	**126**	**108**	**104**	**89**	**120**	**101**	**100**	**101**
January	100	102	101	101	102	88	101	98	97	95	120	101	105	101	120	124	109	104	85	110	101	100	103
February	98	100	100	99	101	85	99	96	97	97	98	98	106	100	126	138	110	104	84	118	101	100	101
March	97	99	99	98	100	85	98	95	96	99	74	94	106	99	126	136	111	104	82	120	101	100	98
April	99	100	100	99	100	94	98	94	96	100	75	94	105	99	126	137	109	104	86	122	101	100	99
May	101	103	101	101	101	99	98	95	96	101	76	91	106	98	128	139	109	104	89	124	101	100	100
June	103	105	103	103	101	98	99	97	95	98	78	90	106	98	128	130	109	104	99	126	101	100	100
July	105	107	104	103	101	100	100	98	93	97	81	90	105	98	126	125	108	104	85	127	101	100	100
August	104	107	204	103	101	103	100	98	89	97	88	88	103	99	126	124	108	104	82	123	101	100	100
September	104	106	103	102	101	107	100	97	88	97	101	88	103	99	124	117	108	104	79	118	100	100	101

TABLE 3.—RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, 1907 TO MAY, 1920—Concluded.

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese.	Milk.	Bread.	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee	Tea.	22 weighted articles.
1915, etc.—Concld.																							
October	103	104	102	101	99	110	101	99	91	97	117	92	104	100	124	113	108	104	94	111	100	100	103
November	101	102	101	99	98	99	101	100	92	95	133	95	105	100	122	113	107	104	97	119	100	100	104
December	99	101	100	99	98	87	101	100	92	95	135	101	107	100	122	114	107	104	106	124	100	100	105
1916: Av. for year	**108**	**110**	**107**	**107**	**106**	**108**	**106**	**109**	**111**	**111**	**109**	**103**	**117**	**102**	**130**	**135**	**113**	**105**	**155**	**146**	**100**	**100**	**114**
January	101	102	101	99	99	89	101	101	93	101	123	100	110	100	122	120	107	105	136	123	100	100	107
February	101	102	102	99	100	92	101	102	94	104	101	99	112	100	124	125	108	104	141	125	100	100	106
March	104	104	104	103	102	104	103	104	96	107	82	105	113	100	124	120	107	104	140	137	100	100	107
April	106	108	106	106	105	107	104	107	100	111	79	108	113	99	124	119	108	104	138	145	100	100	109
May	109	112	110	109	107	109	105	109	106	113	82	97	112	99	124	119	108	104	140	156	100	100	109
June	113	117	113	113	111	110	107	110	108	114	87	95	111	99	124	117	108	105	167	158	100	100	112
July	113	116	112	112	109	111	107	111	110	113	93	93	110	100	124	116	108	105	134	160	100	100	111
August	112	115	111	110	107	116	108	111	111	112	105	95	111	101	126	134	110	105	141	155	100	100	113
September	111	115	110	110	107	125	110	114	118	113	120	102	116	102	136	148	113	105	161	141	100	100	118
October	108	111	108	108	106	118	110	114	123	114	132	109	122	105	144	155	117	105	165	149	100	100	121
November	106	108	106	107	106	111	111	114	135	112	149	114	132	109	150	174	126	105	198	157	100	100	126
December	106	107	106	106	106	106	110	114	137	112	154	118	140	112	138	167	131	105	198	151	100	100	126
1917: Av. for year	**124**	**130**	**126**	**131**	**130**	**152**	**152**	**142**	**175**	**134**	**139**	**127**	**150**	**125**	**164**	**211**	**192**	**119**	**253**	**169**	**101**	**107**	**146**
January	109	111	109	109	108	113	110	114	136	119	158	118	141	112	140	171	132	105	225	146	100	100	128
February	113	117	114	116	116	125	114	118	138	126	147	122	142	112	142	171	136	104	290	148	100	100	133
March	116	119	118	128	121	133	123	125	151	129	101	121	146	112	144	174	137	104	297	160	101	101	133
April	125	130	127	131	132	146	141	136	167	136	112	133	150	114	150	206	154	108	339	175	101	101	145
May	127	133	130	134	135	146	155	144	176	138	116	122	153	117	168	266	178	121	352	183	101	103	151
June	129	135	132	137	137	148	158	145	177	136	119	123	153	119	170	246	182	125	366	170	101	104	152
July	129	137	130	137	136	151	159	147	174	131	122	120	149	125	176	220	195	123	246	166	103	110	146
August	130	138	129	136	134	164	160	147	176	131	134	124	148	128	182	229	219	122	206	181	102	111	149
September	131	133	131	137	135	185	164	152	188	142	152	129	152	132	176	223	272	124	172	179	102	112	153
October	130	138	130	136	136	185	178	159	198	146	160	133	158	143	176	214	232	128	178	177	102	113	157
November	124	133	127	132	134	165	179	159	207	138	168	138	156	144	176	208	235	131	183	174	102	114	155
December	126	134	128	134	134	161	181	161	211	143	184	142	156	147	166	205	235	133	178	172	102	114	157
1918: Av. for year	**153**	**165**	**155**	**166**	**170**	**186**	**196**	**178**	**211**	**177**	**165**	**151**	**162**	**156**	**175**	**203**	**227**	**148**	**188**	**176**	**102**	**119**	**168**
January	129	137	130	138	142	163	180	162	208	154	195	148	156	151	168	200	233	134	188	173	102	115	160
February	131	141	133	142	146	160	179	163	209	170	182	151	158	151	170	200	233	136	188	193	102	112	161
March	133	143	135	145	150	161	181	164	210	(1)	128	144	159	151	171	200	240	138	147	167	102	113	154
April	144	155	148	159	164	170	183	166	209	(1)	123	132	154	148	175	200	237	139	129	165	101	117	154
May	157	170	161	174	181	175	187	170	208	178	123	133	151	148	177	200	233	141	129	165	101	117	158
June	168	182	169	184	188	177	191	173	206	177	123	133	150	146	179	203	223	144	171	165	101	119	162
July	166	181	168	182	185	180	194	181	206	178	142	137	152	148	179	203	223	148	229	167	101	120	167
August	163	178	165	177	179	201	200	180	209	181	155	141	157	153	177	206	227	154	229	169	101	121	171
September	164	178	165	178	181	220	208	193	213	185	170	155	163	161	177	206	230	157	229	175	102	122	178
October	161	175	163	174	178	216	214	193	216	183	186	170	174	166	175	203	227	161	206	193	102	124	181
November	159	173	162	172	175	206	216	195	216	185	215	174	184	173	175	203	217	161	194	196	103	125	183
December	159	171	161	171	174	197	217	198	216	180	235	190	193	176	175	203	213	160	188	196	109	124	187

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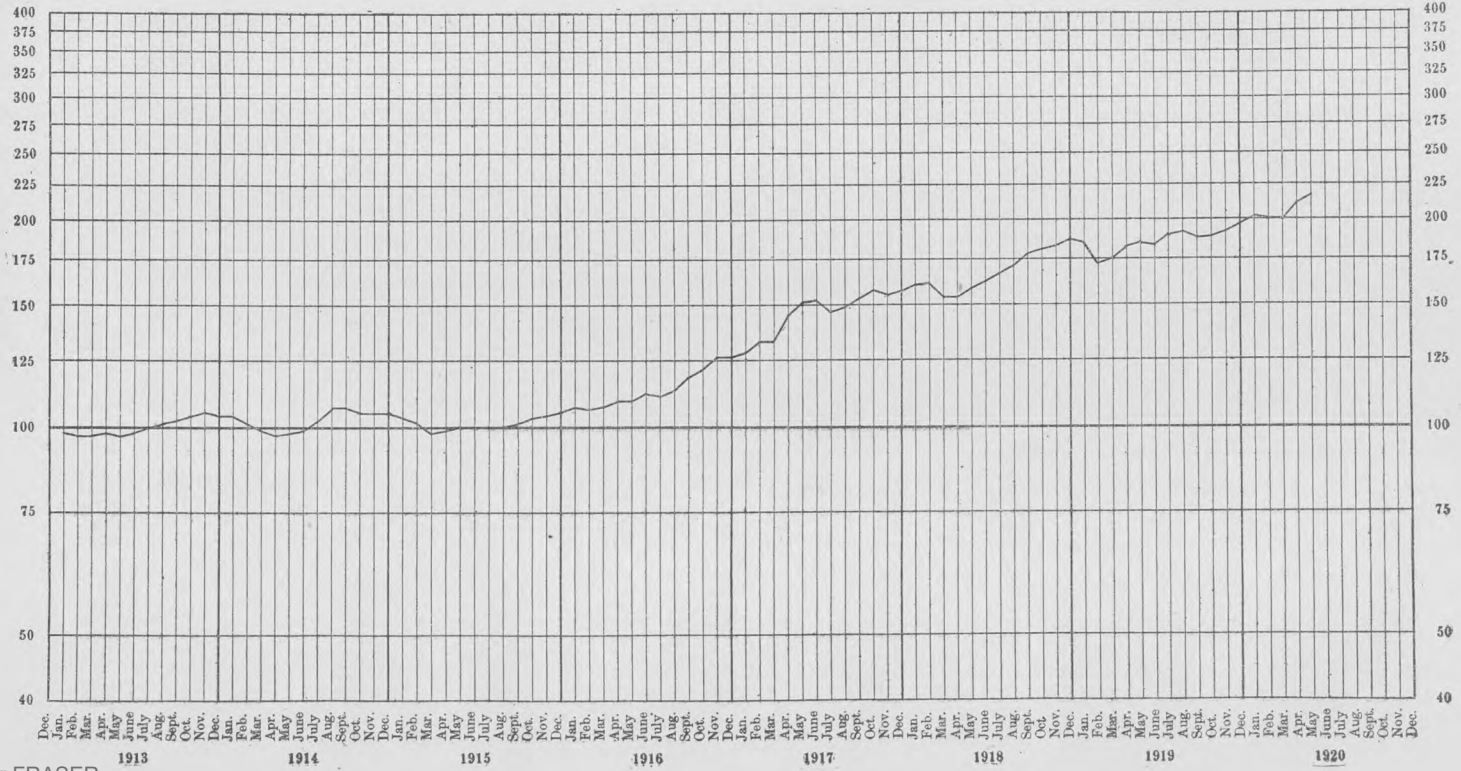
1919: Av. for year..	**164**	**174**	**164**	**169**	**167**	**201**	**205**	**199**	**234**	**193**	**182**	**177**	**193**	**174**	**179**	**218**	**213**	**174**	**224**	**205**	**145**	**129**	**186**
January.....	162	175	165	175	181	193	217	199	211	188	218	184	201	175	175	200	207	159	188	196	117	127	185
February.....	162	174	165	174	181	180	205	193	203	186	147	149	185	174	175	203	200	164	182	195	123	126	172
March.....	165	177	169	178	183	184	203	191	211	193	140	174	183	166	175	206	197	154	171	193	126	129	175
April.....	172	182	175	184	187	197	212	197	223	202	143	186	190	169	175	218	200	154	182	193	129	128	182
May.....	175	187	178	186	181	205	210	203	246	204	154	177	191	167	175	227	207	154	194	193	136	128	185
June.....	170	181	171	176	174	202	212	205	254	200	155	165	192	169	177	227	210	159	224	193	143	129	184
July.....	171	183	169	173	168	220	215	211	266	197	164	164	195	169	179	227	217	168	282	198	155	130	190
August.....	166	177	164	166	160	223	214	212	266	196	174	167	197	174	180	224	220	178	294	202	160	130	192
September.....	161	170	158	158	150	219	206	205	242	194	183	172	195	176	180	221	223	190	253	200	164	130	188
October.....	157	165	155	153	145	211	196	195	228	189	209	186	192	180	180	221	220	199	224	207	159	131	189
November.....	155	162	153	151	143	200	189	188	231	184	235	197	195	184	182	224	220	202	229	227	164	131	192
December.....	154	161	153	152	143	181	186	186	221	184	261	204	196	188	182	233	220	203	253	264	164	127	197
1920:																							
January.....	159	166	159	158	152	178	186	187	215	197	240	194	196	187	195	245	220	208	318	324	165	132	201
February.....	160	167	159	157	152	180	186	188	204	210	199	190	196	188	198	245	217	210	353	342	165	131	200
March.....	161	168	161	157	150	186	186	190	192	215	161	196	194	187	200	242	217	211	400	340	165	135	200
April.....	170	179	169	166	157	206	191	199	191	224	153	199	194	183	200	245	217	214	535	367	165	135	211
May.....	171	179	169	166	155	202	195	206	189	221	153	187	194	182	205	264	247	215	565	462	165	136	216

[1] No hens sold in this month by order of Food Administration.

TREND IN RETAIL COST OF 22 FOOD ARTICLES, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO MAY, 1920,

[Average cost for 1913=100.]



Comparison of Retail Food Costs in 51 Cities.

TABLE 4 shows for 39 cities the percentage of increase or decrease in the retail cost of 22 food articles [6] in May, 1920, compared with the average cost in the year 1913, in May, 1919, and in April, 1920. For 11 other cities comparisons are given for the one-year and one-month periods. These cities have been scheduled by the Bureau at different dates since 1913. For Savannah, Ga., the comparison is given only for the month, as this city was first scheduled by the Bureau in 1920. These percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[7]

TABLE 4.—PERCENTAGE CHANGES IN THE RETAIL COST OF 22 FOOD ARTICLES IN MAY, 1920, COMPARED WITH THE COST IN APRIL, 1920, MAY, 1919, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

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

City.	Percentage increase May, 1920, compared with—			City.	Percentage increase May, 1920, compared with—		
	1913	May, 1919.	April, 1920.		1913	May, 1919.	April, 1920.
Atlanta	117	18	5	Milwaukee	122	17	2
Baltimore	117	10	2	Minneapolis	125	19	2
Birmingham	123	14	4	Mobile	.....	17	4
Boston	106	14	0	Newark	100	13	a 1
Bridgeport	.....	14	2	New Haven	109	15	3
Buffalo	115	13	a 0.4	New Orleans	108	11	1
Butte	.....	21	5	New York	111	15	1
Charleston	116	11	2	Norfolk	.....	11	3
Chicago	120	21	0.4	Omaha	127	19	2
Cincinnati	120	19	3	Peoria	.....	20	3
Cleveland	119	19	a 0.4	Philadelphia	111	14	1
Columbus	.....	13	1	Pittsburgh	109	13	a 1
Dallas	110	16	3	Portland, Me	.....	13	5
Denver	108	12	2	Portland, Oreg	99	17	3
Detroit	128	19	0.2	Providence	115	15	4
Fall River	111	16	4	Richmond	126	14	6
Houston	.....	19	3	Rochester	.....	15	3
Indianapolis	119	20	3	St. Louis	130	19	0.4
Jacksonville	105	15	6	St. Paul	.....	20	4
Kansas City, Mo.	122	19	2	Salt Lake City	102	20	7
Little Rock	110	17	2	San Francisco	100	19	4
Los Angeles	93	17	4	Savannah	.....	.....	3
Louisville	116	13	5	Scranton	114	15	2
Manchester	112	15	4	Seattle	103	15	3
Memphis	119	13	2	Springfield, Ill	.....	22	2
				Washington, D. C	115	11	1

a Decrease.

[6] For list of articles see note 2, p. 67.

[7] The consumption figure used for each article in each city is given in the MONTHLY LABOR REVIEW of November, 1918, pp. 94 and 95.

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

THE following table gives the average retail prices of 10 articles of dry goods on the 15th of May, 1915, 1916, 1917, 1918, 1919, and 1920. The averages given are based on the retail prices of standard brands only.

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1920, IN 51 CITIES.

Article.	Unit.	Atlanta, Ga.						Baltimore, Md.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.073	0.085	0.100	0.200	.....	.....	0.069	0.075	0.098	0.235	0.150	.....
Percale	...do..	.125	.138	.158	.299	0.379	0.548	.123	.125	.190	.316	.315	0.510
Gingham, apron, 27 to 28 inch	...do..	.094	.100	.131	.267	.233	.368	.078	.089	.122	.276	.240	.350
Gingham, dress, 27-inch	...do..	.117	.130	.146	.306	.343	.654	.120	.125	.160	.290	.347	.490
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.525	.686	.150	.150	.....	.....	.531	.668
Muslin, bleached	...do..	.103	.108	.146	.321	.272	.425	.100	.112	.152	.345	.273	.529
Sheeting, bleached, 9-4	...do..	.315	.375	.423	.730	.724	1.208	.303	.340	.430	.798	.793	1.237
Sheets, bleached, 81 by 90	Each.	.803	.938	1.068	1.964	1.849	2.650	.768	.863	1.058	2.077	1.929	3.076
Outing flannel, 27 to 28 inch	Yard.	.111	.118	.142	.306	.293	.465	.110	.122	.157	.300	.346	.488
Flannel, white, wool, 27-inch	...do..	.....	.....	.663	1.000	.925	.....	.....	.....	.....	1.000	1.100	1.213
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.500	4.375	4.987	5.830	.....	.....	3.500	.....	5.900	7.309

Article.	Unit.	Birmingham, Ala.						Boston, Mass.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.063	0.075	0.094	0.210	0.150	0.257	0.068	0.073	0.100	0.197	0.190	0.290
Percale	...do..	.125	.132	.190	.305	.317	.474	.125	.125	.177	.325	.279	.493
Gingham, apron, 27 to 28 inch	...do..	.074	.088	.138	.258	.213	.324	.086	.....	.125	.305	.250	.350
Gingham, dress, 27-inch	...do..	.105	.113	.162	.287	.326	.450	.125	.125	.166	.310	.267	.443
Gingham, dress, 32-inch	...do..	.150	.150	.....	.....	.532	.645	.150	.210	.....	.....	.523	.664
Muslin, bleached	...do..	.097	.110	.146	.250	.270	.410	.121	.129	.157	.309	.291	.529
Sheeting, bleached, 9-4	...do..	.270	.309	.385	.639	.640	1.019	.316	.345	.465	.751	.752	1.085
Sheets, bleached, 81 by 90	Each.	.697	.767	.960	1.594	1.716	2.548	.820	.950	1.242	1.950	1.909	2.732
Outing flannel, 27 to 28 inch	Yard.	.104	.111	.158	.287	.293	.380	.123	.127	.160	.391	.312	.392
Flannel, white, wool, 27-inch	...do..	.....	.....	.740	.690	.....	1.070	.....	.....	.670	.950	1.117	1.370
Blankets, cotton, 66 by 80	Pair.	.....	.....	2.750	3.000	6.560	6.600	.....	.....	3.000	4.000	4.750	6.125

Article.	Unit.	Bridgeport, Conn.						Buffalo, N. Y.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	.....	.....	0.107	0.147	0.150	0.250	0.064	0.079	0.102	0.193	0.178	0.290
Percale	...do..	.....	.....	.170	.250	.295	.523	.125	.137	.190	.316	.308	.553
Gingham, apron, 27 to 28 inch	...do..	.....	.....	.123	.260	.245	.340	.084	.100	.130	.277	.230	.380
Gingham, dress, 27-inch	...do..	.....	.....	.163	.350	.304	.493	.121	.128	.170	.328	.319	.486
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.501	.635	.235	.....	.....	.....	.583	.690
Muslin, bleached	...do..	.....	.....	.158	.290	.275	.491	.105	.118	.164	.328	.289	.483
Sheeting, bleached, 9-4	...do..	.....	.....	.443	.723	.768	1.220	.335	.386	.470	.784	.766	1.193
Sheets, bleached, 81 by 90	Each.	.....	.....	1.140	1.668	1.887	2.858	.865	.994	1.279	1.925	1.860	2.828
Outing flannel, 27 to 28 inch	Yard.	.....	.....	.125	.235	.289	.430	.116	.122	.162	.355	.283	.432
Flannel, white, wool, 27-inch	...do..	.....	.....	.577	1.000	.745	1.000	.....	.....	.782	1.013	.882	1.115
Blankets, cotton, 66 by 80	Pair..	.....	.....	2.750	3.500	.....	.....	.....	.....	2.840	4.413	6.298	5.919

Article.	Unit.	Butte, Mont.						Charleston, S. C.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.068	0.079	0.100	0.150	0.150	0.250	0.065	0.078	0.113	0.220	0.158	0.306
Percale	...do..	.150	.150	.197	.300	.330	.483	.125	.142	.178	.338	.316	.520
Gingham, apron, 27 to 28 inch	...do..	.083	.100	.100	.250	.220	.303	.080	.095	.116	.258	.197	.316
Gingham, dress, 27-inch	...do..	.138	.138	.187	.317	.328	.414	.113	.130	.154	.326	.308	.468
Gingham, dress, 32-inch	...do..	.188	.250	.....	.....	.448	.583	.....	.....	.....	.....	.432	.562
Muslin, bleached	...do..	.129	.129	.158	.333	.259	.467	.100	.113	.142	.303	.244	.490
Sheeting, bleached, 9-4	...do..	.375	.398	.479	.725	.836	1.217	.330	.352	.411	.670	.729	1.180
Sheets, bleached, 81 by 90	Each.	1.069	1.175	1.483	2.000	2.133	3.000	.890	.981	1.197	1.796	1.801	2.756
Outing flannel, 27 to 28 inch	Yard.	.125	.129	.173	.250	.314	.398	.117	.121	.148	.318	.280	.408
Flannel, white, wool, 27-inch	...do..	.....	.....	.850	.....	.920	1.020	.....	.....	.....	.600	.....	.967
Blankets, cotton, 66 by 80	Pair..	.....	.....	2.950	.....	5.800	6.770	.....	.....	.....	4.500	.....	.....

[1] Retail prices of dry goods are published in the April, July, October, and December issues of the MONTHLY LABOR REVIEW.

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1920, IN 51 CITIES—Continued.

Article.	Unit.	Chicago, Ill.						Cincinnati, Ohio.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$ 0.062	$ 0.076	$ 0.100	$ 0.183	$ 0.181	$ 0.248	$ 0.062	$ 0.076	$ 0.098	$ 0.233	$ 0.160	$ 0.277
Percale	...do..	.125	.144	.195	.355	.348	.513	.125	.130	.170	.283	.290	.495
Gingham, apron, 27 to 28 inch	...do..	.076	.091	.125	.250	.222	.317	.076	.091	.125	.253	.230	.317
Gingham, dress, 27-inch	...do..	.121	.140	.186	.343	.330	.457	.113	.129	.165	.290	.275	.458
Gingham dress, 32-inch	...do..	.250	.250	.....	.....	.581	.758	.150	.165	.....	.....	.562	.664
Muslin, bleached	...do..	.098	.113	.151	.307	.294	.432	.105	.116	.137	.269	.256	.400
Sheeting, bleached, 9–4	...do..	.314	.356	.439	.822	.765	1.244	.279	.341	.398	.726	.701	1.020
Sheets, bleached, 81 by 90	Each.	.787	.924	1.218	2.040	1.831	2.912	.683	.846	1.063	1.743	1.830	2.500
Outing flannel, 27 to 28 inches	Yard.	.119	.132	.174	.349	.288	.447	.117	.125	.150	.343	.300	.410
Flannel, white, wool, 27-inch	...do..	.....	.....	.800	1.095	.....	.....	.....	.....	.600	.850	.....	1.000
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.500	4.500	5.304	6.220	.....	.....	.....	.....	.....	.....

Article.	Unit.	Cleveland, Ohio.						Columbus, Ohio.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$ 0.066	$ 0.067	$ 0.090	$ 0.201	$ 0.150	$ 0.235	.....	.....	$ 0.110	$ 0.196	$ 0.176	$ 0.288
Percale	...do..	.125	.125	.168	.320	.339	.559	.....	.....	.185	.336	.343	.646
Gingham, apron, 27 to 28 inch	...do..	.080	.086	.117	.267	.250	.358	.....	.....	.125	.250	.212	.363
Gingham, dress, 27-inch	...do..	.125	.125	.157	.300	.329	.480	.....	.....	.215	.350	.354	.461
Gingham, dress, 32-inch	...do..	.250	.250	.....	.....	.515	.738	.....	.....	.....	.....	.588	.733
Muslin, bleached	...do..	.116	.117	.158	.338	.290	.461	.....	.....	.170	.309	.263	.445
Sheeting, bleached, 9–4	...do..	.336	.374	.486	.776	.758	1.148	.....	.....	.456	.769	.726	1.323
Sheets, bleached, 81 by 90	Each.	.887	1.023	1.190	1.965	1.777	2.917	.....	.....	1.214	1.906	1.877	2.991
Outing flannel, 27 to 28 inch	Yard.	.119	.117	.146	.360	.298	.468	.....	.....	.164	.361	.329	.430
Flannel, white, wool, 27-inch	...do..	.....	.....	.875	1.250	.....	1.000	.....	.....	.850	1.200	.900	1.417
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.750	5.333	6.542	6.636	.....	.....	2.750	5.500	5.980	6.475

Article.	Unit.	Dallas, Tex.						Denver, Colo.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$ 0.056	$ 0.072	$ 0.098	$ 0.198	$ 0.186	$ 0.250	$ 0.070	$ 0.080	$ 0.100	$ 0.229	.....	$ 0.263
Percale	...do..	.150	.125	.159	.330	.330	.455	.144	.150	.200	.450	.360	.630
Gingham, apron, 27 to 28 inch	...do..	.077	.100	.119	.225	.197	.294	.090	.100	.117	.300	.250	.380
Gingham, dress, 27-inch	...do..	.114	.117	.150	.310	.320	.461	.128	.151	.180	.350	.332	.482
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.527	.689	.....	.....	.....	.....	.671	.773
Muslin, bleached	...do..	.104	.106	.140	.282	.254	.418	.117	.118	.167	.361	.287	.520
Sheeting, bleached, 9–4	...do..	.277	.315	.391	.672	.658	1.033	.322	.382	.496	.939	.839	1.312
Sheets, bleached, 81 by 90	Each.	.767	.858	.981	1.628	1.656	2.683	.836	.963	1.461	2.397	2.082	3.361
Outing flannel, 27 to 28 inch	Yard.	.116	.110	.150	.276	.274	.411	.125	.145	.188	.390	.356	.503
Flannel, white, wool, 27-inch	...do..	.....	.....	.500	.....	.....	1.000	.....	.....	1.163	1.500	1.025	1.000
Blankets, cotton, 66 by 90	Pair..	.....	.....	.....	6.500	5.667	6.950	.....	.....	.....	4.875	6.057	7.313

Article.	Unit.	Detroit, Mich.						Fall River, Mass.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$ 0.070	$ 0.077	$ 0.101	$ 0.210	$ 0.164	$ 0.249	$ 0.070	$ 0.070	$ 0.090	$ 0.190	$ 0.170	$ 0.290
Percale	...do..	.125	.129	.193	.326	.337	.520	.125	.125	.163	.363	.308	.453
Gingham, apron, 27 to 28 inch	...do..	.084	.096	.130	.268	.241	.354	.088	.097	.120	.266	.223	.343
Gingham, dress, 27-inch	...do..	.125	.125	.198	.275	.317	.469	.119	.119	.150	.310	.293	.423
Gingham dress, 32-inch	...do..	.150	.....	.....	.....	.489	.729	.....	.....	.....	.....	.476	.645
Muslin, bleached	...do..	.123	.129	.180	.345	.291	.512	.112	.131	.150	.304	.260	.480
Sheeting, bleached, 9–4	...do..	.323	.373	.471	.771	.760	1.117	.335	.400	.440	.727	.795	1.150
Sheets, bleached, 81 by 90	Each.	.900	1.043	1.320	2.083	1.908	2.987	.880	.920	1.183	1.690	1.824	2.583
Outing flannel, 27 to 28 inch	Yard.	.121	.125	.159	.320	.293	.420	.108	.110	.145	.240	.297	.370
Flannel, white, wool, 27-inch	...do..	.....	.....	.913	1.488	.995	.988	.....	.....	.....	.980	.....	.....
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	5.238	6.214	.....	.....	.....	.....	5.980	5.410

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1920, IN 51 CITIES—Continued.

Article.	Unit.	Houston, Tex.						Indianapolis, Ind.					
		Average retail price on May 15—						Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	.....	.....	.....	.....	$0.150	$0.320	$0.058	$0.074	$0.102	$0.200	$0.164	$0.253
Percale	...do..	.....	.....	.....	.....	.348	.518	.125	.133	.183	.314	.313	.483
Gingham, apron, 27 to 28 inch	...do..	.....	.....	.....	.....	.225	.338	.077	.092	.124	.245	.263	.345
Gingham, dress, 27-inch	...do..	.....	.....	.....	.....	.297	.408	.120	.122	.188	.277	.320	.465
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.553	.685	.....	.....	.....	.....	.468	.613
Muslin, bleached	...do..	.....	.....	.....	.....	.259	.429	.108	.114	.147	.302	.292	.461
Sheeting, bleached, 9-4	...do..	.....	.....	.....	.....	.608	1.038	.305	.357	.441	.752	.780	1.207
Sheets, bleached, 81 by 90	Each.	.....	.....	.....	.....	1.577	2.664	.788	.889	1.070	1.688	1.897	2.910
Outing flannel, 27 to 28 inch	Yard.	.....	.....	.....	.....	.265	.353	.118	.121	.149	.326	.293	.439
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	.722	.880	.....	.....	.....	.980	.895	1.187
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	6.433	6.500	.....	.....	3.490	4.827	5.495	6.858
		Jacksonville, Fla.						Kansas City, Mo.					
Calico, 24 to 25 inch	Yard.	$0.070	$0.080	$0.125	$0.193	$0.225	$0.250	$0.071	$0.075	$0.100	$0.235	$0.184	$0.275
Percale	...do..	.125	.138	.200	.320	.445	.643	.142	.150	.178	.350	.373	.545
Gingham, apron, 27 to 28 inch	...do..	.080	.095	.150	.300	.263	.390	.086	.100	.133	.295	.250	.364
Gingham, dress, 27-inch	...do..	.113	.138	.180	.343	.370	.463	.120	.138	.166	.326	.369	.503
Gingham, dress, 32-inch	...do..	.150	.170	.....	.....	.528	.720	.....	.....	.....	.....	.610	.714
Muslin, bleached	...do..	.100	.128	.173	.338	.330	.523	.115	.122	.160	.319	.324	.486
Sheeting, bleached, 9-4	...do..	.325	.360	.460	.740	.850	1.310	.327	.383	.441	.790	.828	1.275
Sheets, bleached, 81 by 90	Each.	.760	.900	1.145	2.003	2.117	3.016	.765	.893	1.150	1.760	1.910	3.063
Outing flannel, 27 to 28 inch	Yard.	.108	.117	.150	.317	.288	.483	.113	.120	.158	.310	.351	.428
Flannel, white, wool, 27-inch	...do..	.....	.....	.650	.750	.650	1.000	.....	.....	.690	1.167	.....	1.250
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.500	6.000	6.500	6.500	.....	.....	2.615	3.750	6.000	6.333
		Little Rock, Ark.						Los Angeles, Calif.					
Calico, 24 to 25 inch	Yard.	$0.065	$0.077	$0.100	$0.229	$0.188	$0.270	$0.070	$0.076	$0.098	.....	$0.186	$0.180
Percale	...do..	.131	.138	.185	.317	.322	.480	.150	.150	.194	.329	.379	.531
Gingham, apron, 27 to 28 inch	...do..	.087	.096	.125	.238	.225	.298	.082	.098	.138	.280	.263	.368
Gingham, dress, 27-inch	...do..	.119	.121	.158	.285	.316	.371	.118	.125	.190	.297	.361	.445
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.432	.636	.138	.180	.....	.....	.600	.737
Muslin, bleached	...do..	.113	.115	.157	.284	.269	.443	.114	.120	.159	.339	.275	.445
Sheeting, bleached, 9-4	...do..	.309	.344	.450	.700	.729	1.181	.316	.368	.455	.740	.755	1.038
Sheets, bleached, 81 by 90	Each.	.760	.828	1.108	1.708	1.819	2.818	.817	.975	1.275	1.944	1.853	2.650
Outing flannel, 27 to 28 inch	Yard.	.114	.121	.150	.291	.281	.394	.117	.115	.161	.350	.360	.433
Flannel, white, wool, 27-inch	...do..	.....	.....	.650	.750	1.000	1.348	.....	.....	1.000	1.250	.900	1.000
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.250	3.750	5.000	5.140	.....	.....	2.750	4.500	6.494	6.388
		Louisville, Ky.						Manchester, N. H.					
Calico, 24 to 25 inch	Yard.	$0.063	$0.075	$0.093	$0.180	$0.190	$0.246	$0.070	$0.080	$0.117	$0.223	$0.215	$0.303
Percale	...do..	.124	.145	.181	.325	.340	.523	.122	.124	.163	.305	.277	.461
Gingham, apron, 27 to 28 inch	...do..	.074	.098	.123	.263	.202	.322	.082	.094	.125	.300	.220	.303
Gingham, dress, 27-inch	...do..	.117	.129	.161	.322	.323	.458	.121	.119	.159	.353	.281	.399
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.564	.766	.....	.....	.....	.....	.408	.617
Muslin, bleached	...do..	.091	.109	.148	.292	.286	.427	.112	.124	.160	.334	.283	.514
Sheeting, bleached, 9-4	...do..	.269	.341	.400	.689	.730	1.042	.328	.366	.469	.777	.699	1.127
Sheets, bleached, 81 by 90	Each.	.755	.937	1.147	1.818	1.967	2.725	.863	1.006	1.293	2.101	1.688	2.651
Outing flannel, 27 to 28 inch	Yard.	.113	.117	.156	.377	.377	.388	.103	.114	.142	.283	.277	.391
Flannel, white, wool, 27-inch	...do..	.....	.....	.670	.....	.....	1.375	.....	.....	.795	1.250	.....	1.095
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	4.500	.....	5.500	.....	.....	2.980	.....	5.426	5.988

AVERAGE RETAIL PRICES OF 19 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1820, IN 51 CITIES—Continued.

Article.	Unit.	Memphis, Tenn. Average retail price on May 15—						Milwaukee, Wis. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$0.061	$0.069	$0.099	$0.235	$0.184	$0.257	$0.060	$0.074	$0.100	$0.180	$0.153	$0.270
Percale	...do..	.125	.135	.200	.333	.356	.580	.125	.130	.180	.316	.344	.597
Gingham, apron 27 to 28 inch	...do..	.085	.100	.133	.280	.230	.283	.080	.098	.124	.258	.226	.350
Gingham, dress, 27-inch	...do..	.117	.120	.167	.333	.288	.463	.123	.123	.177	.280	.330	.457
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.563	.638	.150	.180	.....	.....	.510	.701
Muslin, bleached	...do..	.105	.117	.146	.322	.284	.480	.109	.114	.155	.313	.295	.481
Sheeting, bleached, 9-4	...do..	.319	.355	.466	.786	.738	1.098	.299	.350	.434	.752	.739	1.214
Sheets, bleached, 81 by 90	Each.	.836	.891	1.181	1.981	2.024	2.904	.767	.930	1.367	2.248	1.887	2.954
Outing flannel, 27 to 28 inch	Yard.	.114	.100	.168	.288	.290	.375	.115	.121	.160	.320	.329	.395
Flannel, white, wool, 27-inch	...do..	.....	.....	.750	1.250	.....	1.310	.....	.....	.660	.....	.825	.....
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.250	5.500	5.921	7.067	.....	.....	3.167	5.377	5.904	6.721

Article.	Unit.	Minneapolis, Minn. Average retail price on May 15—						Mobile, Ala. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$0.070	$0.078	$0.107	$0.183	$0.166	$0.261	.....	.....	.....	.....	$0.154	$0.255
Percale	...do..	.131	.145	.187	.313	.366	.465	.....	.....	.....	.....	.311	.517
Gingham, apron, 27 to 28 inch	...do..	.092	.096	.129	.220	.237	.326	.....	.....	.....	.....	.193	.326
Gingham, dress, 27-inch	...do..	.131	.133	.194	.306	.329	.454	.....	.....	.....	.....	.304	.429
Gingham, dress, 32-inch	...do..	.250	.250	.....	.....	.581	.832	.....	.....	.....	.....	.477	.624
Muslin, bleached	...do..	.129	.130	.149	.313	.278	.465	.....	.....	.....	.....	.258	.436
Sheeting, bleached, 9-4	...do..	.321	.354	.427	.750	.698	1.133	.....	.....	.....	.....	.595	1.025
Sheets, bleached, 81 by 90	Each.	.876	.970	1.142	1.998	1.896	2.650	.....	.....	.....	.....	1.620	2.506
Outing flannel, 27 to 28 inch	Yard.	.120	.126	.155	.328	.313	.402	.....	.....	.....	.....	.276	.359
Flannel, white, wool, 27-inch	...do..	.....	.....	.865	.977	1.000	.....	.....	.....	.....	.....	.650	.867
Blankets, cotton, 66 by 80	Pair..	.....	.....	2.817	4.250	5.732	6.363	.....	.....	.....	.....	.....	6.296

Article.	Unit.	Newark, N. J. Average retail price on May 15—						New Haven, Conn. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$0.065	$0.072	$0.095	$0.200	$0.177	$0.277	$0.065	$0.075	$0.097	$0.190	.....	$0.250
Percale	...do..	.125	.125	.183	.350	.330	.564	.125	.125	.177	.290	$0.321	.502
Gingham, apron, 27 to 28 inch	...do..	.080	.090	.117	.260	.203	.317	.080	.089	.125	.290	.194	.336
Gingham, dress, 27-inch	...do..	.125	.125	.179	.328	.290	.483	.125	.125	.167	.296	.257	.434
Gingham, dress, 32-inch	...do..	.183	.183	.....	.....	.533	.718	.125	.170	.....	.....	.505	.679
Muslin, bleached	...do..	.100	.111	.149	.293	.317	.475	.101	.115	.150	.331	.269	.470
Sheeting, bleached, 9-4	...do..	.340	.390	.450	.776	.771	1.157	.305	.360	.417	.773	.670	1.094
Sheets, bleached, 81 by 90	Each.	.880	.990	1.150	1.877	1.916	2.870	.820	.971	1.120	1.878	1.696	2.575
Outing flannel, 27 to 28 inch	Yard.	.120	.121	.154	.354	.272	.480	.107	.119	.151	.295	.243	.383
Flannel, white, wool, 27-inch	...do..	.....	.....	.935	1.367	1.250	1.320	.....	.....	.800	1.238	.883	.....
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.250	4.240	4.958	5.370	.....	.....	3.000	3.500	4.796	5.620

Article.	Unit.	New Orleans, La. Average retail price on May 15—						New York, N. Y. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	$0.053	$0.073	$0.100	$0.200	$0.150	$0.250	$0.070	$0.085	$0.109	$0.265	$0.205	$0.260
Percale	...do..	.102	.120	.150	.400	.350	.435	.126	.138	.180	.357	.343	.541
Gingham, apron, 27 to 28 inch	...do..	.080	.100	.117	.288	.250	.290	.079	.091	.117	.281	.212	.371
Gingham, dress, 27-inch	...do..	.107	.108	.150	.313	.287	.450	.115	.121	.168	.315	.335	.453
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.508	.732	.138	.148	.....	.....	.616	.776
Muslin, bleached	...do..	.095	.100	.125	.267	.227	.393	.103	.117	.152	.343	.288	.459
Sheeting, bleached, 9-4	...do..	.317	.323	.....	.660	.620	.975	.320	.374	.428	.809	.757	1.183
Sheets, bleached, 81 by 90	Each.	.740	.848	.900	1.667	1.788	2.383	.803	.930	1.112	2.055	1.878	2.900
Outing flannel, 27 to 28 inch	Yard.	.094	.100	.....	.300	.300	.350	.106	.108	.170	.366	.307	.417
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	.500	1.250	.....	.....	.800	1.046	1.029	.953
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	5.980	.....	.....	.....	3.125	5.250	5.524	6.288

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1920, IN 51 CITIES—Continued.

Article.	Unit.	Norfolk, Va. Average retail price on May 15—						Omaha, Nebr. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard.	.....	.....	.....	$ 0.159	$ 0.250	$ 0.250	$ 0.057	$ 0.073	$ 0.095	$ 0.209	$ 0.162	$ 0.232
Percale	...do..	.....	.....	.....	.335	.330	.536	.126	.134	.175	.328	.348	.521
Gingham, apron, 27 to 28 inch	...do..	.....	.....	.....	.290	.250	.350	.074	.084	.113	.250	.232	.334
Gingham, dress, 27-inch	...do..	.....	.....	.....	.317	.355	.406	.121	.125	.150	.294	.337	.489
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.536	.694	.....	.....	.....	.....	.596	.704
Muslin, bleached	...do..	.....	.....	.....	.301	.277	.503	.105	.116	.140	.292	.289	.439
Sheeting, bleached, 9-4	...do..	.....	.....	.....	.718	.792	1.136	.295	.341	.406	.732	.726	1.160
Sheets, bleached, 81 by 90	Each.	.....	.....	.....	1.752	1.786	2.632	.799	.911	1.100	1.956	2.013	2.795
Outing flannel, 27 to 28 inch	Yard.	.....	.....	.....	.288	.310	.453	.112	.122	.144	.330	.328	.419
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	1.125	1.125	.....	.....	.875	1.123	1.150	1.250
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	5.990	5.487	.....	.....	3.000	4.345	6.381	6.904
		Peoria, Ill.						Philadelphia, Pa.					
Calico, 24 to 25 inch	Yard.	.....	.....	.....	$ 0.138	$ 0.180	$ 0.190	$ 0.069	$ 0.084	$ 0.125	$ 0.225	$ 0.207	$ 0.256
Percale	...do..	.....	.....	.....	.315	.336	.....	.125	.129	.197	.338	.304	.537
Gingham, apron, 27 to 28 inch	...do..	.....	.....	.....	.230	.230	.360	.083	.090	.119	.290	.203	.326
Gingham, dress, 27-inch	...do..	.....	.....	.....	.287	.328	.490	.122	.123	.162	.330	.320	.449
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.581	.590	.250	.250	.....	.....	.537	.691
Muslin, bleached	...do..	.....	.....	.....	.279	.277	.474	.104	.121	.157	.303	.288	.479
Sheeting, bleached, 9-4	...do..	.....	.....	.....	.705	.824	1.288	.320	.367	.454	.715	.754	1.088
Sheets, bleached, 81 by 90	Each.	.....	.....	.....	1.773	2.148	3.258	.797	.908	1.206	1.780	1.813	2.663
Outing flannel, 27 to 28 inch	Yard.	.....	.....	.....	.316	.353	.382	.107	.125	.149	.330	.285	.440
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	.....	.980	.....	.....	.667	.993	1.070	1.380
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	5.700	.....	.....	.....	2.950	5.000	5.472	5.333
		Pittsburgh, Pa.						Portland, Me.					
Calico, 24 to 25 inch	Yard.	$ 0.069	$ 0.072	$ 0.100	$ 0.204	$ 0.167	$ 0.266	.....	.....	.....	$ 0.250	.....	.....
Percale	...do..	.125	.130	.187	.320	.310	.517	.....	.....	.....	.323	0.356	0.438
Gingham, apron, 27 to 28 inch	...do..	.078	.085	.113	.253	.192	.328	.....	.....	.....	.310	.250	.290
Gingham, dress, 27-inch	...do..	.125	.125	.165	.301	.309	.454	.....	.....	.....	.315	.330	.400
Gingham, dress, 32-inch	...do..	.173	.150	.....	.....	.541	.727	.....	.....	.....	.....	.507	.633
Muslin, bleached	...do..	.103	.114	.159	.278	.267	.445	.....	.....	.....	.298	.271	.426
Sheeting, bleached, 9-4	...do..	.322	.356	.447	.721	.727	1.168	.....	.....	.....	.688	.689	.999
Sheets, bleached, 81 by 90	Each.	.776	.918	1.147	1.821	1.707	2.824	.....	.....	.....	1.780	1.813	2.467
Outing flannel, 27 to 28 inch	Yard.	.108	.118	.153	.278	.302	.395	.....	.....	.....	.238	.310	.424
Flannel, white, wool, 27-inch	...do..	.....	.....	.640	1.063	.785	1.133	.....	.....	.....	.....	.....	1.398
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.000	4.850	5.750	5.675	.....	.....	.....	.....	5.417	5.740
		Portland, Oreg.						Providence, R. I.					
Calico, 24 to 25 inch	Yard.	$ 0.064	$ 0.076	$ 0.094	$ 0.179	$ 0.148	$ 0.235	$ 0.069	$ 0.078	$ 0.098	$ 0.196	$ 0.190	$ 0.277
Percale	...do..	.150	.150	.175	.300	.358	.290	.124	.125	.176	.300	.300	.482
Gingham, apron, 27 to 28 inch	...do..	.080	.090	.108	.250	.200	.287	.089	.100	.133	.278	.214	.363
Gingham, dress, 27-inch	...do..	.119	.125	.147	.263	.338	.421	.121	.125	.160	.282	.316	.437
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.693	.704	.150	.....	.....	.....	.495	.654
Muslin, bleached	...do..	.108	.115	.143	.290	.277	.454	.105	.123	.152	.313	.257	.489
Sheeting, bleached, 9-4	...do..	.328	.364	.450	.732	.700	1.071	.311	.357	.418	.727	.676	1.102
Sheets, bleached, 81 by 90	Each.	.950	1.000	1.213	1.993	1.889	2.756	.795	.908	1.105	1.853	1.734	2.930
Outing flannel, 27 to 28 inch	Yard.	.115	.113	.167	.360	.335	.392	.100	.118	.....	.....	.255	.....
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	1.100	1.323	.....	.....	.795	1.013	.915	.....
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	5.690	6.639	.....	.....	3.243	4.410	6.058	6.276
		Richmond, Va.						Rochester, N. Y.					
Calico, 24 to 25 inch	Yard.	$ 0.064	$ 0.079	$ 0.103	$ 0.203	$ 0.164	$ 0.248	.....	$ 0.067	$ 0.086	$ 0.185	$ 0.128	$ 0.205
Percale	...do..	.125	.125	.171	.297	.318	.485	.....	.125	.158	.325	.277	.450
Gingham, apron, 27 to 28 inch	...do..	.080	.089	.122	.263	.206	.320	.....	.080	.115	.227	.194	.300
Gingham, dress, 27-inch	...do..	.120	.123	.157	.305	.290	.391	.....	.125	.191	.246	.276	.424
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.436	.639	.....	.210	.....	.....	.561	.652
Muslin, bleached	...do..	.107	.131	.169	.320	.273	.483	.....	.103	.144	.269	.246	.436
Sheeting, bleached, 9-4	...do..	.307	.363	.446	.854	.742	1.077	.....	.337	.424	.688	.712	1.177
Sheets, bleached, 81 by 90	Each.	.789	.928	1.107	2.000	1.849	2.601	.....	.961	1.167	1.830	1.783	2.820
Outing flannel, 27 to 28 inch	Yard.	.115	.123	.148	.290	.308	.399	.....	.109	.156	.284	.282	.370
Flannel, white, wool, 27-inch	...do..	.....	.....	.613	.935	.852	1.094	.....	.....	.....	.....	.....	1.375
Blankets, cotton, 66 by 80	Pair..	.....	.....	2.987	.....	5.678	5.892	.....	.....	4.240	5.865	5.500	6.990

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15, 1915, 1916, 1917, 1918, 1919, AND 1920, IN 51 CITIES—Concluded.

Article.	Unit.	St. Louis, Mo. Average retail price on May 15—						St. Paul, Minn. Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920	1915	1916	1917	1918	1919	1920
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.063	0.075	0.103	0.192	0.195	0.257	0.062	0.073	0.087	0.202	0.156	0.277
Percale	...do..	.125	.150	.191	.350	.320	.490	.131	.150	.175	.330	.296	.483
Gingham, apron, 27 to 28 inch	...do..	.075	.090	.125	.250	.220	.300	.074	.100	.115	.255	.220	.314
Gingham, dress, 27-inch	...do..	.118	.125	.170	.313	.289	.455	.119	.125	.147	.314	.309	.459
Gingham, dress, 32-inch	...do..	.125	.125	.....	*	.594	.741	.150	.....	.....	.....	.484	.666
Muslin, bleached	...do..	.094	.107	.142	.298	.249	.445	.115	.118	.169	.353	.277	.521
Sheeting, bleached, 9-4	...do..	.285	.339	.554	.725	.689	1.075	.292	.355	.386	.788	.733	1.115
Sheets, bleached, 81 by 90	Each.	.700	.871	1.090	1.871	1.900	2.563	.843	.984	1.078	2.147	1.861	2.638
Outing flannel, 27 to 28 inch	Yard.	.116	.119	.156	.333	.351	.410	.115	.123	.142	.316	.278	.398
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	1.100	.933	.....	.....	.....	.785	1.115	.980	.980
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	6.500	6.161	.....	.....	.....	.....	5.698	6.554

Article.	Unit.	Salt Lake City, Utah.						San Francisco, Calif					
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.068	0.083	0.110	0.183	0.158	0.250	0.067	0.079	.....	.....	.....	.....
Percale	...do..	.146	.150	.200	.335	.351	.545	.150	.150	0.208	0.392	0.417	0.567
Gingham, apron, 27 to 28 inch	...do..	.080	.110	.125	.250	.245	.312	.086	.100	.125	.283	.288	.350
Gingham, dress, 27-inch	...do..	.125	.143	.173	.331	.329	.448	.116	.121	.163	.306	.333	.414
Gingham, dress, 32-inch	...do..	.....	.290	.....	.....	.635	.708	.....	.....	.....	.....	.500	.642
Muslin, bleached	...do..	.110	.123	.149	.304	.294	.468	.113	.122	.161	.328	.286	.430
Sheeting, bleached, 9-4	...do..	.333	.399	.442	.757	.762	1.103	.321	.375	.493	.838	.771	1.207
Sheets, bleached, 81 by 90	Each.	.960	1.128	1.363	2.233	1.971	3.003	.900	.955	1.270	2.090	1.905	3.050
Outing flannel, 27 to 28 inch	Yard.	.125	.132	.168	.311	.319	.438	.114	.123	.162	.356	.359	.444
Flannel, white, wool, 27-inch	...do..	.....	.....	.633	1.050	1.258	1.450	.....	.....	.....	1.250	.750	1.500
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	6.980	6.912	.....	.....	.....	.....	5.943	6.800

Article.	Unit.	Savannah, Ga.						Scranton, Pa.					
							$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	.....	.....	.....	.....	.....	.....	0.060	0.068	0.088	0.230	0.187	0.263
Percale	...do..	.....	.....	.....	.....	.....	0.490	.123	.132	.190	.350	.285	.450
Gingham, apron, 27 to 28 inch	...do..	.....	.....	.....	.....	.....	.366	.077	.083	.110	.268	.220	.320
Gingham, dress, 27-inch	...do..	.....	.....	.....	.....	.....	.436	.112	.121	.151	.301	.291	.441
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.....	.613	.....	.....	.....	.....	.493	.608
Muslin, bleached	...do..	.....	.....	.....	.....	.....	.459	.097	.102	.145	.324	.282	.471
Sheeting, bleached, 9-4	...do..	.....	.....	.....	.....	.....	1.116	.301	.350	.422	.711	.752	1.101
Sheets, bleached, 81 by 90	Each.	.....	.....	.....	.....	.....	2.783	.798	.864	1.070	1.988	1.902	2.619
Outing flannel, 27 to 28 inch	Yard.	.....	.....	.....	.....	.....	.430	.110	.107	.150	.308	.312	.451
Flannel, white, wool, 27-inch	...do..	.....	.....	.....	.....	.....	1.000	.....	.....	.590	.750	.980	1.125
Blankets, cotton, 66 by 80	Pair..	.....	.....	.....	.....	.....	6.500	.....	.....	2.740	5.000	6.288	5.863

Article.	Unit.	Seattle, Wash.						Springfield, Ill.					
		$	$	$	$	$	$	$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.070	0.077	0.103	0.219	0.180	0.250	0.061	0.073	0.100	0.207	0.160	0.254
Percale	...do..	.150	.150	.200	.342	.357	.540	.125	.150	.....	.299	.335	.441
Gingham, apron, 27 to 28 inch	...do..	.082	.091	.125	.250	.240	.350	.083	.100	.125	.256	.240	.330
Gingham, dress, 27-inch	...do..	.121	.123	.164	.338	.328	.419	.120	.125	.146	.319	.320	.414
Gingham, dress, 32-inch	...do..	.....	.....	.....	.....	.560	.700	.....	.....	.....	.....	.499	.594
Muslin, bleached	...do..	.100	.121	.170	.353	.253	.500	.106	.114	.146	.314	.262	.397
Sheeting, bleached, 9-4	...do..	.337	.375	.526	.850	.767	1.177	.310	.334	.448	.719	.737	1.028
Sheets, bleached, 81 by 90	Each.	.900	1.000	1.313	2.167	1.929	3.118	.829	.925	1.225	1.664	1.967	2.730
Outing flannel, 27 to 28 inch	Yard.	.117	.123	.170	.335	.338	.441	.117	.113	.142	.286	.284	.392
Flannel, white, wool, 27-inch	...do..	.....	.....	.713	1.200	.875	1.467	.....	.....	.600	.....	.875	.850
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.450	5.750	5.675	6.156	.....	.....	.....	.....	4.650	5.175

Article.	Unit.	Washington, D. C.					
		$	$	$	$	$	$
Calico, 24 to 25 inch	Yard.	0.071	0.073	0.102	0.263	.....	0.370
Percale	...do..	.125	.138	.178	.350	0.338	.601
Gingham, apron, 27 to 28 inch	...do..	.076	.088	.134	.300	.243	.350
Gingham, dress, 27-inch	...do..	.125	.125	.194	.410	.381	.538
Gingham dress, 32-inch	...do..	.150	.142	.....	.....	.534	.705
Muslin, bleached	...do..	.112	.121	.154	.350	.278	.472
Sheeting, bleached, 9-4	...do..	.333	.365	.461	.831	.740	1.258
Sheets, bleached, 81 by 90	Each.	.815	.909	1.138	2.081	1.876	2.909
Outing flannel, 27 to 28 inch	Yard.	.119	.121	.168	.400	.304	.425
Flannel, white, wool, 27-inch	...do..	.....	.....	.700	.900	.....	1.250
Blankets, cotton, 66 by 80	Pair..	.....	.....	3.000	4.500	7.500	6.527

The following table shows for the United States average retail prices of specified articles of dry goods on May 15 of each year, 1915 to 1920.

AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF DRY GOODS MAY 15 OF EACH YEAR, 1915 TO 1920.

Article.	Unit.	Average retail price on May 15—					
		1915	1916	1917	1918	1919	1920
Calico, 24 to 25 inch	Yard	$0.065	$0.075	$0.100	$0.202	$0.175	$0.260
Percale	do	.129	.135	.181	.326	356	.515
Gingham, apron, 27 to 28 inch	do	.081	.094	.123	.264	.227	.335
Gingham, dress, 27-inch	do	.120	.126	.169	.310	.319	.448
Gingham, dress, 32-inch	do	.175	.192			.539	.687
Muslin, bleached	do	.108	.117	.154	.312	.277	.465
Sheeting, bleached, 9-4	do	.314	.359	.444	.754	.741	1.147
Sheets, bleached, 81 by 90	Each	.819	.940	1.179	1.916	1.869	2.806
Outing flannel, 27 to 28 inch	Yard	.114	.120	.157	.324	.307	.417
Flannel, white, wool, 27-inch	do	(1)	(1)	.754	1.099	.945	1.159
Blankets, cotton, 66 by 80	Pair	(1)	(1)	3.128	4.726	5.821	6.291

[1] Prices not published until May 15, 1917.

Index Numbers of Wholesale Prices in the United States.

THE general level of wholesale prices in May was slightly above the level of the preceding month, according to information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. Measured by changes in the Bureau's weighted index number, in which each commodity has an influence commensurate with its importance in the country's markets, the increase was a little over 2½ per cent.

The group of fuel and lighting materials again furnished the most notable example of price increase, due mainly to the recent sharp advance in both hard and soft coal and coke. The index number for this group rose from 213 in April to 235 in May, an increase of over 10 per cent. Food followed next with an increase of 6¼ per cent, due to continued increases in both raw and granulated sugar, flour, meal, fruits, and potatoes. In the groups of chemicals and drugs, house-furnishing goods, and miscellaneous commodities somewhat smaller increases were recorded. On the other hand, substantial decreases from April to May were reported for certain articles belonging to the groups of farm products, cloths and clothing, and metals and metal products. Among the important articles averaging less in price were cattle, hogs, sheep, poultry, calfskins, leather, raw silk, worsted yarn, pig lead, silver, pig tin, and spelter.

The following table shows some of the more important price changes occurring between April and May, as measured by average prices in each month.

IMPORTANT ARTICLES INCREASING OR DECREASING IN AVERAGE PRICE IN MAY, AS COMPARED WITH APRIL, 1920, BY GROUPS OF COMMODITIES.

Increases.

Commodity.	Per cent.
Farm products.	
Corn, Chicago	17.1
Oats, Chicago	9.2
Rye, Chicago	8.3
Wheat:	
No. 1, northern spring, Chicago	6.8
No. 2, red winter, Chicago	7.3
No. 2, hard winter, Kansas City	5.0
No. 1, northern spring, Minneapolis	2.3
Hay, alfalfa, Kansas City	3.8
Hay, timothy, Chicago	8.4
Hops:	
New York	3.1
Pacifics, Portland, Oreg.	6.1
Food, etc.	
Beans, New York	3.3
Cheese, New York	3.9
Eggs, Cincinnati	2.2
Eggs, Philadelphia	3.8
Rye flour, Minneapolis	6.6
Wheat flour:	
Kansas City	7.4
Minneapolis	5.3
St. Louis	6.1
Toledo	8.1
Fruit:	
Bananas, New York	20.5
Lemons, Chicago	8.9
Food, etc.—Concluded.	
Fruit:	
Oranges, Chicago	7.6
Prunes, New York	4.5
Raisins, New York	3.6
Lard, New York	4.0
Meal:	
Terre Haute	11.8
Philadelphia	12.9
Ham, Chicago	7.3
Sugar, raw, New York	18.6
Sugar, granulated, New York	17.1
Potatoes, Chicago	4.2
Cloths and clothing.	
Carpets, New York	11.7
Linen shoe thread, New York	4.6
Fuel and lighting.	
Denatured alcohol, New York	7.9
Anthracite coal, New York	5.3
Bituminous coal, Pittsburgh	30.7
Coke, Connellsville	14.3
Gasoline, New York	3.2
Lumber and building materials.	
Portland cement, New York	21.5
Metals and metal products.	
Pig iron:	
Basic, valley furnace	1.8
Foundry, No. 2, Pittsburgh	2.8
Foundry, No. 2, Cincinnati	3.4
Cast-iron pipe, New York	2.7
Chemicals and drugs.	
Acetic acid, New York	3.3
Muriatic acid, New York	19.7
Refined glycerin, New York	10.2
Opium, New York	9.1
Soda ash, New York	8.1
House-furnishing goods.	
Kitchen chairs, Chicago	20.0
Glass nappies, factory	10.0
Glass pitchers, factory	10.3
Knives and forks, factory	3.6
Carvers, factory	10.3
Miscellaneous.	
Bran, Minneapolis	5.6
Cottonseed oil, New York	5.7
Wood pulp, New York	21.0
Mill feed, middlings, Minneapolis	6.1

Decreases.

Commodity.	Per cent.
Farm products.	
Cotton:	
New Orleans	2.6
New York	2.5
Flaxseed, Minneapolis	2.5
Calfskins, Chicago	14.3
Hides, Chicago	2.1
Cattle, Chicago	8.6
Hogs, Chicago	6.0
Sheep:	
Ewes, Chicago	12.1
Lambs, Chicago	8.6
Wethers, Chicago	13.1
Poultry:	
Chicago	7.4
New York	22.9
Tobacco, Louisville	4.3
Food, etc.	
Butter:	
Boston	11.1
Chicago	10.6
Cincinnati	9.5
Food, etc.—Concluded.	
Butter:	
New Orleans	6.0
New York	14.3
Philadelphia	12.7
St. Louis	9.7
San Francisco	6.2
Fresh beef:	
Chicago	6.7
New York	8.1
Lamb, Chicago	4.4
Mutton, New York	22.4
Veal, New York	11.5
Oleo oil, Chicago	12.5
Cloths and clothing.	
Print cloth, Boston	3.3
Leather:	
Chrome calf, Boston	6.0
Glazed kid, Boston	3.6
Side, black, Boston	6.9
Raw silk, New York	31.9
Worsted yarn, Boston	9.1
Metals and metal products.	
Pig lead, New York	4.5
Silver, bar, New York	14.7
Pig tin, New York	10.8
Spelter, New York	6.1
Lumber and building materials.	
Linseed oil, New York	7.5
Putty, New York	12.5
Cedar shingles, mill	6.0
Chemicals and drugs.	
Caustic soda, New York	3.3
Nitrate of soda, New York	1.3
Miscellaneous.	
Linseed meal, Minneapolis	4.0
Tankage, Chicago	7.9

Measured by changes in the index numbers for the 12 months from May, 1919, to May, 1920, farm products increased 1.7 per cent in price, food 34 per cent, and cloths and clothing 52.2 per cent. During the same time fuel and lighting increased 40.7 per cent, metals and metal products 27 per cent, and lumber and building materials 107.9 per cent in price. Chemicals and drugs increased

20.1 per cent, house-furnishing goods 56.2 per cent, and miscellaneous commodities 15.5 per cent in average price. All commodities, considered in the aggregate, increased 31.4 per cent in price.

INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED YEARS AND MONTHS, 1913 TO MAY, 1920, 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	100	100	100	100	100	100	100	100	100	100
January	97	99	100	103	107	100	101	100	100	100
April	97	96	100	98	102	101	101	100	98	98
July	101	102	100	99	98	101	99	100	101	100
October	103	102	100	100	99	98	100	100	100	101
1914	103	103	98	96	87	97	101	99	99	100
January	101	102	98	99	92	98	100	99	99	100
April	103	95	99	98	91	99	100	99	101	98
July	104	104	99	95	85	97	99	99	97	100
October	103	107	97	93	83	96	105	99	96	99
1915	105	104	100	93	97	94	114	99	99	101
January	102	106	96	93	83	94	103	99	100	99
April	107	105	99	89	91	94	102	99	99	100
July	108	104	99	90	102	93	108	99	98	101
October	105	103	103	96	100	93	124	99	99	101
1916	122	126	128	119	148	101	159	115	120	124
January	108	113	110	105	126	99	150	105	107	110
April	114	117	119	108	147	101	172	108	110	117
July	118	121	126	108	145	99	156	121	120	119
October	136	140	138	133	151	101	150	124	132	134
1917	189	176	181	175	208	124	198	144	155	176
January	148	150	161	176	183	106	159	132	138	151
April	181	182	169	184	208	114	170	139	149	172
July	199	181	187	192	257	132	198	152	153	186
October	208	183	193	146	182	134	252	152	163	181
1918	220	189	239	163	181	151	221	196	193	196
January	207	187	211	157	174	136	232	161	178	185
February	208	186	216	157	176	138	232	161	181	186
March	212	177	223	158	176	144	232	165	184	187
April	217	178	232	157	177	146	229	172	191	190
May	214	177	237	160	178	148	223	173	194	190
June	217	179	245	159	178	150	219	198	196	193
July	224	184	249	166	184	154	216	199	190	198
August	230	191	252	166	185	157	222	221	191	202
September	237	199	255	167	184	159	220	226	194	207
October	224	201	257	167	187	158	218	226	196	204
November	221	206	256	171	188	164	215	226	203	206
December	222	210	250	171	184	164	195	227	204	206
1919	234	210	261	173	161	192	179	236	217	212
January	222	207	234	170	172	161	191	218	212	203
February	218	196	223	169	168	163	185	218	208	197
March	228	203	216	168	162	165	183	218	217	201
April	235	211	217	167	152	162	178	217	216	203
May	240	214	228	167	152	164	179	217	213	207
June	231	204	258	170	154	175	174	233	212	207
July	246	216	282	171	158	186	171	245	221	218
August	243	227	304	175	165	208	172	259	225	226
September	226	211	306	181	160	227	173	262	217	220
October	230	211	313	181	161	231	174	264	220	223
November	240	219	325	179	164	236	176	299	220	230
December	244	234	335	181	169	253	179	303	220	238
1920:										
January	246	253	350	184	177	268	189	324	227	248
February	237	244	356	187	189	300	197	329	227	249
March	239	246	356	192	192	324	205	329	230	253
April	246	270	353	213	195	341	212	331	238	265
May[1]	244	287	347	235	193	341	215	339	246	272

[1] Preliminary.

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 Belgium, Denmark, Great Britain, Norway, Sweden, and the city of Rome, Italy, the index numbers are reproduced as published in the original sources. With two exceptions all these are shown on the July, 1914, base in the source from which the information is taken. The index numbers for Belgium are computed on April, 1914, as the base period, while those for Rome are based on the first half of 1914. The index numbers here shown for the remaining countries have been obtained by dividing the index for each month specified in the table by the index for July, 1914, or the nearest period thereto, as published. As shown in the table, the number of articles included in the index numbers for the different countries differs widely. These results should not, therefore, be considered as closely comparable one with another. In one or two instances the figures here shown are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities included at successive dates.

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 (variable). Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Belgium: 54 articles (variable); Brussels. Not weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	Denmark: Family food budget; 5 persons. Weighted.	France: Family budget, 13 articles.		Great Britain: 21 foodstuffs; 600 towns. Weighted.
						Cities over 10,000 population (except Paris). Weighted.	Paris only. Weighted.	
1914.								
July	100	100	[1] 100	100	100	[2] 100	100	100
October	103	99	.....	108	.....	.....	.....	112
1915.								
January	101	107	.....	107	.....	[2] 110	120	118
April	97	113	.....	105	.....	.....	114	124
July	98	131	.....	105	128	[2] 123	120	132½
October	101	133	.....	105	.....	.....	118	140
1916.								
January	105	129	.....	112	.....	[2] 133	134	145
April	107	131	.....	112	.....	[2] 137	132	149
July	109	130	.....	114	146	[2] 141	129	161
October	119	125	.....	125	.....	[2] 146	135	168
1917.								
January	125	125	.....	138	.....	[2] 154	139	187
February	130	126	.....	141	158	.....	.....	189
March	130	126	.....	144	.....	.....	.....	192
April	142	127	.....	145	.....	[2] 171	147	194
May	148	127	.....	159	.....	.....	.....	198
June	149	127	.....	160	.....	.....	.....	202
July	143	126	.....	157	166	[2] 184	183	204
August	146	129	.....	157	.....	.....	.....	202
September	150	129	.....	157	.....	.....	.....	206
October	154	129	.....	159	.....	[2] 200	184	197
November	152	129	.....	163	.....	.....	.....	206
December	154	128	.....	165	.....	.....	.....	205
1918.								
January	157	129	.....	167	.....	[2] 211	191	206
February	158	130	.....	169	173	.....	.....	208
March	151	131	.....	170	.....	.....	.....	207
April	151	131	.....	169	.....	[2] 232	218	206
May	155	132	.....	171	.....	.....	.....	207
June	159	132	.....	172	.....	.....	.....	208
July	164	131	.....	175	187	[2] 244	206	210
August	168	128	.....	181	.....	.....	.....	218
September	175	128	.....	179	.....	.....	.....	216
October	177	131	.....	182	.....	[2] 260	238	229
November	179	133	.....	182	.....	.....	.....	233
December	183	134	.....	184	.....	.....	.....	229
1919.								
January	181	140	639	186	186	[2] 277	248	230
February	169	141	534	181	.....	.....	227	230
March	172	143	424	176	.....	.....	248	220
April	178	145	374	180	.....	[2] 293	257	213
May	181	146	351	182	.....	.....	268	207
June	180	147	344	185	.....	.....	264	204
July	186	147	354	186	212	[2] 288	261	209
August	188	148	348	195	.....	.....	238	217
September	184	148	342	193	.....	.....	259	216
October	184	156	337	192	.....	[2] 301	283	222
November	188	158	341	192	.....	.....	280	231
December	193	158	359	198	.....	.....	285	234
1920.								
January	197	160	410	206	251	[2] 320	290	236
February	196	163	445	212	.....	.....	297	235
March	196	163	473	215	.....	.....	339	233

[1] April, 1914.

[2] Quarter beginning that month.

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

Year and month.	Italy.		Netherlands: 27 foodstuffs; Amsterdam. Not weighted.	New Zealand; 59 foodstuffs; 25 towns. Weighted	Norway: Family food budget. Weighted.	Spain: 12 foodstuffs; provincial capitals. Not weighted.	Sweden: 21 articles; 44 towns. Weighted.	Switzerland: 9 groups of foodstuffs; Not weighted.
	7 foodstuffs; 40 cities (variable). Not weighted.	Rome: Family food budget; 5 persons. Weighted.						
1914.								
July	100	[3] 100	[4] 100	100	100	[5] 100	100	[6] 100
October	104	.....	.....	102	.....	.....	[7] 107	[6] 103
1915.								
January	108	95	.....	111	.....	[8] 101	[7] 113	[6] 107
April	113	107	.....	113	.....	.....	[7] 121	[6] 114
July	120	95	.....	112	.....	[5] 106	[7] 124	[6] 119
October	127	100	.....	112	.....	.....	[7] 128	[6] 120
1916.								
January	133	111	.....	116	.....	[8] 110	[7] 130	[6] 126
April	132	116	.....	118	.....	.....	[7] 134	[6] 129
July	132	111	.....	119	[9] 160	[5] 113	[7] 142	[6] 140
October	132	111	.....	120	.....	.....	[7] 152	[6] 144
1917.								
January	144	124	.....	127	.....	[8] 116	160	[6] 148
February	154	127	.....	126	.....	.....	166	.....
March	161	121	.....	126	.....	.....	170	158
April	164	120	.....	127	.....	.....	175	.....
May	167	123	.....	128	.....	.....	175	.....
June	171	136	.....	128	.....	.....	175	179
July	172	137	.....	127	.....	[5] 127	177	.....
August	178	143	.....	127	214	.....	181	.....
September	188	142	.....	129	.....	.....	187	192
October	.....	148	.....	130	.....	.....	192	.....
November	197	166	.....	130	.....	.....	200	.....
December	199	157	.....	132	.....	.....	212	197
1918.								
January	191	177	.....	133	.....	[8] 136	221	.....
February	221	181	.....	134	.....	.....	227	.....
March	247	199	.....	134	.....	.....	235	204
April	236	200	.....	137	.....	.....	247	.....
May	.....	202	.....	139	.....	.....	258	.....
June	239	199	.....	139	.....	.....	261	230
July	253	203	.....	139	279	[5] 151	268	.....
August	.....	208	.....	141	.....	.....	280	.....
September	267	219	.....	141	.....	.....	284	251
October	.....	235	.....	142	.....	.....	310	.....
November	.....	249	.....	144	275	.....	320	.....
December	.....	254	.....	150	275	.....	330	252
1919.								
January	.....	259	195	145	279	[8] 157	339	.....
February	.....	258	212	142	278	.....	334	.....
March	.....	243	205	141	278	.....	331	257
April	281	230	196	142	276	.....	337	.....
May	.....	232	186	142	271	.....	328	.....
June	.....	225	204	143	269	.....	319	261
July	.....	206	210	144	269	.....	310	.....
August	.....	207	207	146	272	.....	313	.....
September	.....	214	203	148	277	.....	309	.....
October	.....	241	204	150	280	.....	307	.....
November	.....	246	202	153	277	.....	309	.....
December	.....	252	199	155	279	.....	307	245
1920.								
January	.....	275	203	158	280	.....	298	.....
February	.....	299	205	160	280	.....	290	.....
March	.....	300	205	162	.....	.....	291	237

[3] January–July.
[4] Year 1913.
[5] April–September.
[6] Previous month.
[7] Quarter beginning that month.
[8] October–March.
[9] August.

Retail Price Changes in Great Britain.

THE following table gives for Great Britain the increase over July, 1914, in the cost of food and general family expenditure for June of each year, 1915 to 1920, and for each month in 1920. The food items included in this report are: Ribs and thin flank of beef, both British and chilled or frozen; legs and breast of mutton, British and chilled or frozen; bacon; fish; flour; bread; tea; sugar; milk; butter, fresh and salt; cheese; margarine; eggs; and potatoes.

The table gives percentage of increase, and is not one of relative prices, as is the table given for the United States. When making comparisons this should be borne in mind, and to obtain the relative prices it is necessary to add 100 to the percentage as given, e. g., for January, 1920, the increase in cost of food is 136 per cent, the relative price being 236.

The figures represent two comparisons: First, the increase in prices, based on the same kinds and quantities as used in July, 1914; second, the increase, based on the change in the standard of living, resulting from a substitution of one kind of food for another to meet war-time conditions.

The table shows that retail prices of food were 155 per cent higher in June, 1920, than in July, 1914, and that the increased cost of all items in the family budget was 150 per cent.

PER CENT INCREASE IN COST OF FOOD AND ALL ITEMS IN FAMILY BUDGET IN GREAT BRITAIN BASED ON JULY, 1914.

[Compiled from the British Labor Gazette.]

Year and month.	Food.		All items in family budget.	
	Retail prices (assuming same kinds and quantities).	Expenditures (allowing for estimated changes in consumption).	Cost (assuming same kinds and quantities).	Expenditures (allowing for estimated changes in consumption).
June, 1915	32			
June, 1916	[1] 59	[2] 40		
June, 1917	102	70	70–75	
June, 1918	108	[3] 52	[4] 100	[3] 65
June, 1919	104	[3] 87	[5] 105	[3] 95
1920.				
January	136	115	125	115
February	135	112	130	115
March	133	107	130	115
April	135	([6])	130–135	([6])
May	146	([6])	141	([6])
June	155	([6])	150	([6])

[1] Including tax on sugar and tea.
[2] Not including taxes.
[3] Based on change in standard of food consumption adopted by the Ministry of Food.
[4] The increase, excluding additional taxation, is 7 per cent less.
[5] The increase, excluding additional taxation, is 6 per cent less.
[6] No longer calculable, mainly owing to decontrol.

Analysis of the Present Price Situation.

THE present price situation in the United States receives thorough and comprehensive analysis in the May issue of The Annals of the American Academy of Political and Social Science, Philadelphia. In a series of 32 formal articles and 7 brief discussions by leading economists practically all aspects of the price situation throughout the United States as well as internationally are viewed from various angles. Consideration is given to the actual course of present-day prices in general; price factors in typical commodities—farm products, meat, wool, ready-to-wear clothing, lumber, other building materials, and various minerals—effect of prices upon production; cooperation in relation to prices; international finance and trade in their relation to prices; and, finally, inflation and prices and their relation to the world's monetary problems.

The emphasis of the great majority of the articles is upon the evils of the monetary system and their effect upon price movements. This emphasis is given clear expression in the article by the Swedish economist, Gustav Cassel (page 250):

> Though the present extreme confusion of the whole economic life of the world must, without doubt, be ascribed to several different causes, the general disorder of the monetary system seems to be one of the most essential of them. It is essential in that absolute sense that it is vain to look for any real or permanent improvement of the present conditions of production and trade if a certain stability is not previously restored to the world's monetary standards.

While there is a primary emphasis upon inflation as a cause of high prices, other factors are not overlooked. Next in importance to inflation is actual scarcity as a cause of high prices. Several authors deny the existence of a scarcity of commodities and hold that production has kept pace with the demand for goods. Basing his estimates on those of Wesley C. Mitchell (Price Bulletin of the War Industries Board No. 1), Prof. A. H. Hansen, of the University of Minnesota, contends "that after subtracting the war materials consumed by the United States, as well as the excess of materials sold to our allies, the physical product or supply of goods remaining is little if any lower than before the war."

Mr. Geo. E. Roberts, former director of the mint, holds that "there was a practically unlimited, competitive demand playing upon a strictly limited supply of labor and materials, and a great rise of wages and prices was the natural result." Prof. Jacob H. Hollander, of Johns Hopkins University, states that "the indictment of inflation as a consequence of fiscal bungling in our war economy rests squarely upon the doctrine that a relative increase in the volume of currency is the cause and not the effect of rising prices. With this conclusion the great body of theoretical economists and practical financiers in this country and abroad are now in agreement."

Mentioning briefly the course of prices of certain specific groups of articles, the conclusion seems to be, as respects farm products, according to Prof. Clyde L. King, of the University of Pennsylvania, that "producers of meats and of milk in general have not received price advances proportional to their costs nor proportional to the price advances for all farm products nor for all commodities. Sheep producers are the only exception to this rule." Cattle prices, according to Mr. L. D. H. Weld, of Swift & Co., did not decline after the war as

much as did prices of beef (wholesale); but prices of hides continued on the up grade. Another writer, Miss Katherine Snodgrass, of the Federal Reserve Board, New York office, sees "no reason to expect a radical reduction in wool prices. * * * However, as general prices recede, wool prices will decline also, but will probably remain on a higher level than average prices for some time to come." As to the prices of lumber, Prof. R. C. Bryant, of Yale University, states that "indications point to the maintenance of a high relative price level in the future. So far the increase in the wholesale price of lumber has not been reflected to a marked degree in the appreciation of the value of the raw material, stumpage, because of the lack of labor to operate present mills to capacity. * * * It is confidently expected that in the future we must pay a higher price than we have been accustomed to accept up to two years ago, unless we adopt adequate measures to meet the situation."

Among the commodities subject to Government control was copper. Studying the prices of this commodity, B. S. Butler, a member of the staff of the United States Geological Survey, concludes:

> It is apparent that during the period 1915 to 1917 the price of copper was high relative to the general advance in commodities. It is also apparent that the price agreed upon between the copper producers and the Government was considerably below the figure that is indicated by the general advance in commodities.

Falling Prices Undesirable.

SEVERAL articles in the volume under review call attention to the common failure to foresee the undesirability of a régime of falling prices. Fabian Franklin, of the New York Review, notes that "rising prices hurt people as consumers; falling prices hurt them as producers and business men. And, unfortunately, anything that hurts producers and business men has disastrous consequences far beyond the mere increase of their 'cost of living.'" Prof. E. M. Patterson, of the University of Pennsylvania, observes that "there seem to be strong reasons for endeavoring to maintain the present price level, but there are also serious difficulties. * * * Stabilization of prices at some level is perhaps the most important problem facing us for solution." Rapidly falling prices are equally as bad, if not worse, than rising prices. "A high price and wage level and a more stabilized market is the only possible thing that will stimulate production quickly enough to save the world from actual want or starvation." Prof. A. H. Hansen, of the University of Minnesota, notes that "the greatly increased production of the war period would have been impossible without considerable inflation"; that is, a considerable increase in prices.

In various articles there is a tendency to go back of the phenomenon of prices which indicate merely the results of what is happening to production and to try to ascertain the actual state of production and requirements. This is the significance of the articles dealing with the housing shortage, lack of building material and lumber, and the state of the copper and petroleum industry. A quotation from the article by the Director of the Geological Survey illustrates the point:

> The first lesson learned in the experience of meeting the insistent demands of a war program, with its rapidly expanding industries, was to think in terms of quantity

of commodity rather than its cost. So, while we can no longer afford to pay any price for immediate delivery we realize better that quantity is the truer measure of usefulness and that the totals stated in dollars may not express the advances in industrial growth they seem to show. We have lost some of our old-time faith in the dollar as a standard measure.

No mere study of prices would have been able to show us as does David White, of the United States Geological Survey, that "already the American petroleum industry has outgrown the capacity of our oil fields and even now it is to the extent of over 50,000,000 barrels yearly dependent upon oil from foreign sources." As a corollary to this emphasis on requirements in production, the article by Prof. A. H. Hansen, of the University of Minnesota, lays emphasis upon service as the basis of production. "Thus the process of producing goods is [at present] subordinated to the process of making profits, and the prosperity of society is viewed through the spectacles of the profit-receiving class."

COST OF LIVING, WAGES, AND PROFITS.

THE cost of living in relation to wages, both industrial and agricultural, and in relation to profits, is considered in a series of several articles. Mr. Erville B. Woods, of Dartmouth College, concludes that "American labor has prospered during the past five years in a negative sense, in that, in spite of high prices, it emerged at the end of 1919 no worse off, on the average, than before." At the same time, he is doubtful if labor has retrieved the losses which it sustained in real wages between the years 1900 and 1914, although the level of 1920 is about the same as that of 1914. Mr. B. M. Manly, former joint chairman, National War Labor Board, while arriving at the conclusion that the "profit of American corporations has increased during recent years far beyond any increase in the cost of living," observes that "there is no relation between profits and cost of living."

Prof. B. D. Mudgett, of the University of Minnesota, in attempting to discover whether profits have risen more rapidly than wages during the war, shows that the iron and steel industry enjoyed a very large increase in rate of profit during the war, a rate greater while the United States was actively involved than while neutral. Metals had very much the same history but were more prosperous during the period of neutrality.

The inefficiency of labor in relation to prices is adverted to in three articles. Prof. David Friday, of the University of Michigan, concludes that the spirit of the war has radically changed "our conception of what constitutes an honest day's work for an honest day's pay." Mr. Ordway Tead, of the Bureau of Industrial Research, New York, remarks that "industry has worked too long on the basis that all the workers want is wages. The thing to do now is to supply an incentive in the work itself, as well as in the rewards accruing out of the work," and Mr. Whiting Williams is of the opinion that the principal reason for the "lotsa time" propaganda among the workingmen "is founded on fear—fear which results from the every-day experience of men who think little but observe much, fear which is not allayed by the economist's

calm assurance that in the course of a generation or so everything will work out nicely." Mr. E. T. Trigg, of the National Federation of Construction Industries, confines himself to the statement that "notwithstanding the shortage of actual workers, industry is confronted with a reduction of from 30 per cent to 40 per cent in the daily production of the workers we have as compared to prewar man-hour production." He cites the alleged instance of bricklayers who formerly laid from 1,500 to 1,600 bricks per day but now lay 700 to 800.

INTERNATIONAL PRICE SITUATION AND REMEDIES.

THE complicated question of international price levels and exchanges under a régime of depreciated inconvertible paper money is explained in an article by Prof. John H. Williams, of Princeton. He reduces his subject to the simple principle "that one nation can not ordinarily determine international prices. It can only accept the international price and determine the amount of product it will export at that given level." Having in mind this principle, the present situation points to a need of maintaining prices at a higher level in the United States than elsewhere in order to stimulate imports necessary for the resuscitation of production in foreign countries. Sir George Paish looks to action by the League of Nations, and suggests the raising of a $20,000,000,000 loan, pledging the credit of the league for payment. On the other hand, former Assistant Secretary of the Treasury Oscar T. Crosby, observing the dangers of the relationship of debtor and creditor between national treasuries, would reduce the various national loans to negotiable form with a fixed and uniform rate of interest, make a clearing-house settlement of as much as possible, and offer the balance for sale to private purchasers.

Remedies of various kinds are suggested to meet the present unfavorable price situation. The remedies offered are generally of two distinct types—the first class suggested by economists who emphasize inflation as the cause of increased prices, and the second group by those who emphasize the demand theory of prices. Between these two groups are those who offer certain secondary remedies for the situation. Prof. Jacob H. Hollander, of Johns Hopkins University, emphasizes the inflation point of view:

> The bitter penalty of inflation is that its evils are, in the main, beyond remedy. Like some tissue-destroying malady of the human body, it changes the whole functional life of the society which has suffered its ravages. * * * The great evil of inflation has been social injustice. To atone in part for this by a gradual but courageous contraction of bank credit, with its reasonably certain consequence of an appreciating money unit as speculation is checked and production increases, is a wise and just policy.

Prof. Wm. A. Scott's remedies may be cited as typical of the demand theory:

> They are the increase in the production of staple commodities; the resumption of specie payments in Europe; and such a revision of the budgets of the government of the countries which were engaged in the World War as will enable them, out of current revenues, to pay current expenses, the interest on their public debts, and an annual sum sufficient for the accumulation of a sinking fund, adequate to the payment of the principal of their debts in a reasonable period of time.

Mr. B. M. Anderson, jr., of the National Bank of Commerce in New York City, warns against the notion "that any scheme for the regulation of the quantity of an irredeemable paper money can lead to stability, either in the internal or in the external value of that paper." Prof. Irving Fisher states that "while the immense amount of injustice created by the price upheaval of the war can not be undone, the amount of injustice will be less if a price level is chosen for the future, only slightly below the present price level, say 5, 10, or 15 per cent, varying in different countries." Mr. O. S. Beyer, jr., presenting the case of cooperation as a means of allaying part of the consumers' difficulties, admits that "the modifications in social psychology, which are necessary before the movement can have an appreciable effect on the costs and standards of living, must be slow and genuinely a part of the masses who are to be benefited."

The Depreciation of the Mark, and German Retail Prices.

AN ARTICLE in the Frankfurter Zeitung of April 3, 1920, attributes the recent fall in prices in Germany of chemicals, scrap, lard, firewood, and hides to the slight increase in value of the exchange of the German mark. This article is here briefly summarized:

In the week before the coup d'état of Dr. Kapp the price of the Swiss franc fell from the unprecedented level of 18.40 marks to 12.47 marks; that of the Dutch florin from 39 to 24.90 marks; that of the dollar from 100 to 72 marks; and that of the French franc from 7.80 to 5.60 marks. Since the price of one article after the other, in increasingly rapid sequence, approximated to the price obtaining in the international market, trade in such articles became of necessity a speculation in exchange rates. Attention has frequently been called to the dangers concealed in this approximation of prices. The improvement of the exchange has meanwhile commenced, to a very modest extent however, since the figures given above only mean that the German mark is now worth 7.9 Swiss centimes instead of 5.5. The recovery in the value of the mark can not be described as epoch making, especially when it is remembered that on January 1, 1920, the mark was still worth 11.4 centimes, and that there was a time before the war when it was worth 123 centimes. But at the same time this improvement has brought about the consequences which every clear thinking person expects as a result of a strengthening of the exchange rate.

For the past three weeks dealers in articles of commerce have shown a certain reticence, so that there can be no question of new business. An agent who normally does a large amount of business asserted that during this period he has not earned enough to pay his contributions to the insurance of his employees.

Marked as is the influence of the exchange rate upon the price of commodities, its influence with regard to other factors which contribute to the rise in prices would hardly have been so weighty had it not been for the fact that there is an ever-increasing shortage of

working capital. This shortage is especially felt by the retail dealer, as may be readily understood when the price he has to pay for goods at the moment as compared with normal times is taken into consideration. Goods which formerly cost 1,000 marks are now only to be obtained for an outlay 100 times as great; and this inflation of prices has only been felt in the last few weeks, for it is precisely the contracts most recently concluded which are based on prices that have reached a quite fantastic level. Many goods which were obtainable for 6 marks at the beginning of the year now cost 24 marks. Even the manufacturer and the wholesale dealer, who have made huge profits in the last five years, are unable any longer to raise the necessary working capital, especially when it is a matter of private undertakings and not of joint-stock companies. They have been able, however, to accumulate extraordinarily large reserves owing to the profits made during the war and the revolution, but the retail dealer, who was forbidden by law to demand excessive prices for his goods, and who, therefore, in most cases made smaller profits, is, at the moment, in a position of great embarrassment, which is all the greater because the industries, partly from necessity, partly from a shortsighted desire to exploit the situation, have during the last few years had recourse to new, and in part most objectionable, payment conditions. Formerly a three months' credit was not thought any too long in commercial circles, and the customer who paid in three months and did not run risks was regarded as thoroughly solvent. To-day matters have gone so far that cash on delivery is not deemed sufficient; a considerable payment must accompany the order. This state of affairs is doubtless only temporary, and in time customers will once more be given credit, but since the industries will suffer for a long time from shortage of funds, the wholesale dealer, who by virtue of possessing more money may be regarded in a measure as a banker and intermediary between the manufacturer and the retailer, will come into his own again. In fact, it is asserted that various wholesale firms in Berlin are already financing their retail customers.

So far the situation has been discussed merely from the standpoint of the retailer. But what is the position from the standpoint of the unfortunate consumer? Is he to hope for a pronounced fall in prices or not? It would be dangerous to cherish illusions. It is only necessary to recall the events of a year ago, when the blockade was lifted, and the result was a general disinclination to buy and a general prophecy of a radical change in prices. The poor purchaser was bitterly disappointed, for instead of a fall in prices there ensued the most frenzied inflation Germany has experienced. It had been forgotten that the depreciation of money could be internal as well as external. The reason for this depreciation has not yet been removed. So long as each Reichsbank report shows record figures of notes in circulation, so long as the minister of finance has to issue fresh treasury bonds, there can be no question of a change. New large wage increases are imminent, and, in addition, it must not be forgotten that the depreciation of the German exchange has not yet found its full expression in retail prices, apart from those of foodstuffs, which are now one-third lower in the wholesale trade. Manufactured goods supplied to customers up to the last few

weeks were, in part, produced from raw materials which, perhaps, were sold when the mark was equivalent to 10 or 15 Swiss centimes, and therefore it may be said that the improvement of the exchange affects prices the less the further the goods are removed from the raw material.

Cost of Living in Japan.

THE situation in Japan as to wages, prices, and the cost of living is analyzed by Dr. Victor S. Clark, formerly of the Carnegie Institution of Washington, in the May number of the Quarterly Journal of Economics.[1] This article emphasizes the influence of the currency problem in Japan upon prices and the cost of living.

The standard of living in Japan rose faster than the cost of living between the years 1900 and 1916. During the following year the situation was reversed so that by the close of 1917 the rise in wages since 1900 had become 105 per cent while that in prices had reached 154 per cent; at the end of the war the two were, respectively, 157 and 195 per cent above their level 18 years before. By the end of September, 1919, the price index had risen to 240 per cent above the level of 1900. The recent rise has been especially marked in the case of food, rice having quadrupled in price in less than two years.

This increase in prices has naturally stimulated the upward movement of wages, but the wage level is generally believed to be lower now, when compared with prices, than at the outbreak of the war. The traditional relation between prices and wages has not as yet been restored in Japan.

The greater part of Dr. Clark's article is concerned with currency inflation, speculation, and growth of investment in Japan during the war. The final paragraph of the article may be taken as a summation of the views of the author:

> So we have a whole constellation of economic phenomena—prices, wages, currency inflation, commodity speculation, and investment growth—moving almost in the same orbit. Moreover, that orbit is aberrant from the normal orbits we have been accustomed to observe. The great convulsion of the war is the proximate and obvious cause of this common aberration. But the economist will not rest content without a closer study of the method by which the cause has produced its successive effects upon each of these elements in our economic life, and the order in which this effect has been transmitted from the one to the other. Is currency inflation the stone that precipitated the avalanche? Japan affords a laboratory experiment which suggests, at least, that a nation's monetary system is one of the first points in the body economic that the disease of war attacks, and that from this base it spreads its toxins throughout the remainder of the business and social organism.

[1] Prices and currency in Japan, by Victor S. Clark. Quarterly Journal of Economics, Cambridge, Mass., May, 1920, pp. 432-444.

WAGES AND HOURS OF LABOR.

Tendency Toward a Shorter Work Week.

WHEN the Congressional Joint Commission on Reclassification of Salaries undertook the task of setting a new salary scale for the whole body of Government employees in the District of Columbia, it felt that one of the factors to be taken into consideration was the prevailing rate for similar work done outside of the Government, and in order to secure recent and first-hand information on this point it sent out agents to collect data concerning wages, salaries, and working conditions in occupations comparable to those filled by the Government workers. These inquiries were in the main limited to a zone extending to Boston on the north, Pittsburgh on the west, and Richmond on the south, in which prices and conditions generally are fairly similar to those in Washington. The sources from which information should be sought were decided upon by committees consisting of representatives of the public, of the Government employees, and of the administrative officers of the Government force. The list of sources submitted included corporations, large and small firms, public utility corporations, municipalities, universities, and in fact almost every imaginable type of organization carrying on any line of work resembling that done by any group of Government employees in the District of Columbia.

The schedules used included, in addition to the queries about wages and salaries, inquiries as to hours of work, payment for overtime, vacation and sick-leave privileges, qualifications required for the position, and the like. On some of these points it proved impossible to secure satisfactory information, but on others a considerable amount of data was collected. The question concerning hours of work was one which employers were quite generally willing to answer, and concerning which they could speak with full and definite knowledge. In view of the tendency toward shorter working hours which has been apparent for some time past,[1] it seems worth while to give the results of the inquiry on this point for certain lines of work. Much of the information collected dealt with classes, such as scientists, architects, teachers, and professional men whose work is on an entirely different basis from that of the industrial and commercial world generally. Other classes, such as the domestic workers and the janitorial and custodial forces, have scarcely as yet approached standardized hours and conditions. But for three groups, the unskilled workers, workers in the skilled trades, and clerical employees, conditions seemed sufficiently standardized to give significance to the hours found to prevail among them.

Taking up first the unskilled workers, the following table shows the situation concerning their weekly hours:

[1] See MONTHLY LABOR REVIEW, November, 1919, pp. 194–199.

DISTRIBUTION OF EMPLOYERS AND EMPLOYEES (UNSKILLED), BY HOURS OF WORK PER WEEK REQUIRED FROM SUCH EMPLOYEES.

Weekly hours.	Employers.		Employees.	
	Number.	Per cent.	Number.	Per cent.
Up to and including 44	10	31.3	157	18.2
44½ to 48, inclusive	10	31.3	260	30.2
48½ to 54, inclusive	3	9.4	101	11.7
Over 54	9	28.1	343	39.8
Total	32	100.0	861	100.0

The workers in this group included helpers to men in skilled trades, laborers, elevator operators, porters, stablemen, and the like. The helpers to skilled workers were apt to have the hours of the skilled workers, which accounts to a considerable extent for the group working but 44 hours per week. Where this factor did not come into play, hours ranged higher. It is rather a striking testimony, however, to the spread of the belief in a relatively short working day that over three-fifths of these employers had established a working week of 48 hours or less. Overtime might be worked if there was a need for it, but in such cases it was usually paid for.

The figures concerning the employees in the different hourly groups can not be taken as in any sense conclusive. The commission was not trying to make a comprehensive study of the establishments visited, and various causes might prevent the agent from getting full information as to the number of employees concerned. In a large establishment the official furnishing the information might not really know the number employed in a given line of work, or might be unwilling to give specific data, or the number might vary so much from week to week that an approximation would be difficult. All that can be said is that in a group of some 800 unskilled workers taken at hazard, nearly half had a week of 48 hours or less, while for the remainder the hours ranged upward, reaching in a few cases a 10-hour day and a 7-day week.

In the skilled labor service the number considered was larger, and conditions were more uniform. The following table shows how employers and employees were divided as to the hours required or worked:

DISTRIBUTION OF EMPLOYERS AND EMPLOYEES (SKILLED), BY HOURS OF WORK PER WEEK REQUIRED FROM SUCH EMPLOYEES.

Weekly hours.	Employers.		Employees.	
	Number.	Per cent.	Number.	Per cent.
Up to and including 44	20	38.5	1,732	74.6
44 and under 48	1	1.9	8	.3
48	21	40.4	394	17.0
49 to 58, inclusive	10	19.2	188	8.1
Total	52	100.0	2,322	100.0

Among these workers evidently a week of more than 48 hours is exceptional, while a week of not more than 44 hours is decidedly common. Generally speaking, this consists of five 8-hour days, with four hours on Saturday. Among the unionized trades this week seems especially general. It does not, of course, preclude overtime, which is paid for at a special rate.

A short working day on Saturday seems almost universal among these workers. Where the week consists of less than 48 hours, Saturday is always short. Where 48 hours is the customary week, 10 of the 21 employers arrange for a half day on Saturday, the employees affected by this arrangement numbering 329, or 83 per cent of the whole 48-hour group. Among the 10 employers having a week in excess of 48 hours, 5 arrange for a materially shorter day on Saturday, 162 of the 188 employees getting the benefit of this arrangement. Practically 96 per cent of the whole group of 2,322 skilled workers for whom reports on hours were received had the short Saturday as a feature of their regular week.

Prevailing Weekly Hours for Clerical Services.

FOR SOME years past organized labor has made the 48-hour week one of its aims, changing its standard recently to the 44-hour week, so that the prevailing hours in this group are not surprising. The situation, however, in the third group considered—the clerical workers—is striking in view of the fact that these employees are not often organized, and that they have made little or no combined effort to secure a short working-day. Their hours represent, more than is the case in the skilled trades, the opinion of the employers as to the most desirable length for a working-day. For them the figures as to hours range as follows:

DISTRIBUTION OF EMPLOYERS AND EMPLOYEES (CLERICAL SERVICES), BY HOURS OF WORK PER WEEK REQUIRED FROM SUCH EMPLOYEES.

Weekly hours.	Employers.		Employees.	
	Number.	Per cent.	Number.	Per cent.
Up to and including 39	32	34.0	945	11.9
39½ to 42, inclusive	23	24.5	4,176	52.7
42½ to 45, inclusive	26	27.7	2,574	32.5
45½ to 48, inclusive	6	6.4	213	2.7
Over 48	7	7.4	17	.2
Total	94	100.0	7,925	100.0

This shows the 45-hour week accepted as the outside limit of working time among employers of clerical service even more generally than the 48-hour week is among employers of skilled labor. Shorter hours are common. Approximately three-fifths of the employers keep their week within 42 hours and one-third fix 39 hours or less as the limit. This latter standard seems to be especially common in the business sections of the large cities visited. This was corroborated by a nonstatistical inquiry made independently, concerning which the following memorandum, properly signed, was filed with the commission:

This is to certify that I have written to attorneys and executives in the office-building districts in Boston, New York, and Chicago inquiring about the hours of clerks and stenographers in such districts in their respective cities, and the replies have uniformly been to the effect that employees of this character start to work at 9 a. m., cease work at 5 p. m. and take one hour for lunch except on Saturday, when the offices close at 1 o'clock throughout the year. The testimony is to the effect that the almost universal practice in office buildings where the work is similar to that in the Government service is to close at 5 o'clock on week days and at 1 o'clock on Saturdays throughout the year, when the charwomen and the janitor force take possession of the offices.

The average hours of service indicated by replies are 39 hours a week, in contradistinction to the 42 hours a week required 9 months in the year in the Government service in general.

(Signed) ——— ———

DECEMBER 19, 1919.

The general observance of the short week in the large cities appears from the fact that of the 55 New York employers included in the preceding table only 7 had a week of more than 45 hours. The other 6 cases of a week in excess of 45 hours were found, 3 in Washington and 1 each in Philadelphia, Baltimore, and in a Virginia city.

A reduction of hours on Saturday is very common. Of the 94 employers included in the above table, 79 had a half day or less on Saturday the year around. Of the other 15, one closed all day Saturday during July and August and three had a 4-hour day on Saturday through the three summer months. It is worth noticing that six of the cases of no Saturday half day were found among employees of either hotels or of telegraph and news companies, where the nature of the work seemed to make short hours difficult to arrange. Six of the 15 employers normally requiring a full day on Saturday were found in New York City, five in Washington, and one each in Baltimore, Boston, Philadelphia, and in a Virginia city. The Washington proportion is large, constituting nearly two-fifths of the employers visited. Possibly the Government hours set the standard in this city.

Summing up the situation as shown by this inquiry, it would seem that for unskilled labor as yet no definite standard has been reached, the hours depending on whether or not the unskilled is associated with a skilled worker or on the particular kind of work and the individual employer involved. For skilled labor the 8-hour day as a standard seems to have been won, and considerable progress appears to have been made toward securing the 44-hour week. Employers of clerical workers seem to have accepted 45 hours as the outside limit of the standard week, only about 14 per cent of them having a week longer than this and over a third having a week of 39 hours or less. A day of from 3 to 4 hours on Saturday was found to be very common.

Readjustment of Salaries in the Postal Service.

IN THE appropriation act covering the service of the Post Office Department for the fiscal year ending June 30, 1920, a provision was incorporated providing for a commission on the reclassification of salaries of postmasters and employees of the Postal Service. This commission was made up of members of the Committees of Post Offices and Post Roads of the House and Senate, respectively, five members being appointed from each. The commission made a

unanimous report to the session of Congress just closed recommending reclassification and a general increase in salaries throughout the service. A bill based on the commission's recommendations was passed in the closing days of the second session of the Sixty-sixth Congress, receiving the President's approval on June 5. It became effective on July 1, 1920, the appropriation for the year ending June 30, 1921, approved April 4, 1920, being made available for the payment of the salaries at the new rates, such additional sums as are necessary being also appropriated by the present act.

The largest groups of persons affected are the letter carriers and clerks in the city post offices. There are approximately 45,000 of the first and 40,000 of the second group, largely interchangeable in service and subject to the same entrance requirements and methods of promotion. Instead of the six grades previously existing there are now five, whose basic salaries are as follows:

First grade, $1,400 in lieu of $1,000 as formerly; second grade, $1,500 in lieu of $1,100; third grade, $1,600 in lieu of $1,200; fourth grade, $1,700 in lieu of $1,300; fifth grade, $1,800 in lieu of $1,400 and $1,500 paid to employees of the fifth and sixth grades as formerly existing. Printers, mechanics, and skilled laborers are also graded, class 1 being advanced from $1,150 to $1,400 per annum; class 2, from $1,265 to $1,500 and $1,600 according to length of service; and class 3, from $1,380 to $1,600 and $1,700.

Railway mail clerks number about 21,000, and are distributed among six grades by the new measure, the first grade receiving an annual salary of $1,600 instead of $1,300 as formerly; the second grade, $1,700 in lieu of $1,400 and $1,450; the third grade, $1,850 in lieu of $1,550 and $1,650; fourth grade, $2,000 in lieu of $1,750 and $1,825; fifth grade, $2,150 in lieu of $1,925 and $2,025; and the sixth grade, $2,300 in lieu of $2,125. Laborers formerly received $1,235 per annum, and are now divided into two grades, the first to receive $1,350 and the second $1,450 per annum.

Changes in the rural delivery service are not so great, a standard 24-mile route calling for a compensation of $1,800 per annum instead of $1,700; the 22-mile route, $1,728 instead of $1,590; the 20-mile route, for $1,620 instead of $1,500, etc. The present minimum payment is $735 per annum for routes 6 miles and less than 8 miles in length, and this amount is increased to $792. The allowance of $24 per mile per annum for horse-drawn vehicle service for each mile in excess of 24 miles is increased to $30. These increases affect approximately 23,000 rural carriers.

Other provisions cover increases for all classes of postmasters, assistant postmasters, inspectors, cashiers, bookkeepers, superintendents, etc., the aggregate increase amounting to about $33,000,000.

Besides the salary increases, provision is made for the allowance of 15 days' leave of absence with pay, each fiscal year, exclusive of Sundays and holidays; also sick leave with pay at the rate of 10 days per year, to be cumulative for a period of three years, but no sick leave with pay in excess of 30 days may be granted during any three consecutive years. Promotions of clerks, letter carriers, and laborers in city post offices and the railway mail service are automatically made annually at the beginning of the quarter following a year's satisfactory service in the next lower grade.

Adjustment of Labor Disputes in Packing House Industries.[1]

THE importance of continuous operation of the packing-house industries during the war led to an early established arrangement for the adjustment of labor disputes in this field. Agreements were made with the President's Mediation Commission in December, 1917, for the appointment of a United States administrator to make decisions with regard to wages, hours, and conditions of employment in dispute between employers and employees in certain large establishments. Originally 18 questions were submitted for immediate arbitration by the administrator, but by negotiation between the parties agreements were reached as to 12, leaving 6 to be passed upon by the administrator, Judge Samuel Alschuler, of Chicago.

The agreements reached by the parties covered the matter of direct appeal by workmen who felt themselves aggrieved, first to the foreman, and in failure of satisfactory agreement, ultimately up to the general manager of the company. Such appeals might be made in person or by a representative or representatives chosen by those interested, though no permanent person or committee should be chosen to present grievances. Persons covered by the agreement were not to be suspended, demoted, or dismissed without just and sufficient cause, and if unjust action had been taken against an employee and this was disclosed by investigation, he should be reinstated. Membership in trade-unions or activity in their interests was not to be ground for discipline, provided that no union activities should be carried on on the premises, nor interfere with the operation of the plant. Attendance at conventions or the performance of like duties was to be permitted on the giving of proper notice and, although no pay would accrue, there should be no loss of status. No discrimination should be made on account of creed, color, or nationality, and principles of seniority must control as to all employees below the grade of foreman. Employment for 30 days was to be regarded as prima facie proof of competency, and after this period specific ground for discharge had to be adduced. The companies were required to furnish proper dressing rooms, lunch rooms, washrooms, and toilets, and employees were not to be required to join company sick or death benefit associations.

The questions submitted for arbitration related to hours of labor, overtime work, wages, and guaranteed time. The various points are discussed by Judge Alschuler in his award. The basic 8-hour day being regarded as sanctioned by public policy, and by economists and sociologists who have given the matter a large amount of study, certain adjustments of plants and equipment were found to be necessary in order economically to operate on the 8-hour shift in lieu of the 10-hour day which was contemplated when the plants were constructed and equipped. It was found that the demand was not for an actual 8-hour day, but for a basic 8-hour day, with adjustments for overtime work. It was concluded to install the basic 8-hour day after a fixed adjustment period. To the proposition that compensation for

[1] Source: Seven pamphlets issued by the United States Administration for adjustment of labor questions arising in certain packing-house industries, Samuel Alschuler, United States Administration. Findings and awards, February 15, 1919, to April 26, 1920. [Chicago, 1919, 1920.]

Sundays, holidays, and overtime work should be at a higher rate than during the regular period of service, both parties agreed. There was disagreement with regard to the holidays for which allowance should be made and also to the rate of extra pay. The employers also wished to compute overtime on the basis of excess hours per week instead of per day, but this was regarded as affording an undesirable opportunity for excessive hours on certain days and no employment on others.

As to the allowance of 20 minutes for lunch on employers' time where three 8-hour shifts are worked there was no opposition and the demand was granted.

The reduction from a 10-hour day to an 8-hour day called for an adjustment of the hourly wage, while the increase in cost of living demanded a general raising of the weekly earnings. Budgets ranging from about $800 to $2,000 were submitted as representing cost of living, and the difficulty of reconciling them was such that they could be regarded as only suggestive. The rate of 27½ cents per hour, which was paid "what may be termed common laborers," produced for a 10-hour day $825 for a year's work of 300 days. This amount was felt to be inadequate, so that an increase was granted to employees receiving this amount or less, and also to those receiving "considerably more."

Equality of wage rates for males and females when the same class of work was done was claimed by employers. This appeared to be true where piecework was involved, but hourly rates evidently varied, and it was the contention of superintendents that this was due to the lighter forms of work done by the female workers even though they worked in the same part of the establishment as the men. The conclusion was reached that there was a general equality where the same class of work was actually done, whether by time or piece.

The final question related to guaranteed time. The custom to guarantee a certain number of hours work per week was based on the 10-hour day, and the employers contended that if the 8-hour day should be introduced a corresponding reduction in the weekly guaranty should be made. Judge Alschuler did not approve of this contention, but was of the opinion that the 45-hour guaranty of Swift & Co. was too close to the 48-hour week of the new schedule, and should be reduced to 40 hours. In weeks in which holidays occurred the guaranteed time was fixed at 33½ hours; otherwise no change in the customs in force on November 30, 1917, was to be made.

Provisions of the Awards.

THE awards therefore were: (1) That there should be a basic 8-hour day, to be completed as far as possible within nine consecutive hours; (2) that double time be paid for work on Sundays and on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas, and that after the introduction of the basic 8-hour day the rate should be time and a quarter for the first two hours in excess, and time and one-half for additional time; (3) that 20 minutes with pay be allowed for lunch where three 8-hour shifts are worked daily; (4) that based upon the wages of December 31, 1917, 4½ cents per hour should be added to

the wages of those who were receiving 30 cents or less, 4 cents to those receiving more than 30 cents, but not more than 40 cents per hour, and 3½ cents to the wages of employees then receiving more than 40 cents, a corresponding increase to be made to pieceworkers; (5) that wage rates should be the same for the same class of work whether done by men or women. The conclusion as to guaranteed time has been set forth. This order was issued March 30, 1918, to be effective as to the basic 8-hour day on May 5 following, and as to wage increases from January 14 preceding the date of issue.

On November 12, 1918, demands were filed for arbitration regarding various changes in working conditions, and as to an increase in wages to meet the steadily rising cost of living. A series of conferences between employers and employees resulted in an agreement on the greater number of the points involved, but left for arbitration a few points of varying importance, the two of chief interest relating to rates for overtime and a minimum wage for common labor. The discussion by Judge Alschuler in his award covered the advance in prices of various articles of consumption, and considered the conditions following the termination of war activities that had taken place almost contemporaneously with the filing of the demands. It was found impossible to adjust fairly a fixed rate in the "hundreds of separate operations in this highly specialized industry," for which widely varying demands for increases were made; and it was urged that the parties in direct interest who had practical knowledge of the conditions controlling should establish means "not fleeting and temporary, but fixed and permanent, for fairly adjusting all differences as they may arise."

The greater part of this award, made February 15, 1919, relates to details of interest to the persons immediately concerned, but involving local conditions and technicalities that render a general understanding of them difficult. In view of the increased labor supply and the growing recognition of the 8-hour day in industry, it was felt that there should be a general acceptance of the day, not merely as basic but as actual, so that beginning with March 2, 1919, all time in excess of eight hours should be paid time and a half, instead of time and a quarter for the first two hours as before. A general increase of 10 per cent on existing wages was also awarded on all wages up to and including $20 per week. Further adjustments might be made if living costs are shown to "materially and substantially increase or decrease," applications for adjustments not to be made at shorter intervals than 30 days.

An award bearing date of December 1, 1919, covers a number of points submitted in July and September of that year, almost continuous hearings being held from August 12 to October 16. One of these demands was for a general wage increase, and this was met in part by an award of an additional 7½ per cent to the award of February 15, 1919, making a total of 17½ per cent over the first award, this percentage to be computed on not exceeding $20 of each week's earnings. As to the demand by mechanical workers, employed in occupations corresponding to the building trades, it was felt that the standards in the building trades could not be accepted, as in the packing houses employment was much steadier and did not involve the uncertainty of outside work. Certain increases were, however,

allowed, the most important being 12½ per cent to be added to the rate resulting from the award of March 30, 1918, but excluding the 10 per cent addition made by the award of February 15, 1919, this to benefit skilled workers, while helpers were to receive an 8 per cent increase.

The demand for a 44-hour week, by reducing the Saturday workday to 4 hours, was felt to be too rapid a reduction from the recently discarded 10-hour day, and was denied, as was the demand for double time for overtime work of every sort. Other demands, like some referred to in the award of February 15, were of less general interest, but in the main resulted in an adjustment affording a measure of satisfaction to the workers making the demand.

The next award bears date January 20, 1920, but is taken up entirely with questions as to single items or groups of construction work by one company or another in the various cities. Particular points were also taken up in an interpretative award of February 5, 1920, as to the application of certain sections of the award of December 1, 1919. These relate to groups of skilled and semiskilled workers on the killing floors or in mechanical employments, and may be passed with the comment made by Judge Alschuler that "the breadth with which these sections have been quite generally applied is gratifying," the matter under consideration being whether or not the employees making application could fairly be regarded as coming within the awards made.

On April 8, 1920, hearings were concluded in behalf of all packing-house employees who did not participate in the benefits of certain awards made on December 1, 1919. Request was made at this time for a uniform increase of 3 cents per hour in the wages of such persons, and this demand was allowed in an award dated April 26, 1920, not as an interpretation of the earlier award, nor as an amendment to it, but as an original demand in behalf of certain workers not previously covered.

The increases allowed by the awards of February 15, 1919, and December 1, 1919, had been known as bonus payments, and it was urged that the increases made by these orders should be incorporated in the regular wage. Judge Alschuler approved of this action, and inasmuch as the increase, amounting to 17½ per cent on not exceeding $20 of the weekly earnings, actually produced in practically all cases a so-called bonus of $3.50, it was directed in this order of April 26 that on and after the 3d of May, 1920, bonus payments as distinct from wage payments should cease and the sum of $3.50 be added as part of the regular wage rates; or, in the case of hourly employees, that 7.3 cents be added to the hourly rate.

The benefits of the foregoing award shall extend and continue to those who are subject to the agreements for this administration, while those agreements remain in force, but not to such, if any, who hereafter, by means of strikes or walkouts, stand in defiance of those agreements.

On the same day hearings were concluded in the foregoing case, hearings were also concluded with regard to employees of the Union Stock Yards & Transit Co. of Chicago, for an increase in wage rates; and likewise an award was made on the same day as the order last above noted. An interesting concession is made by Judge Alschuler in the course of his discussion of the demands for a flat increase by

the yards employees, in which he says: "I freely admit that my over two years of intimate experience with these matters has brought me but little, if any, nearer than I was at the commencement to a comprehension of scientific wage-rate fixing, if indeed there is such a thing."

In behalf of these men, instead of the flat increase of from $30 to $35 per month asked for, the award consolidated the bonus heretofore paid, which usually amounted to $15.16 per month, with the regular wage rate, and also added thereto the sum of 3 cents per hour, estimated to have a monthly value of $9.50. These additions afforded a typical group of yardmen, whose basic wage had been $97.20 per month, a wage of $121.86, based on the 8-hour day without including overtime and holiday work, or Sunday work when not within the monthly rates. The attention of certain striking yardmen, who had gone out with no grievance pending, was called to the necessity of good faith and honorable observance of agreements made if there was to be any satisfactory maintenance of relations, and the benefits of this award were limited to such workers as should live up to the provisions of the agreement without going on strike or otherwise violating its terms.

A third award was issued on April 26, representing the conclusions of a hearing held April 19 on the subject of guaranteed time. The yardmen and stock handlers' strike of March 29, referred to above, lasted about one week, causing an immediate cessation of certain lines of activity in the packing houses, while the switchmen's strike of April had much more serious effects. Occasional receipts of stock were possible during the strike, and workers were called in and given employment at such time, and the contention was made that the guaranteed weekly work time should be paid for by the employers, on the ground that there had been no real "lay off" of the workers. Judge Alschuler pointed out the entire uncertainty as to the period of these strikes, and the inability of the packers in any sense to control or determine the switchmen's strike, and held that what was done was in fact a laying off of the men, and that the industry should not be held responsible for guaranteed time. Of the plea that their weekly pay was a necessity for the maintenance of livelihood of the employees it was said that "this, alas, is too true," but that it was the common fate of all who had been thrown out of employment by the same switchmen's strike or by any other cause leading to unemployment, and that it was not within the province of the administrator to burden this industry alone with the support of its workers during lay offs and other periods of involuntary unemployment.

This involves a great economic problem, which should be, and I believe before long must be, solved through general application of some nation-wide plan whereby the burden of such undertaking will be in just proportion ultimately borne by all.

Rates of Pay and Working Conditions in Certain Marine Occupations.

THREE agreements fixing new wage scales, or renewing the old scale, and establishing working conditions aboard ships for certain officers and seamen and other employees numbering upward of 50,000 men in the trans-Atlantic, Atlantic, and Gulf coast services were signed in June, effective for one year from May 1, 1920. The parties to the agreements are the United States Shipping Board, the American Steamship Owners' Association, and the following organizations of workers: Eastern and Gulf Sailors' Association (Inc.); Marine Firemen's, Oilers' and Watertenders' Union of the Atlantic and Gulf, and Marine Cooks' and Stewards' Association of the Atlantic and Gulf. Each agreement contains provision for an 8-hour day while vessels are in port, with overtime rates for hours in excess of eight and for holiday and Sunday work. Employees of the stewards' department, when the vessel is at sea, are required to work 10 hours; no overtime is paid for work while at sea. The overtime rates while in port are 60 cents per hour for the chief steward and chief cook and 50 cents per hour for all other employees of the department. Under the other agreements the overtime rate is 60 cents per hour. When members of the crews are not fed or lodged aboard the vessel each is allowed 75 cents for each meal and 75 cents for each night ashore, except that the chief steward shall receive "the same amount for subsistence and room allowances as is accorded to licensed mates and assistant engineers."

To each agreement is appended the following note defining the action to be taken should any dispute arise, the name of the workers' organization affected being supplied in the blank space:

> Should any dispute arise during the life of this agreement as to interpretation of same, the matters in dispute shall be submitted to a committee of three representatives of the ———— and three representatives of the American Steamship Owners' Association (who shall also be managing agents of Shipping Board vessels), with Winthrop L. Marvin as chairman, decisions of the committee to be final.

Wage Provisions of the Agreements.

THE agreement affecting members of the Marine Firemen's, Oilers' and Watertenders' Union of the Atlantic and Gulf provides the following monthly wage scale:

Deck engineers	$100.00
Pump men	100.00
Donkey men	95.00
Storekeepers	95.00
Oilers	95.00
Firemen	90.00
Coal passers and wipers	75.00
Water tenders	95.00

The monthly wage scale for the Eastern and Gulf Sailors' Association (Inc.), as set forth in their agreement, is as follows:

Carpenters	$100.00
Carpenter's mates	95.00
Boatswains	95.00
Boatswain's mates	90.00
Quartermasters	87.50
Able-bodied seamen	85.00
Ordinary seamen	65.00
Boys	40.00

The agreement with the Marine Cooks' and Stewards' Association of the Atlantic and Gulf, affecting the stewards' department, does not fix a new scale of wages but states that the present scale is continued and appends the scale to the agreement, as follows:

WAGE SCALE OF THE MARINE COOKS' AND STEWARDS' ASSOCIATION OF THE ATLANTIC AND GULF.

Position.	Passenger vessels.			Freight vessels.	
	Overseas; over 150.[1]	Overseas and coastwise; 150 to 100.[1]	Coastwise; under 100.[1]	Foreign.	Atlantic and Gulf.
Chief stewards	$160	$145	$135	$135	$115
Second stewards	95	95	.....	.....	.....
Chief cooks	135	125	115	115	110
Second cooks and bakers	.....	.....	100	100	100
Second cooks	100	100	85	85	85
Third cooks	90	70	.....	.....	.....
Vegetable cooks	75	.....	.....	.....	.....
Cook's mates	70	70	.....	.....	.....
Bakers	115	105	.....	.....	.....
Second bakers	85	.....	.....	.....	.....
Steam cooks	85	85	.....	.....	.....
Butchers	95	95	95	95	.....
Second butchers	85	.....	.....	.....	.....
Storekeepers	85	.....	.....	.....	.....
Pantrymen	75	.....	.....	.....	.....
Scullions	70	.....	.....	.....	.....
End men	70	70	70	70	.....
Messmen	70	70	70	70	70
Deck messboys	65	65	65	65	65
Engine messboys	65	65	65	65	65
Steward's messboys	65	65	65	65	65
Steward apprentices	40	40	40	40	40
Doctors	150	150	.....	.....	.....

[1] Refers to the number of men in the steward's department. On the freight vessels this number is not fixed, but is variable.

Wages of Male Farm Labor in the United States in Specified Years, 1866 to 1919.

THE following table gives the average rates of wages of male farm laborers in the United States in specified years, 1866 to 1919, as reported by the Department of Agriculture. The average embraces all sections of the country.

For purposes of ready comparison with wage changes in other industries and with changes in the cost of living (see MONTHLY LABOR REVIEW for June, 1920, p. 79) index numbers have been computed for the years 1913 to 1919, inclusive. To illustrate: Wages by the month with board are shown by the index number to be 86 per cent higher in 1919 than in 1913.

WAGES OF CERTAIN CLASSES OF MALE FARM LABOR IN SPECIFIED YEARS, 1866 TO 1919.

[From the Reports of the Department of Agriculture.]

Year.	By the month.		Day labor, at harvest.		Day labor, not at harvest.	
	With board.	Without board.	With board.	Without board.	With board.	Without board.
1866	$17.45	$26.87	$1.74	$2.20	$1.08	$1.49
1869	16.55	25.92	1.74	2.20	1.02	1.41
1875	12.72	19.87	1.35	1.70	.78	1.08
1879	10.43	16.42	1.00	1.30	.59	.81
1882	12.41	18.94	1.15	1.48	.67	.93
1885	12.34	17.97	1.10	1.40	.67	.91
1888	12.36	18.24	1.02	1.31	.67	.92
1890	12.45	18.33	1.02	1.30	.68	.92
1892	12.54	18.60	1.02	1.30	.67	.92
1893	13.29	19.10	1.03	1.24	.69	.89
1894	12.16	17.74	.93	1.13	.63	.81
1895	12.02	17.69	.92	1.14	.62	.81
1898	13.43	19.38	1.05	1.30	.72	.96
1899	14.07	20.23	1.12	1.37	.77	1.01
1902	16.40	22.14	1.34	1.53	.89	1.13
1910	19.21	27.50	1.45	1.82	1.06	1.38
1911	20.18	28.77	1.49	1.85	1.09	1.42
1912	20.81	29.58	1.54	1.87	1.14	1.47
1913	21.38	30.31	1.57	1.94	1.15	1.50
1914	21.05	29.88	1.55	1.91	1.13	1.45
1915	21.26	30.15	1.56	1.92	1.13	1.47
1916	23.25	32.83	1.69	2.07	1.26	1.62
1917	28.87	40.43	2.08	2.54	1.56	2.02
1918	34.92	48.80	2.65	3.22	2.07	2.63
1919	39.82	56.29	3.15	3.83	2.45	3.12
Index numbers (1913=100).						
1913	100	100	100	100	100	100
1914	98	99	99	98	97	97
1915	99	99	99	99	97	98
1916	109	108	108	107	109	108
1917	135	133	132	131	135	135
1918	163	161	169	166	178	175
1919	186	186	201	197	211	208

Average Weekly Earnings in New York State Factories Compared with Retail Food Prices.

THE table following, published by the Bureau of Statistics and Information of the New York State Industrial Commission, brings into comparison the monthly changes in the average weekly earnings in that State with monthly changes in average retail prices of food in the United States for the period June, 1914, to May, 1920, inclusive.

The figures relating to earnings are computed from data collected currently by the State bureau, and the food figures are derived from prices collected and published currently by the United States Bureau of Labor Statistics. In the index numbers for retail prices of food, as published elsewhere in this issue, the average price for the year 1913 is taken as the base or 100, but in order that comparison may be made with earnings in New York State factories which were first available for June, 1914, the index numbers of food prices have been recomputed with that month as the base, or 100.

COMPARISON OF COURSE OF AVERAGE WEEKLY EARNINGS IN NEW YORK STATE FACTORIES WITH COURSE OF RETAIL FOOD PRICES IN THE UNITED STATES.

[The figures are indexes with June, 1914, as 100.]

Month.	1914		1915		1916		1917		1918		1919		1920	
	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.	Average weekly earnings, New York factories.	Retail food prices in United States.
January	.....	.....	98	104	107	108	120	129	[1] 132	162	181	187	209	203
February	.....	.....	98	102	108	107	121	134	139	163	174	174	208	202
March	.....	.....	100	99	110	108	124	138	147	156	175	177	219	202
April	.....	.....	99	100	111	110	122	146	152	156	174	184	219	213
May	.....	.....	100	101	112	110	127	153	157	160	175	187	224	218
June	100	100	101	101	113	113	128	154	161	164	177	186	.....	.....
July	99	103	100	101	111	112	127	147	164	169	182	192	.....	.....
August	99	108	102	101	114	114	129	151	167	173	188	194	.....	.....
September	98	108	101	102	117	119	134	155	176	180	196	190	.....	.....
October	97	106	105	104	118	122	136	159	176	183	192	190	.....	.....
November	97	106	106	105	119	127	139	157	[2] 170	185	200	194	.....	.....
December	99	106	106	106	122	127	139	159	183	189	207	199	.....	.....
Average for year	98	105	101	102	114	115	129	147	160	170	185	188	.....	.....

[1] Drop in January, 1918, was due to Fuel Administrator's closing order for Jan. 18–22.
[2] Drop in November, 1918, was due to closing of factories on Nov. 11, Armistice Day.

Rates of Wages Paid by New York City January 1, 1916 to 1920.

A REPORT issued by the board of estimate and apportionment of the city of New York shows for January 1, 1916 to 1920, inclusive, the rates paid by the city to various trades. The report explains that the rates paid by the city of New York to skilled trades are governed by the rates prevailing in private employ, as provided by the State Labor Law. It is also noted that in 1918 demands for increased wages by the 100 different skilled trades and allied occupations in city employ were more frequent than in the preceding year, and that in 1919 requests for additional compensation became general. This move resulted in 14 of the trades securing for the first time a rate of $8 a day. The following table gives the rates paid in certain of the more important occupations on January 1 of the years specified:

PREVAILING DAILY RATES OF WAGES PAID BY NEW YORK CITY, JANUARY 1, 1916, TO 1920.

Occupation.	Wage rate January 1—					Per cent of increase, 1920 over 1916.
	1916	1917	1918	1919	1920	
	Daily rate.					
Auto machinist	$4.50	$4.50	$5.00	$6.00	$6.40	42.2
Blacksmith	4.50	4.50	5.00	5.50	8.00	77.8
Blacksmith's helper	3.00	3.00	3.50	3.50	5.00	66.7
Boiler maker	4.25	4.25	4.50	5.60	6.40	50.6
Brass finisher	4.00	4.00	4.00	5.00	5.60	40.0
Bricklayer	6.00	6.00	6.00	6.50	8.50	41.7
Carpenter	5.00	5.00	5.50	5.50	7.00	40.0
Core maker	3.50	4.00	4.50	5.00	6.00	71.4
Electrician	4.80	4.80	5.20	6.00	8.00	66.7
Electrician's helper	3.00	3.00	3.25	3.25	4.00	33.3
Engineer, pile driver	5.00	5.50	5.50	6.00	8.00	60.0
Engineer, stationary	4.50	4.50	5.00	5.50	6.50	44.4
Engineer, steam roller	5.00	5.00	5.50	6.00	7.50	50.0
Fireman	3.00	3.00	3.50	4.33	5.00	66.7
Horseshoer	4.50	4.50	4.50	4.50	6.00	33.3
Housesmith	5.00	5.30	5.80	5.80	8.00	60.0
Lineman (electrician)	4.80	4.80	5.20	6.00	8.00	66.7
Lineman	3.00	3.00	4.80	4.80	5.20	73.3
Machine woodworker	5.00	5.00	5.50	5.50	6.50	30.0
Machinist	4.50	4.50	5.00	6.00	6.40	42.2
Machinist's helper	3.00	3.00	3.25	3.68	4.32	44.0
Marble setter	5.50	5.50	5.50	5.50	6.00	9.1
Marble setter's helper	3.25	3.25	3.50	3.50	4.00	23.1
Molder	4.00	4.00	4.50	5.00	6.00	50.0
Oiler	3.00	3.00	3.50	4.33	5.00	66.7
Painter	4.00	4.00	5.00	5.50	8.00	100.0
Pattern maker	4.50	4.50	5.00	5.00	7.00	55.6
Paver	5.00	5.00	5.00	6.00	8.00	60.0
Pipe fitter	5.50	5.50	6.00	6.00	7.00	27.3
Pipe fitter's helper	3.00	3.00	3.40	3.68	4.50	50.0
Plasterer	5.50	5.50	5.50	6.50	8.00	45.5
Plumber (gas fitter)	5.50	5.50	6.00	6.00	7.00	27.3
Plumber's helper	3.00	3.00	3.25	3.25	4.00	33.3
Rammer	4.00	4.00	4.00	5.00	7.00	75.0
Sheet-metal worker (tinsmith, roofer)	5.00	5.00	5.00	5.60	7.00	40.0
Ship carpenter	4.50	4.50	5.00	5.60	6.40	42.2
Steam fitter	5.50	5.50	6.00	6.00	7.00	27.3
Steam fitter's helper	3.00	3.00	3.40	3.68	4.50	50.0
Stonecutter	4.80	4.80	5.00	5.50	7.00	45.8
Upholsterer	4.50	4.50	4.50	5.00	6.00	33.3
Wheelwright	4.00	4.00	4.00	5.00	6.00	50.0
	Weekly rate.					
Compositor	$24.00	$25.00	$26.00	$28.00	$36.00	50.0
Feeder, press	17.00	18.00	18.00	24.00	30.00	76.5
Pressman	25.00	26.00	26.00	31.00	43.00	72.0
	Annual rate.					
Baker	$940	$940	$1,200	$1,380	$1,600	70.2
Bookbinder	1,200	1,200	1,260	1,500	1,800	50.0
Electrician	1,560	1,800	1,800	1,900	2,050	31.4
Engineer, stationary	1,750	1,750	1,800	2,000	2,280	30.3
Fireman	900	1,050	1,200	1,300	1,500	66.7
Horseshoer	1,400	1,400	1,400	1,500	1,650	17.9
Lineman	1,140	1,140	1,200	1,300	1,500	31.6
Painter	1,200	1,200	1,260	1,360	1,560	30.0
Sailmaker	1,100	1,100	1,100	1,200	1,400	27.3
Shoemaker	900	900	900	1,000	1,200	33.3
Tailor	960	960	1,080	1,180	1,380	43.8
Water tender	1,140	1,140	1,320	1,320	1,620	40.4
Wheelwright	1,080	.....	.....	1,180	1,380	28.8

Minimum Rates of Wages of Agricultural Laborers in Great Britain and Ireland.

PARTICULARS of revised wages and overtime rates of male agricultural laborers of 21 years of age and over in England and Wales and of all classes of agricultural laborers in Ireland are contained in the British Labor Gazette for May, 1920 (pp. 226, 227).

In England and Wales the Agricultural Wages Board has recently fixed a minimum wage for all male agricultural ordinary laborers of 21 years of age and over of 42s. ($10.22, par) per week in 35 counties in which the rate was previously 36s. 6d., 37s., 37s. 6d., or 38s. ($8.88, $9, $9.12, or $9.25, par) per week, and has increased by 4s. (97.2 cents, par) the rates in the remaining counties, where rates of 38s. 6d. ($9.37, par) and over were in force. The new rates became effective April 19, 1920. The hours of labor remain at 50 per week in summer and 48 per week in winter. The overtime rates have been increased to 1s. 1d., 1½d., or 1s. 2d. (26.4, 27.4, or 28.4 cents, par) per hour for week days and to 1s. 3½d., 1s. 4d., 1s. 4½d., or 1s. 5d. (31.4, 32.4, 33.5, or 34.5 cents, par) per hour for Sundays.

The Agricultural Wages Board for Ireland has issued an order, effective April 19, 1920, making certain changes in the minimum rates of pay, which are established for a week of 54 hours only instead of a week of 54 or 60 hours as formerly. Under the new order the country is divided into two area groups instead of three as under the old order. The following table shows the new wage rates:

MINIMUM WEEKLY RATES OF WAGES FOR AGRICULTURAL WORKERS IN IRELAND.

[1s. at par=24.3 cents; 1d. at par=2.03 cents.]

Area group.	Males.			Females over 18 years.
	Over 20 years.	18 to 20 years.	16 to 18 years.	
	s. d.	s. d.	s. d.	s. d.
Group I	32 6	29 0	19 6	[1] 19 6
Group II	30 6	27 6	18 0	[1] 17 0

[1] Female workers employed solely in milking who milk not less than 6 cows at one milking receive a minimum of 9d. in Group I and of 8d. in Group II for each milking. When less than 6 cows are milked the minimum is 6d. in Groups I and II.

It is explained that the minimum wage rates shown in the table for a week of 54 hours compare with 27s., 24s. 6d., and 22s. ($6.57, $5.96, and $5.35, par) per week for male workers over 20 years of age fixed by the previous order and with 16s., 13s. 6d., and 12s. ($3.89, $3.28, and $2.92, par) per week for female workers. Rates for overtime have been fixed at 7¼d. and 6¾d. (14.7 and 13.7 cents, par) per hour on week days and at 11d. and 10d. (22.3 and 20.3 cents, par) per hour (with a minimum payment of 2s. [48.7 cents, par]) on Sundays for adult male workers and at a lesser amount of other classes. The minimum rates quoted are inclusive of the value of certain allowances, including house, garden, potatoes, milk, grass turf, timber, and board and lodging, the maximum values of which have been fixed by the new order at slightly higher amounts in some cases than those previously in force.

Report of British National Maritime Board for 1917–1920.[1]

THE report of the National Maritime Board for 1917–1920 has just been issued and reveals important results achieved in the standardization of wages in the British mercantile marine, the provision of an adequate personnel, and the establishment of conciliatory boards to arbitrate and settle contentions with respect to wages, food, and general conditions on merchant ships. The representative interests consist of the shipowners' panel or shipping federation of six members, the navigating officers' panel of six members, engineer officers' panel of six members, sailors' and firemen's panel of six members, and catering department of six members.

In 1914 the rate of pay of an able-bodied seaman was £5 10s. ($26.77, par) monthly; at present it is £14 10s. ($70.56, par), food being provided by the shipowner in each case. The pay of the junior navigating and engineer officers was increased from £8 and £9 ($38.93 and $43.80, par) in 1914 to £19 and £20 ($92.46 and $97.33, par) at the present time. Corresponding improved rates were granted to other navigators, engineers, and artisans. The rates for officers in oil-tank steamers, refrigerator vessels, and motor vessels have also been standardized. The masters of British merchant ships receive, according to the size of the vessel, £34 to £50 ($165.46 to $243.33, par) per month, with increments bringing the remuneration up to a possible £42 to £58 ($204.39 to $282.26, par). It is interesting to note that an able-bodied seaman on an American merchant ship engaged in foreign trade now receives $85 per month, a third officer $160 to $200 according to the size of the vessel, and an American master from $300 to $400.

A prominent feature of the report deals with the establishment of a sea school at Gravesend for sailors and firemen. Boys of 16 years and over are trained in an intensive manner to enable them to join their first ship as effective members of the crew. The school does not contemplate training mercantile marine officers, but is organized to provide a supply of well-trained young men to the lower ratings.

The constitution of the National Maritime Board contains the following statement of the object of the organization:

> With a view to securing closer cooperation between the employers and employed the British mercantile marine in the maintenance of the maritime supremacy of the British Empire, there shall be constituted boards known as the national maritime board and district maritime boards (hereinafter called "the national board" and "district boards") for the purpose of—
>
> (*a*) The prevention and adjustment of differences between shipowners and seamen;
>
> (*b*) The establishment, revision, and maintenance of a national standard rate (or rates) of wages and approved conditions of employment for seamen; and
>
> (*c*) The consideration, regulation, and supervision of the supply, nationality, engagement, and discharge of seamen on British vessels by means of the establishment of a single source of supply jointly controlled by employers and employed.

[1] Data furnished by United States consul at London under date of Apr. 12, 1920, and published in Commerce Reports (Washington) for May 15, 1920.

Wages in New Zealand, 1913 to 1919.

THE New Zealand official yearbook for 1919 [1] contains, in addition to the usual statistics, a special article on wages and working hours in New Zealand, 1897 to 1919, "the results of an investigation of minimum wage rates and hours of labor as determined by awards and industrial agreements made under the provisions of the industrial conciliation and arbitration laws of New Zealand." The general conclusions reached were that hours of work steadily decreased over the whole period; minimum wage rates increased in a widely varying degree, the rates for skilled classes showing a smaller increase than those for unskilled or semiskilled workers; real or commodity wages definitely increased until about 1911; and the increase in wage rates was considerably accelerated during the war.

The following table is based on data presented in this volume and shows the actual and relative minimum rates of wages in New Zealand, by occupations, from 1913 to 1919. The year 1911 is taken as the base or 1,000.

AVERAGE ACTUAL AND RELATIVE MINIMUM HOURLY RATES OF WAGES IN NEW ZEALAND, 1913 TO 1919, BY OCCUPATIONS.

[1d at par=2 cents; index number based on 1911=1000.]

Occupation and year.	Hourly rate.	Index number.	Occupation and year.	Hourly rate.	Index number.
Bakers:[2]	*Pence.*		Bricklayers, journeymen:	*Pence.*	
1913	14.00	1117	1913	18.25	1000
1914	14.00	1117	1914	18.25	1000
1915	14.00	1117	1915	18.25	1000
1916	15.25	1217	1916	19.50	1068
1917	15.25	1217	1917	19.50	1068
1918	16.79	1340	1918	20.50	1123
1919	16.92	1340	1919	23.50	1288
Boiler makers:[3]			Builders' laborers:[5]		
1913	15.75	1000	1913	13.13	1010
1914	15.75	1000	1914	14.38	1106
1915	15.75	1000	1915	14.63	1125
1916	16.69	1060	1916	15.34	1180
1917	16.94	1076	1917	15.70	1208
1918	19.63	1246	1918	16.09	1238
1919	21.50	1365	1919	17.78	1368
Bookbinders and paper rulers, journeymen:			Butchers:[6]		
1913	15.00	1000	1913	14.26	1049
1914	16.25	1083	1914	14.54	1069
1915	16.25	1083	1915	14.54	1069
1916	16.25	1083	1916	15.15	1114
1917	17.50	1167	1917	15.87	1167
1918	17.50	1167	1918	15.87	1167
1919	18.90	1260	1919	17.19	1264
Bootmakers, male:[4]			Carpenters, journeymen:		
1913	14.00	1143	1913	16.50	1023
1914	14.00	1143	1914	18.00	1116
1915	14.00	1143	1915	18.00	1116
1916	15.75	1286	1916	18.00	1116
1917	15.75	1286	1917	18.50	1147
1918	15.75	1286	1918	20.00	1240
1919	18.00	1469	1919	21.75	1348

[1] New Zealand. Census and Statistics Office. Official yearbook, 1919. Twenty-eighth year of issue. Wellington, 1919. 968 pp. Maps.

[2] Classes of workers covered: Foremen, second hands, third hands; later—foremen, journeymen, and laborers.

[3] Classes of workers covered: Until 1916, first-class and "ordinary" boiler makers; later, only one class provided for.

[4] Includes adults of all classes.

[5] Laborers assisting tradesmen, and men on scaffold work.

[6] Classes covered: First and second shopmen, first small-goods men and general hands.

AVERAGE ACTUAL AND RELATIVE MINIMUM HOURLY RATES OF WAGES IN NEW ZEALAND, 1913 TO 1919, BY OCCUPATIONS—Continued.

[1d at par=2 cents; index number based on 1911=1000.]

Occupation and year.	Hourly rate.	Index number.
Coach builders, journeymen:	*Pence.*	
1913	15.75	1050
1914	16.50	1100
1915	16.50	1100
1916	16.50	1100
1917	18.00	1200
1918	18.00	1200
1919	22.00	1466
Coal miners:[7]		
1913	127.50	1024
1914	129.00	1036
1915	129.00	1036
1916	135.15	1086
1917	155.40	1248
1918	155.40	1248
1919	168.35	1352
Drivers:[8]		
1913	12.50	1058
1914	12.50	1058
1915	12.50	1058
1916	12.50	1058
1917	15.00	1270
1918	15.00	1270
1919	16.81	1423
Engineers (on shore), first-class:		
1913	16.50	1000
1914	16.50	1000
1915	16.50	1000
1916	16.69	1012
1917	17.14	1038
1918	19.88	1205
1919	21.50	1303
Fell mongers:[9]		
1913	12.60	1026
1914	13.94	1135
1915	13.94	1135
1916	15.80	1287
1917	16.05	1307
1918	17.11	1393
1919	21.50	1751
Flour-mill employees:[10]		
1913	12.58	1034
1914	13.00	1068
1915	13.00	1068
1916	15.00	1233
1917	15.00	1233
1918	15.00	1233
1919	19.17	1583
Freezing-works employees:[11]		
1913	14.06	1013
1914	14.75	1063
1915	15.25	1099
1916	15.75	1135
1917	16.94	1220
1918	17.81	1211
1919	22.00	1585
Furniture makers:[12]		
1913	16.25	1061
1914	16.25	1061
1915	16.25	1060
1916	18.00	1176
1917	18.00	1176
1918	19.80	1293
1919	22.00	1437
Grocers' assistants (adult workers):	*Pence.*	
1913	11.54	1117
1914	11.54	1117
1915	11.54	1117
1916	13.27	1285
1917	13.27	1285
1918	14.25	1379
1919	15.96	1545
Iron and brass molders:[13]		
1913	16.50	1128
1914	16.50	1128
1915	16.50	1128
1916	16.69	1141
1917	18.00	1230
1918	19.63	1342
1919	21.75	1487
Painters, journeymen:		
1913	15.38	1025
1914	16.50	1100
1915	16.50	1100
1916	16.88	1125
1917	17.25	1150
1918	17.25	1150
1919	20.50	1367
Plasterers, journeymen:		
1913	18.38	1004
1914	18.38	1004
1915	18.38	1004
1916	18.38	1004
1917	19.50	1006
1918	20.38	1114
1919	21.50	1175
Plumbers, first-grade journeymen:		
1913	16.75	1000
1914	18.00	1075
1915	18.00	1075
1916	18.00	1075
1917	18.00	1075
1918	20.00	1194
1919	21.50	1284
Seamen:[14]		
1913	1,720.00	1000
1914	1,960.00	1140
1915	1,960.00	1140
1916	2,260.00	1314
1917	2,520.00	1465
1918	2,520.00	1465
1919	2,840.00	1651
Slaughtermen:[15]		
1913	315	1050
1914	330	1100
1915	330	1100
1916	330	1100
1917	360	1200
1918	360	1200
1919	420	1400
Tailoresses, factory:[16]		
1913	7.33	1099
1914	7.33	1099
1915	7.33	1099
1916	7.88	1181
1917	7.88	1181
1918	8.07	1210
1919	9.55	1432

[7] Covers shift miners and truckers on day wages.
[8] Covers one-horse and two-horse drivers.
[9] Covers painters' trimmers, and felt classers, and general laborers not otherwise enumerated.
[10] Covers millers (flour, oat, and barley); storemen and packer men.
[11] Covers freezing-chamber hands, and general laborers not otherwise specified.
[12] Covers journeymen cabinetmakers, chair makers, carvers, upholsterers, etc.
[13] Covers journeymen (not including machine molders).
[14] Covers able seamen, ordinary seamen over 18 years of age, firemen and greasers. Rate of wages is for a month.
[15] Covers those killing sheep and lambs for export. Rate is per hundred "freezing" sheep slaughtered.
[16] Covers first-class coat machinists or journeymen.

AVERAGE ACTUAL AND RELATIVE MINIMUM HOURLY RATES OF WAGES IN NEW ZEALAND, 1913 TO 1919, BY OCCUPATIONS—Concluded.

[1d at par=2 cents; index number based on 1911=1000.]

Occupation and year.	Hourly rate.	Index number.	Occupation and year.	Hourly rate.	Index number.
Waterside workers:[17]	*Pence.*		Woolen-mill employees(male):[18]		
1913	17.17	1000	1913	12.71	1041
1914	19.50	1136	1914	12.71	1041
1915	19.50	1136	1915	13.42	1099
1916	22.37	1303	1916	13.42	1099
1917	22.37	1303	1917	15.46	1266
1918	24.33	1417	1918	15.46	1266
1919	26.33	1533	1919	19.00	1556

[17] Covers general-cargo workers, coal workers (main class), workers handling frozen meat in freezing chambers on board ship.
[18] Covers wool sorters, tuners, warpers, pattern weavers, spinners, and workers not otherwise classified.

Wages in Germany During the War.

Compiled by ALFRED MAYLANDER.

THE Bureau recently received four volumes containing the reports of the German factory and mine inspectors for the period of the war, i. e., the years 1914 to 1918.[1] These reports, comprising nearly 4,500 pages, contain a wealth of interesting information in text and table form on such subjects as wages, war bonuses, hours of labor, overtime work, woman and child labor, intensity of production, industrial accidents, safety devices, workmen's housing and nutrition, industrial diseases, etc. It is much to be regretted that these reports, like those of preceding years, do not contain a summary covering all of Germany. The reason why such a summary has never been compiled by the German statistical office, which publishes the reports of the factory inspectors, is to be found in the fact that each Federal State of Germany, down to the smallest principality, has its own independent factory inspection service. There are no common regulations for the individual State factory inspection services as to the method and form which the investigations to be made by the inspectors shall take. Thus it happens that one inspection district in reporting on wages bases its reports on average hourly or daily wages, another on average hourly or daily earnings, a third on weekly wages, a fourth on annual earnings, and so on. The individual reports are therefore not comparable and a summary covering all of Germany can not be compiled from them.

In spite of this disadvantage it has, however, been decided to publish in the MONTHLY LABOR REVIEW a series of articles on various subjects covered by the individual reports of the German factory inspectors. "Wages in Germany during the war" has been chosen as the subject for this the first article of the series. The data on wages here presented will supplement previous articles on wages in Germany published in the MONTHLY LABOR REVIEW, especially the article published in the issue of December, 1919 (pp. 254–258).

General Trend of Wages.

MOST of the inspectors' reports relating to wages are prefaced by a general statement on the trend of wages. They all agree that during the first two years of the war wages increased but slightly. The steadily rising cost of all foodstuffs and other necessaries of daily life was, however, bound to lead to a substantial increase of workers' wages. In addition, as is especially emphasized by the chief inspector of the district of Schleswig (vol. 1, p. 626), the workers became aware that many employers having contracts for the furnishing of war materials were reaping enormous profits. Under these conditions it was only natural that the workers made it their principal aim to

[1] Jahresberichte der Gewerbe—Aufsichstbeamten und Bergbehörden für die Jahre 1914–1918. Four volumes. Berlin, 1919 and 1920.

participate in the economic prosperity of industry by securing to themselves large wage increases.

Wage movements during the first two years of the war brought about a slow but steady increase of wages of all industrial workers. Beginning with the fall of 1917, however, the upward movement of wages took place by fits and starts. The chief inspector of the district of Marienwerder points out (vol. 1, p. 61) that, as State-owned establishments again and again had been granting wage increases, privately owned establishments were also forced generally to increase wages. Thus, in the fall of 1918 wages, generally speaking, had reached a level twice as high as that of prewar times.

In meeting wage demands of their workers most establishments endeavored to keep the basic wages at a low level, and in place of wage increases they granted cost-of-living bonuses in which the number of persons dependent on the individual workers were taken into consideration. The frequency and rate of wage increases varied greatly in the various States and inspection districts, not only in the individual industry groups but even within the same industry and occupational group. Thus, according to the report of the chief inspector of the district of Hildesheim (vol. 1, p. 671), wages in metal industries located in large cities in the first winter of the war rose 50 and 70 per cent, and in the fall of 1918 they were 100 to 120 per cent higher than prewar wages. In small towns and in rural districts wages in these industries were, however, much lower than in the large cities. Nearly all inspectors agree that this difference in wage rates is due to the fact that in the large cities the cost of living of workers is considerably higher than in the country, where a great many workers are self-providers with respect to food, i. e., own a small plot of land and some live stock, and where as a rule they can also purchase other necessaries much cheaper than the city dwellers.

On the whole, notwithstanding large wage increases, wages barely kept pace with the steadily rising cost of living. Excessive wage demands were not made until after the revolution. "A great many workers," says the report for the district of Erfurt (vol. 1, p. 596), "evidently see in the revolution merely a wage movement, and want of appreciation of the interdependence of all economic relations and of the special requirements of the wretched economic situation that has set in after the armistice makes them raise their wage demands higher and higher. At present the wage movement has taken a form which threatens to destroy all proportion between wages and labor performed." In a sugar factory, for instance, the wages computed per zentner (110 pounds) of beets were the following during the period 1913–14 to 1917–18 (1 pfennig at par being 0.238 cent):

	Pfennigs.
1913–14	6.32
1914–15	8.11
1915–16	12.15
1916–17	13.73
1917–18	19.40

For the season 1918–19 the estimated wages per zentner of beets in the district of Posen amount to from 65 to 75 pfennigs (15.5 to 17.9 cents, par), i. e., to 10 times the amount of the prewar wages (vol. 1, p. 340).

The relative increase of wages of female workers was, on the whole, even greater than that of male workers. The actual wages of women workers were, however, generally lower than those of men, even when women performed the same work as men (vol. 1, p. 686).

Rates of Wages in Various Industries.

OF THE numerous tables and graphic charts on wages contained in the reports of the German factory inspectors only a few that are typical can be reproduced here. Most of the tables show average hourly or daily wages. In a few instances weekly or yearly earnings are shown. Very few reports indicate the method used in the investigations. It must be assumed that pay rolls were made use of to obtain the data shown in the tables and charts.

The average hourly earnings of male skilled, semiskilled, and unskilled workers in a large locomotive, railroad car, and machinery construction works of Silesia are shown below in Chart A[1] for the period 1910 to 1919 as typical for the general development of wage conditions in Germany during the last 10 years (vol. 1, p. 409). The wage rates shown include the cost-of-living bonus.

The preceding chart shows that up to the end of 1916 the wages of skilled, semiskilled, and unskilled workers rose very slowly, those of unskilled workers having undergone the smallest increase. With the beginning of 1917 and the enactment of the auxiliary service law wages rose more rapidly, and in 1918 the wage curve rose spasmodically. At the beginning of 1910 skilled workers earned 55 pfennigs (13.1 cents, par) per hour, semiskilled workers 44 pfennigs (10.5 cents, par), and unskilled workers 34 pfennigs (8.1 cents, par). At the end of the first quarter of 1919 their hourly average earnings, inclusive of cost-of-living bonus, had risen to 1.85, 1.55, and 1.18 marks (44, 36.9, and 28.1 cents, par), or 236, 252, and 247 per cent, respectively.

Chart B, reproduced from the reports of the factory inspectors of Saxony, shows the development of hourly wage rates in the Government district of Leipzig for five different occupations during the period January 1, 1914, to February 15, 1919 (vol. 2, pt. 3, p. 286).

In illustrating the development of wage rates during the war Chart B uses a basis different from that used in Chart A. The latter shows average hourly earnings, while the former shows average hourly wages. The occupations covered by the former are those of toolmaker, metal turner, machinist, packer, and forewoman. The wage curves for the first three occupations indicate the large wage increases granted to highly skilled mechanics during the last two years of the war. Toolmaker's wages rose from 64 pfennigs (15.2 cents, par) on January 1, 1914, to 2.25 marks (53.6 cents, par) on February 15, 1919, those of metal turners from 63 pfennigs (15 cents, par) to 2.20 marks (52.4 cents, par), and those of machinists from 57 pfennigs (13.6 cents, par) to 2.10 marks (50 cents, par). The wage curve for packers, a semiskilled occupation, runs nearly parallel to those of the highly skilled occupations, rising from 43 pfennigs (10.2 cents, par) to 1.60 marks (38.1 cents, par). The rise in women workers' wages was less pronounced in the district of Leipzig than that in

[1] The charts are drawn on the logarithmic scale because the increases are more accurately shown than on the arithmetic scale.

Chart A.—Average Earnings Per Hour (Inclusive of Cost of Living Bonus) of Male Workers in a Large Locomotive, Railroad-car, and Machinery-construction Works of Silesia, 1910–1919.

[100 pfennigs=1 mark, at par=23.8 cents.]

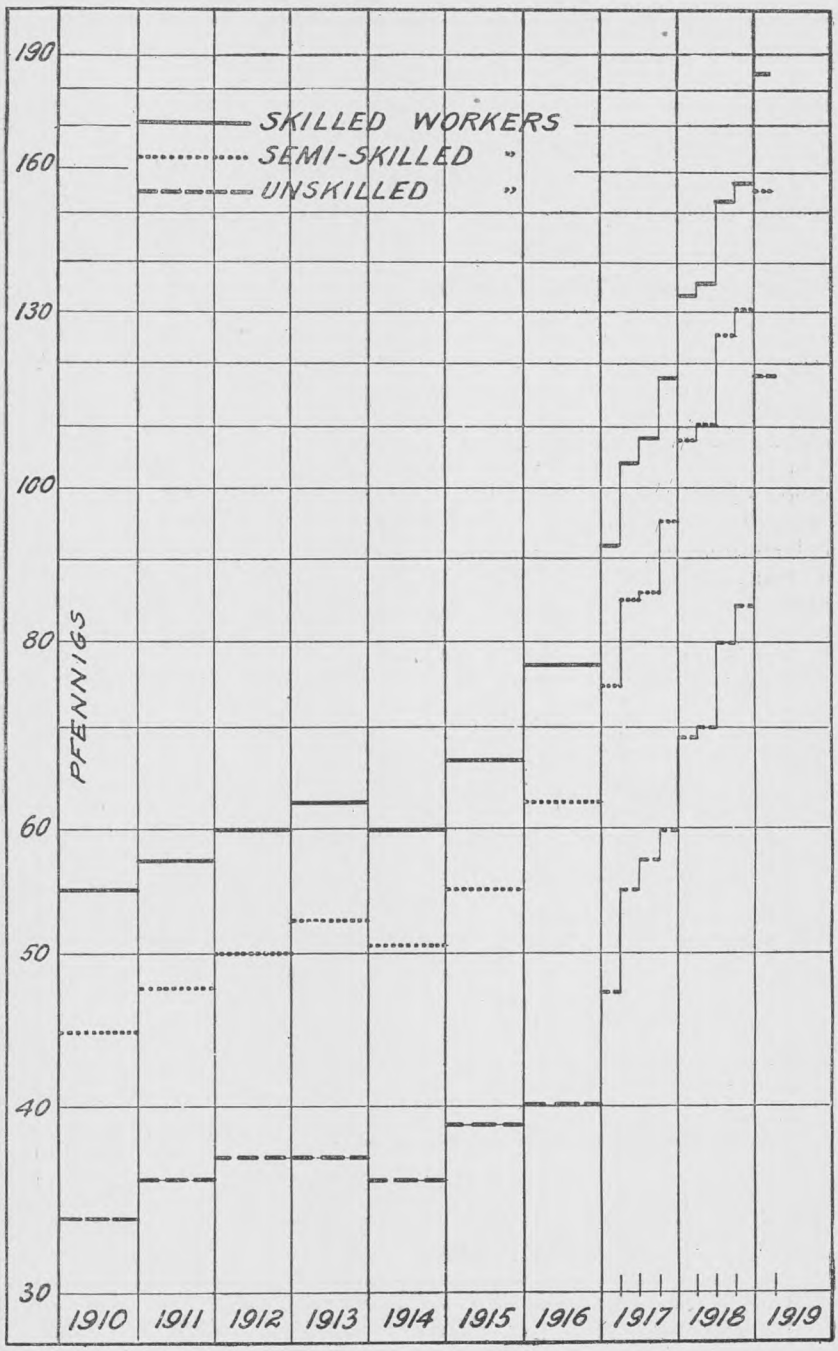
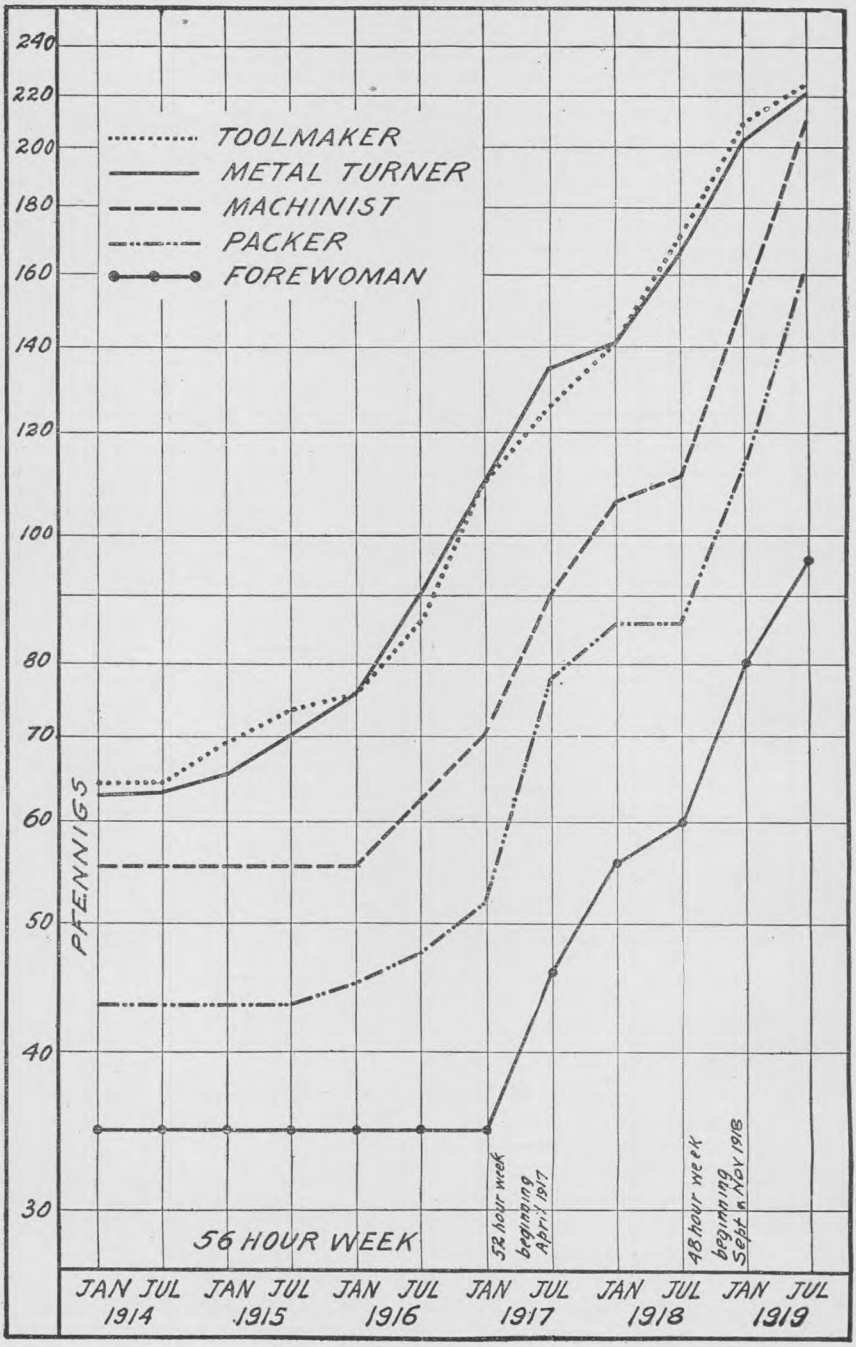


Chart B.—Trend of Hourly Wages of Various Industrial Occupations in the Government District of Leipzig, January 1, 1914, to February 15, 1919.

[100 pfennigs=1 mark, at par=23.8 cents.]



men's wages. The chart shows that a forewoman's wage rose from 35 to 95 pfennigs (8.3 to 22.6 cents, par) during the war. The large increase in workers' hourly wages during 1917 and 1918 is partly due to the shortening of the hours of labor. Up to 1917 the 56-hour week was generally in force in Germany. In April, 1917, the 52-hour week was introduced and in the fall of 1918 the 48-hour week. Wages had to be increased to make up for the curtailment of working hours.

A chart showing the trend of wages in metal industries in Tilsit (East Prussia), engaged in the productionof war materials, is affixed to the report of the inspector for the districts of Gumbinnen and Allenstein (vol. 1, p. 32). This chart, reproduced below as Chart C, shows wage curves for the five years 1914 to 1918 for machinist, turner, tinsmith, carpenter, and unskilled laborer. As in the two preceding charts the wage curves of these five occupations show a slow upward tendency in 1915. Beginning with 1916 this tendency becomes more pronounced. The greatest increase in wages falls in the last half of 1918.

The chief inspector for the district of Berlin, in reporting on wage conditions makes the following statement (vol. 1, p. 247):

> War conditions have brought about not only an enormous change in industrial activity but also a shifting of the labor forces according to whether the individual industry groups were more or less active. There was a great difference in this respect between establishments working on war contracts and those engaged in the production of articles for general consumption. The war department, in order to obtain quick delivery, did not hesitate in paying the most exorbitant prices demanded, and establishments which had been awarded contracts for war material outbid each other in trying to hold their skilled and reliable workmen and in attracting new ones. Factories engaged in production for general consumption on the other hand were glad if the orders on hand enabled them to keep busy their regular working force, and they were not in a position to pay high wages. Accordingly there developed during the war different wage rates which may be classified as exceptional wage rates, average wage rates for workers on war materials, average wage rates for workers producing articles for general consumption, and wage rates for female, juvenile, and home workers.
>
> Exceptional wage rates were paid in establishments working on war contracts to men on whose activity depended the output of entire groups of workers, or to those working in a supervisory capacity or possessing exceptional skill. Thus in meat-canning establishments many butchers on whose skill depended the proper distribution of the meat were paid as much as 50 marks ($11.90, par) per day. Fitters and machinists in ordnance and munition works, guide screw makers, tool makers, tinsmiths, and propeller makers earned up to 6 and 7 marks ($1.43 and $1.67, par) per hour. The weekly earnings of such skilled mechanics frequently ranged from 300 to 370 marks ($71.40 to $88.06, par). Manufacturers who adjusted their plants for the production of munitions and war materials but had no practical experience in these branches of industry frequently offered to efficient foremen annual salaries of from 25,000 to 40,000 marks ($5,950 to $9,520, par). Although such high earnings were encountered in numerous instances the men receiving these exceptionally high wages formed only a small fraction of the entire working force, and their salaries should not be taken as the general standard of wages in war industries.

The average earnings of workers in war industries were much lower. The following table shows the average hourly wages and weekly earnings during the period 1914 to 1918 of male and female workers in a large Berlin works producing war materials. This establishment employed before the war 12,000 workers, of whom 3,000 were women. In 1917 it employed 17,000 workers, 6,000 men and 11,000 women (vol. 1, p. 248).

Chart C.—Trend of hourly wages in metal-working establishments of Tilsit engaged in the production of war materials, 1914–1918.

[100 pfennigs=1 mark, at par=23.8 cents.]

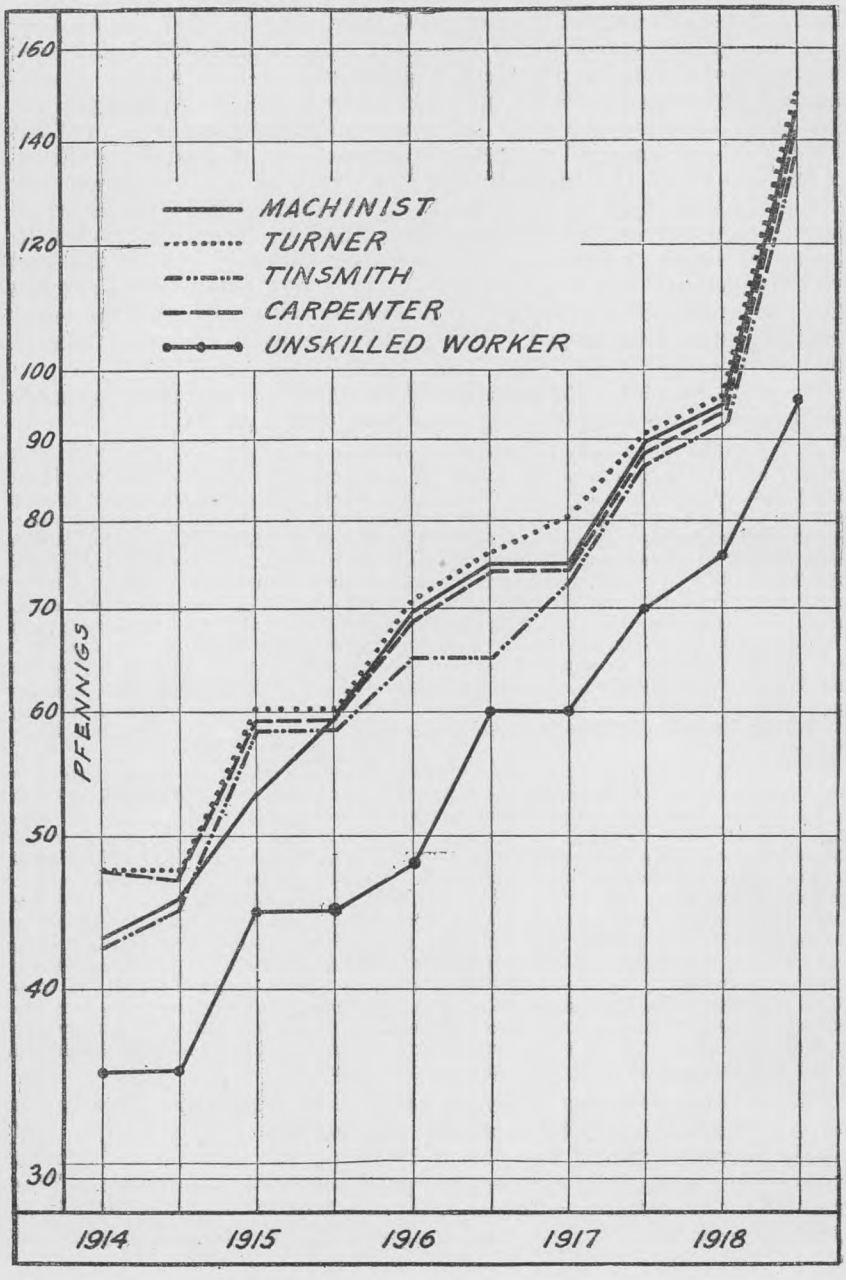


TABLE 1.—AVERAGE HOURLY WAGES AND WEEKLY EARNINGS OF MALE AND FEMALE WORKERS IN A LARGE BERLIN WORKS PRODUCING WAR MATERIALS, 1914 TO 1918.

[1 mark, at par=23.8 cents.]

Year.	Male workers.		Female workers.	
	Average hourly wages.	Average weekly earnings.	Average hourly wages.	Average weekly earnings.
	Marks.	*Marks.*	*Marks.*	*Marks.*
1914	0.667	33.50	0.377	17.40
1915	.711	34.70	.410	18.60
1916	.872	44.10	.463	21.90
1917	1.240	60.80	.590	26.90
1918	1.570	75.20	.760	45.00

According to the preceding table men's wages increased during the 5-year period on an average by about 135 per cent and women's wages by about 100 per cent.

In Table 2 are shown the average hourly wages of various classes of workers in another large munition works of Berlin employing about 5,000 persons (vol. 1, p. 249). The table makes possible a comparison of the wages paid in June, 1914, the last month before the outbreak of the war with those paid in April, 1916, March, 1918, and December, 1918, i. e., immediately after the revolution.

TABLE 2.—HOURLY WAGE RATES OF VARIOUS CLASSES OF WORKERS IN A BERLIN MUNITION WORKS, IN SPECIFIED MONTHS, JUNE, 1914, TO DECEMBER, 1918.

[1 mark, at par=23.8 cents.]

Class of workers.	June, 1914.	April, 1916.	March, 1918.	December, 1918.	Per cent of increase December, 1918, over June, 1914.
	Marks.	*Marks.*	*Marks.*	*Marks.*	
Juvenile workers	0.185	0.255	0.575	0.81	337
Watchmen	.402	.450	.750	.93	131
Female workers	.364	.600	1.000	1.12	208
Laborers, helpers	.461	.525	1.350	1.52	230
Crane men	.542	.700	1.450	1.70	214
Firemen	.558	.729	1.400	1.71	207
Packers	.595	.750	1.420	1.72	189
Engineers	.579	.750	1,350	1.84	218
Borers	.681	1.000	1.820	1.90	179
Welders	.758	1.000	1.780	1.94	156
Patternmakers	.834	1.033	1.970	2.13	156
Grinders and polishers	.757	.865	1.910	2.16	185
Planing-machine hands	.786	1.085	2.010	2.17	176
Armature winders	.652	.933	1.920	2.18	235
Masons	.665	.842	1.900	2.18	228
Assemblers	.564	.977	1.880	2.20	290
Turret-lathe hands	.748	1.050	1.980	2.25	198
Blacksmiths	.693	1.040	1.920	2.28	230
Tinsmiths	.773	.975	2.000	2.37	206
Turner-lathe hands	.806	1.355	2.200	2.40	198
Machinists	.729	1.002	1.900	2.42	232
Milling-machine hands	.679	1.000	1.960	2.49	267
Tool makers	.782	1.155	2.230	2.53	224
Millwrights	.706	1.175	2.250	2.61	270

Table 2 shows that wage increases in the Berlin munition works to which the table relates ranged between 131 and 337 per cent for the period June, 1914, to December, 1918. The largest increases were granted in the period March to December, 1918. The chief inspector of the Berlin district remarks as follows:

Generally speaking, it may be correctly assumed that in the munitions industry wages increased 170 to 250 per cent in the case of skilled workers, 120 to 275 per cent in that of semiskilled workers, 120 to 155 per cent in that of unskilled workers, and 130 to 170 per cent in that of female workers. In the fall of 1918 the average hourly wage of skilled workers was about 2.37 marks [56.4 cents, par], that of semiskilled workers 1.94 marks [46.1 cents, par], and that of female workers 90 pfennigs [21.4 cents, par].

In Berlin industries producing exclusively or chiefly articles for general consumption the upward tendency of wages was much less pronounced than in war industries. In paper and leather goods factories, laundries, cigar and cigarette factories, and similar industrial establishments wage increases during the war varied between 50 and 150 per cent. These establishments had great difficulty in holding their working force. The granting of wage increases involved a great sacrifice on the part of the owners or stockholders and the increases granted never kept pace with the steadily rising cost of living. Still, the greater part of the workers employed in peace industries remained loyal to their employers in spite of low wages and frequent curtailments of the working hours (vol. 1, p. 252).

The report of the chief inspector of the Government district of Oppeln (Silesia) contains a number of tables illustrating the development of wages in various industries in his district. The table relating to a large iron and steel mill (vol. 1, pp. 493, 494) is reproduced below as Table 3. It shows the average daily earnings of individual occupations in the various departments of this works for each of the six years 1913 to 1918 and at the end of 1918.

TABLE 3.—AVERAGE DAILY EARNINGS OF VARIOUS CLASSES OF WORKERS IN AN IRON AND STEEL WORKS IN THE GOVERNMENT DISTRICT OF OPPELN (SILESIA), 1913 TO 1918.

[1 mark, at par=23.8 cents.]

Department and occupation.	1913	1914	1915	1916	1917	1918	End of 1918.
Blast furnaces.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Blowers	5.57	5.70	5.74	6.53	7.31	9.75	15.00
Blowers' helpers, first	2.70	2.75	2.88	3.34	3.96	4.50	7.00
Blowers' helpers, second	2.25	2.27	2.37	2.47	3.33	3.88	5.00
Bottom fillers	3.62	3.71	5.50	5.87	7.38	9.00	14.00
Top fillers	3.65	4.24	5.06	5.27	6.33	7.75	15.00
Cinder men	3.45	3.52	3.77	4.45	5.38	8.50	13.00
Pig iron handlers and loaders	5.70	6.94	7.84	8.01	9.76	11.43	14.00
Blowing engineers	4.28	4.69	4.77	4.77	7.56	7.58	14.70
Assistant blowing engineers	2.85	3.12	3.15	3.29	5.04	5.50	9.80
Stockers, male	3.97	4.44	4.79	6.76	8.09	10.23	17.00
Stockers, female	1.70	2.22	3.30	3.52	4.10	4.35	10.00
Laborers, male	2.10	2.65	2.97	3.66	4.10	4.59	12.00
Laborers, female	1.70	2.24	3.34	3.58	4.13	4.30	7.00
Casting.							
Molders, first	7.45	7.97	7.99	8.04	9.65	14.56	15.00–17.00
Molders, second	6.34	6.86	6.86	6.89	6.93	7.88	11.00–15.00
Melters	4.11	4.27	5.46	5.58	9.43	12.69	16.00
Melters' helpers	3.78	3.96	4.27	4.90	6.70	10.16	14.50
Castings cleaners	4.41	4.41	4.56	5.45	7.98	11.71	13.00–14.00
Ladle men	9.75	9.87	9.90	9.93	9.93	15.55	17.75
Steel works.							
Blowers	7.30	7.50	7.98	8.96	10.51	12.86	16.00–17.00
Cupola melters	5.65	5.70	5.98	6.80	7.92	10.00	14.50
Charging machine operators	4.20	4.26	4.51	5.32	6.54	9.10	13.00
Gas makers	4.21	4.27	4.66	5.34	6.34	8.84	14.00
Ingot strippers, first	5.32	5.44	5.68	6.10	7.39	9.61	15.00
Ingot strippers, second	4.64	4.74	4.94	5.38	6.86	8.70	13.50
Steel pourers	6.95	7.02	7.29	7.99	8.45	11.04	15.50
Limestone millers	5.11	5.15	5.38	5.85	6.65	7.75	13.50
Limestone roasters	3.60	3.65	3.95	4.38	5.28	6.74	12.00
Puddling mill.							
Puddlers	7.19	7.00	6.94	7.36	8.80	10.20	16.00
Puddlers' helpers, first	5.35	5.02	5.22	5.41	6.60	7.80	14.00
Puddlers' helpers, second	4.80	4.74	4.70	4.88	6.00	7.10	12.50
Rollers	6.53	6.17	7.97	8.20	9.50	10.00	15.00
Roughers and catchers	5.42	5.28	6.43	7.10	7.50	8.50	13.00
Hook ups	3.63	3.60	4.74	4.90	6.00	7.00	12.50

TABLE 3.—AVERAGE DAILY EARNINGS OF VARIOUS CLASSES OF WORKERS IN AN IRON AND STEEL WORKS IN THE GOVERNMENT DISTRICT OF OPPELN (SILESIA), 1913 TO 1918—Concluded.

[1 mark, at par=23.8 cents.]

Department and occupation.	1913	1914	1915	1916	1917	1918	End of 1918.
	Marks.	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*	*Marks.*
Hotbed men	3.77	3.65	3.66	3.80	4.60	5.00	11.65
Hammermen	5.34	6.70	6.50	6.60	7.50	9.50	17.50
Ash men	3.50	3.80	4.20	4.90	4.90	6.20	10.00
Mechanical department.							
Bricklayers	.....	4.46	4.93	5.43	7.42	9.05	15.73
Bricklayers' helpers	.....	2.58	3.10	3.42	4.79	5.20	9.20
Machinists	.....	4.03	4.20	4.93	7.01	7.50	15.68
Machinists' helpers	.....	3.20	3.23	3.51	4.75	4.90	8.96
Brace fitters	.....	3.65	4.38	4.50	6.15	7.00	13.00
Boiler feeders	.....	3.60	4.00	4.09	5.35	6.60	13.00
Firemen	.....	3.10	3.41	3.52	5.01	5.90	11.00
Boiler makers	.....	3.60	4.06	4.45	6.31	7.00	16.00
Lathe hands	.....	4.16	4.90	5.37	6.53	8.15	16.00
Blacksmiths	.....	4.17	4.55	4.98	6.44	7.17	16.00
Blacksmiths' helpers	.....	3.27	3.48	3.88	5.05	6.30	11.04
Assemblers	.....	4.18	5.00	5.65	7.31	9.00	16.00
Engineers, stationary	.....	3.60	3.80	4.31	5.36	6.50	11.00
Switchmen	.....	3.26	3.31	3.55	4.82	5.60	8.71
Locomotive engineers	.....	4.40	4.55	4.75	6.28	7.70	14.50
Locomotive firemen	.....	3.20	3.32	3.91	5.20	6.40	12.40
Pattern makers	.....	4.20	4.28	4.44	6.12	7.53	16.00
Carpenters	.....	4.17	4.17	4.66	6.75	7.88	16.00
Watchmen	.....	3.04	3.10	3.20	3.98	4.90	8.00
Laborers	.....	.....	3.31	3.68	4.81	5.60	8.00
Juvenile workers	.....	.....	1.46	1.67	2.14	2.70	4.00
Hammer works.							
Knobblers	.....	.....	13.42	13.61	22.80	23.10	22.24
Hammermen	.....	9.71	10.48	10.46	16.81	18.66	20.75
Knobblers' helpers	.....	5.32	6.37	6.80	12.77	12.94	13.40
Shinglers' helpers	.....	.....	5.25	5.61	9.12	10.51	10.71
Forge heaters	.....	4.05	4.34	5.10	8.84	10.46	13.55

In the preceding table it seems incongruous that at the end of 1918 the earnings of some of the unskilled occupations, as, for instance, those of a stocker, were higher than those of some highly skilled occupations such as blower, puddler, roller, etc. The original report contains no explanatory text to this table. It can only be assumed that this anomaly is due to the fact that after the revolution a tendency set in to equalize the wages of unskilled workers doing very heavy work with the wages of highly skilled workers who perform work requiring less physical effort. This tendency has become apparent from numerous reports on wages in Germany received by this Bureau. Another reason may be that, owing to the large number of able-bodied German men killed and crippled in the war, men of strong physique are rather scarce in Germany, and consequently command high wages.

The report for the Government district of Magdeburg contains two tables on the movement of wages during the war. The first table relates to the three most important war industries of the district—the metal-working, machinery, and chemical industries (vol. 1, pp. 540, 541). The second table shows wages in various peace industries (vol. 1, p. 538). The two tables are reproduced below as Tables 4 and 5.

TABLE 4.—HOURLY WAGE RATES (INCLUSIVE OF COST-OF-LIVING BONUS) FOR VARIOUS OCCUPATIONS IN THE PRINCIPAL WAR INDUSTRIES OF THE GOVERNMENT DISTRICT OF MAGDEBURG, 1914–1918.

[1 pfennig, at par=0.238 cent.

Industry and occupation.	July 1, 1914.	Jan. 1, 1915.	July 1, 1915.	Jan. 1, 1916.	July 1, 1916.	Jan. 1, 1917.	July 1, 1917.	Jan. 1, 1918.	July 1, 1918.	Per cent of increase July 1, 1918, over July 1, 1914.
Metal-working and machinery industry.										
	Pfgs.	*Pfgs.*	*Pfgs.*	*Pfgs.*	*Pfgs.*	*Pfgs.*	*Pfgs.*	*Pfgs.*	*Pfgs.*	
Engineers	42	44	45	47	50	56	66	78	90	115
Firemen	41	42	43	46	49	57	65	75	84	105
Molders	61	62	66	69	73	85	96	107	119	95
Core makers	46	51	54	56	59	65	77	89	108	135
Pattern makers	51	54	58	60	66	74	86	101	117	130
Machinists	55	58	60	66	75	86	101	123	134	144
Assemblers	60	61	62	67	71	85	97	118	127	112
Lathe hands	58	63	71	76	80	92	114	129	145	150
Blacksmiths	52	54	58	63	66	75	87	107	122	135
Boiler makers	49	50	57	59	65	80	89	100	120	145
Machine hands	46	49	53	55	59	71	84	101	112	143
Laborers	39	41	43	44	46	52	60	70	76	95
Machine hands, female	25	27	28	31	34	42	50	57	63	152
Laborers, female	22	23	25	26	28	31	37	41	46	109
Juvenile laborers, 14 to 16 years	21	24	25	26	28	32	37	39	46	119
Apprentices:										
First year	6	6	6	6	7	8	9	11	12	100
Second year	9	9	10	10	11	12	13	15	17	89
Third year	12	12	13	14	15	18	20	21	25	108
Fourth year	13	14	14	17	18	24	25	26	29	123
Annealers	48	51	51	53	55	65	96	119	130	170
Picklers	56	64	70	69	72	88	132	142	161	188
Grinders	76	81	83	86	87	95	130	140	150	98
Melters	45	50	50	52	60	72	80	95	110	145
Polishers	53	52	54	57	65	76	83	85	100	89
Welders, female	.....	.....	25	30	32	35	40	45	65	160
Tinsmiths	55	52	58	62	66	105	110	180	200	264
Upholsterers	57	54	57	59	59	75	100	150	180	216
Welders, male	56	59	65	65	70	75	90	90	110	97
Painters	45	50	50	56	59	75	150	150	170	278
Chemical industry.										
Engineers	38	38	47	50	56	74	84	99	106	179
Firemen	38	38	47	51	55	74	84	97	107	181
Joiners	48	51	59	61	65	82	100	107	118	146
Machinists	46	50	60	62	67	83	97	110	121	163
Assemblers	.....	.....	78	78	91	127	137	158	177	128
Lathe hands, turners	49	49	62	63	73	89	111	125	134	173
Blacksmiths	47	50	61	61	71	83	99	105	118	151
Machine hands, male	41	42	43	44	48	55	67	76	93	127
Laborers, male	41	43	48	51	56	62	67	82	89	117
Machine hands, female	23	25	26	28	30	34	38	76	77	234
Laborers, female	21	22	24	26	31	40	45	51	58	176
Juvenile workers, 14 to 16 years	23	23	23	24	27	28	31	32	40	74
Apprentices:										
First year	10	10	10	10	10	12	14	15	25	150
Second year	.....	.....	10	10	13	20	24	25	31	210
Third year	.....	.....	14	14	17	23	27	30	41	193
Fourth year	.....	.....	19	19	24	27	35	37	55	190
Carpenters	44	47	50	52	57	65	75	92	93	111
Masons	45	47	51	54	64	79	95	101	110	144
Furnace workers	39	40	40	47	52	52	65	80	90	130
Picklers	40	40	40	45	50	55	70	70	90	125
Solderers	65	65	80	80	80	90	100	100	120	85
Electricians	50	55	55	60	65	75	110	110	130	160
Tinsmiths	44	47	56	61	77	99	109	127	135	206
Painters	43	46	52	58	73	88	108	121	128	198
Saddlers	43	43	44	44	47	85	88	106	104	142
Tool makers	.....	.....	82	82	117	143	176	197	199	143

TABLE 5.—AVERAGE HOURLY WAGES IN VARIOUS PEACE INDUSTRIES IN THE GOVERNMENT DISTRICT OF MAGDEBURG, 1914 AND 1918.

[1 pfennig, at par=0.238 cent.]

Industry.	1914	1918	Per cent of increase.
Stoneware industry:	*Pfennigs.*	*Pfennigs.*	
Male workers	40	83	108
Female workers	22	44	100
Potteries	25	50	100
Stone quarries	34	50	47
Woolen mills:			
Male workers	33	63	91
Female workers	25	52	108
Sugar mills:			
Male workers	40	80	100
Female workers	12	30	150
Shoe factories:			
Male machine hands	70	130	86
Female machine hands	38	74	95
Male unskilled workers	38	74	95
Female unskilled workers	30	54	80
Glove factories:			
Glove makers	52	105	102
Glove sewers, female	26	47	81
Building trades:			
Carpenters	50	110	120
Laborers	36	95	164
Printing establishments: Typesetters, hand	55	105	91

Table 4 shows the average daily wages inclusive of cost-of-living bonus but exclusive of extra pay for overtime, night, and Sunday work in 26 establishments of the metal-working and machinery industry and 18 establishments of the chemical industry. According to the inspectors' report, the actual wages varied greatly in the individual establishments according to the importance of the war materials produced by them and according to the location of the establishment in an urban or rural community. In a rural machinery works, for instance, machine hands were paid an average hourly wage of 70 pfennigs (16.66 cents, par) on July 1, 1918, while in an urban airplane factory the same class of workers earned 183 pfennigs (43.55 cents, par) per hour. The report says that the average increase of wages in the three war industries covered by Table 4 may be safely estimated at 145 per cent. In some of the large State-owned establishments included in the table married men were granted a special daily allowance of 1 mark (23.8 cents, par) and an additional allowance of 25 pfennigs (5.95 cents, par) for each child under 14 years of age. Workers living at a distance of more than 3 kilometers (1.86 mile) from their working place received an allowance for fare and a special bonus of 10 pfennigs (2.38 cents, par) for each hour of work.

In the peace industries covered by Table 5 the average wage increase during the war amounted to about 100 per cent of the prewar rate of pay.

Of the numerous tables showing the wage movement in the Government district of Schleswig two have been selected for reproduction in this article. In Table 6 are shown the hourly earnings in July, 1914, and October, 1918, of various classes of workers in a large shipyard at Kiel. In Table 7 are shown the shift rates of workers in a munitions factory.

TABLE 6.—AVERAGE HOURLY EARNINGS (INCLUSIVE OF PIECEWORK PREMIUMS) OF VARIOUS OCCUPATIONS IN A KIEL SHIPYARD, JULY, 1914, AND OCTOBER, 1918.

[1 pfennig, at par=0.238 cents.]

Occupation.	July, 1914.	October, 1918.	Per cent of increase.
	Pfennigs.	*Pfennigs.*	
Lathe hands	70.8	148	109
Drill, planer, and milling-machine hands	70.7	154	118
Laborers, machinery construction	52.4	114	118
Tool makers	66.0	156	136
Machinists	65.8	161	143
Boiler makers	72.4	151	109
Boiler makers' helpers	59.4	132	122
Pattern makers	77.5	180	132
Electricians	65.0	153	135
Molders	81.3	183	125
Core makers	69.3	178	157
Cleaners (castings)	54.7	117	114
Foundry workers	58.1	113	94
Engineers, firemen	57.4	102	77
Painters	72.2	138	91
Shipwrights	84.0	160	90
Shipwright's helpers	62.9	133	111
Riveters	73.0	134	84
Chippers and calkers	81.3	148	82
Rivet heaters	43.3	76	76
Carpenters, ship	67.8	137	102
Joiners, ship	73.7	143	94
Sawmill workers	72.0	128	78
Blacksmiths	70.1	151	115
Crane operators	55.6	101	81
Riggers, ship	77.6	156	101
Yard laborers	50.1	96	92
Plumbers	68.6	157	129

TABLE 7.—AVERAGE EARNINGS PER SHIFT (INCLUSIVE OF PIECEWORK BONUS) OF MUNITION WORKERS IN THE GOVERNMENT DISTRICT OF SCHLESWIG, 1915–1918.

[1 mark, at par=23.8 cents.]

Occupation.	1915		1916		1917		1918	
	Hours per shift.	Earnings.	Hours per shift.	Earnings.	Hours per shift.	Earnings.	Hours per shift.	Earnings.
		Marks.		*Marks.*		*Marks.*		*Marks.*
Mine fillers	9	10–15	6	12–20	9	15–28	8	15–16
Grenade fillers	9	7–12	6	8–14	9	9–16	8	8–17
Grenade fillers, female	9	4–6	6	4.3–7	9	5.5–10	8	6.5–12
Mine stoppers	9	10–15	6	14–20	9	19–39	9	19–30
Mine stoppers, female	9	4–6	6	4–6	9	7–12	9	7–12
Cartridge fillers, female	.....	.....	.....	.....	9	7.2–12	9	7.2–10

Wages in the Printing Trade, Netherlands.

THE Typographie Française, official organ of the Printers' Federation of France, in its issue of April 16, 1920 (p. 7), publishes a summary of a collective agreement recently signed by representatives of the trades, as follows:

From January 5, 1920, the hours of actual labor are fixed at 8½ per day from Monday to Friday, inclusive, and 5½ on Saturday, a total of 48 hours per week. From July 5, 1920, the hours of actual work are to be 8 per day for the first five working days and 5 on Saturday, a total of 45 per week. Not more than 10 hours of overtime are permitted in any week, or 52 hours in 13 weeks.

Night work is prohibited except for employees on the morning edition of daily papers, and in such instances on the condition that in each two-week period no employee is permitted to work more than 6 days or [and] 6 nights. After July 5 a night's work shall consist of 7 hours for 5 nights and 5 hours on Saturday or Sunday, or 40 hours per week.

Wages shall be paid for the five principal holidays and for six additional days of vacation.

The apprenticeship period runs from 14 to 18 years of age. At the end of the apprenticeship the employee is graded as a "young worker." and at the age of 24 years as a "full worker."

In the capital, Amsterdam, minimum wages are to be paid as follows: Apprentices are to begin with 4.50 florins ($1.81, par) per week. which is increased to 15.75 florins ($6.33, par) for the last year of apprenticeship. Up to 20 years of age wages are to be 22.95 florins ($9.23, par); from 20 to 22 years, 29.25 florins ($11.69, par); from 22 to 24 years, 33.75 florins ($13.47, par), and at 24 years, 38.25 florins ($15.38, par). The minimum for stereotypers is increased by 2.25 florins ($0.90, par), and machine compositors by 4.50 florins ($1.81, par).

The wage rate for extra hours is increased 25, 50, and 100 per cent for evening, night, and Sunday or holiday work. Employees may refuse Sunday work.

During the first 13 weeks of sickness the employer is required to pay half wages when the other half is assured by the union of which the sick person is a member.

The country is divided into 39 arbitration districts, in each of which a board consisting of three or four employers and an equal number of employees is organized for the settlement of labor disputes. For the entire country there is a superior commission consisting of five employers and five employees, and the decision of the latter is final.

The contract is for a period of three years. A salary commission is to be appointed each six months to decide if wages are sufficient. When the cost of living increases 3 per cent over that of January, 1920, wages also shall be increased. Whenever wages in the six trades—baking, tailoring, metal working, furniture making, carpentry, and cigar making—exceed those paid printers, the wages of the latter shall be increased also.

Regulations for the Eight-Hour Day in Spain.[1]

THE Minister of the Interior has approved certain regulations submitted by the Institute of Social Reform for the application of the 8-hour law in substance as follows:

The 8-hour day is obligatory for all laborers, salaried clerks, and employees of every class employed by industrial establishments in work done under its direction or other supervision.

If the nature of the work will not permit of a uniform distribution of hours (daily), or if the employers and employees by mutual consent agree, the weekly hours of work may be 48, without prejudice to the

[1] Estudios de Deusto. Bilbao. Enero-febrero, 1920. Núm. 75. pp. 45 to 48.

institution of any other plan more favorable to the laborers. The reduction of hours shall not work a corresponding decrease of pay, unless wages have been increased within the last two years for the purpose of compensating for a greater number of hours. In cases of urgency the parties may agree to overtime work, provided such extra hours do not exceed 50 per month or 120 per year. When sufficient laborers can not be secured and there are several establishments engaged in the same industry, the labor unions and employers' associations may sign an agreement for overtime work not exceeding 240 hours per year. Payment for overtime shall be at least 20 per cent above regular wages when the work exceeds 10 hours per day. For night and Sunday work payment shall be not less than 40 per cent above regular wages. Women shall be paid 50 per cent over regular wages for overtime work, and shall not be employed over 10 hours per day.

The employment of persons under 16 years of age in overtime work is prohibited. When establishments are closed because of holidays employers and employees may distribute the time lost among the other working days of the same week, or of the week preceding and the one following, with normal pay. The same provision is applicable to time lost by reason of force majeure, accident by waves or wind, etc. In no case shall such overtime exceed one hour per day or six per week.

Numerous exceptions are permitted, both as to classes of workers and as to industries, among which are domestics living with their employers; mines worked only a portion of the year; herdsmen; hotel and restaurant employees; textile workers; agricultural labor employed by the year and in horticulture during the three months of active work.

Printing trades.—The Sunday rest law has been made applicable to work in the printing trades. Hereafter no regular, extra, or supplemental periodical shall be published on the afternoon or night of Sunday, or on Monday morning. No periodical shall be distributed between 7 a. m. on Sunday and the same hour on Monday, and all work in printing establishments between these hours, as well as the use during this time of telegraph and telephone for notices for publication, is prohibited. Nor shall any notice intended for publication be published by means of transparencies or bulletin board between 6 a. m. on Sunday and 6 a. m. on Monday of each week.

MINIMUM WAGE.

Constitutionality of the Minimum Wage Law of the District of Columbia.

ON MAY 25, 1920, a suit was heard before Justice Bailey of the District Supreme Court involving the constitutionality of the minimum wage law. The suit was brought in consequence of a recent award fixing the minimum wage for women employed in hotels, restaurants, apartment houses, clubs, and hospitals at $16.50 a week, against which the employer may make a charge of 30 cents for each meal furnished and $2 a week for lodging when a room is provided. For part-time workers and for overtime work an hourly rate is established. The award was to become effective May 26.

Suit was brought by both the Children's Hospital of the District and a woman elevator operator. The first set forth that it had women in its employ at rates lower than those required by the award; that the terms of their employment were satisfactory to all concerned, and that the award would conflict with the constitutional right of these women to contract for their services at such rates as they pleased. The second claimed that as she was working for less than the weekly wage fixed by the minimum wage board, the award would result in depriving her of employment. In regard to this second case it was shown that the woman was a part-time worker and was already receiving more than the minimum required for the time she put in, so that the award would not affect her in any way. Practically, therefore, the hospital was the only plaintiff, and the case turned on its right to hire women at whatever rate it could get them for, or, as the counsel for the hospital put it, on the constitutional right of every woman to sell her services at whatever price she chose to accept.

Interference with the right of contract is the familiar argument against the constitutionality of minimum wage laws, and in this case the argument was strengthened by the fact that the award sets a price for board and lodging, as well as for services, thus interfering with the employer's power to fix his own price for his commodities, as well as with the woman's right to accept any wage the employer could succeed in establishing. In addition to this argument it was alleged that the effect of the law would be detrimental to women since the legal minimum would tend to become the actual maximum; that it would lead to the substitution of men for women; that it would degrade women to the position of wards, denying them the right to manage their own affairs, and so on.

Counsel for the minimum wage board dwelt on the need for minimum wage legislation, and laid stress on the facts that employers had united with employees and social workers to ask for the passage of the District law on the subject; that practically half of the women

industrially employed in the District, omitting Government employees, were already working under minimum wage awards, and that up to this point there had been no serious opposition to the law from either employers or employees. Admitting that the United States Supreme Court had not yet upheld the constitutionality of minimum wage legislation, they showed that State supreme courts had supported it, and maintained both that the presumption in favor of its constitutionality was strong, and that its practical workings had proved beneficial.

As the award would normally come into force on May 26, and as the court might naturally require some time before reaching a decision, the hospital asked for a temporary injunction to restrain the board from enforcing the award until a decision as to the constitutionality of the law should have been reached. The board objected to this measure, but offered to refrain from any action to enforce the award while the matter was under consideration, and on this understanding the injunction was refused.

On June 2 Justice Bailey handed down his decision, upholding the constitutionality of the law, but granting the plaintiffs leave, if they so desired, to amend their petition on the ground that the award was confiscatory. Up to the present date (June 14) the hospital has not taken this action, but the enforcement of the award is still postponed, awaiting their decision. The minimum wage board has announced that while no attempt will be made to exact penalties for failure to obey the award during this interregnum, employees will have a claim, if the award is upheld, for the total amount of wages which would have accrued to them under its terms from May 26.

Construction of Minnesota Minimum Wage Law.

ON JULY 5, 1919, the Minimum Wage Commission of Minnesota issued two orders, Nos. 10 and 11. These relate to "women and minors of ordinary ability in any occupation," No. 11 governing the employment of learners and apprentices. Interpretative notes are added; one relating particularly to telephone operators provides that where one is customarily on duty between 6 p. m. and 8 a. m., and is permitted to sleep while on duty, 12 hours on duty shall be construed as the equivalent of 8 hours of work in computing the number of hours of employment per week.

The law of Minnesota authorizes the commission to investigate wages paid to women and minors in any occupation in that State, either at its own discretion or at the request of not less than 100 persons engaged in any occupation in which women and minors are employed. Authority is given for fixing minimum wages in any occupation thus investigated, if it appears that one-sixth or more of the women or minors employed therein receive less than living wages. The rate may apply to the whole State or "any area of the State, if differences in the cost of living warrant this restriction."

In the rates fixed a basis was adopted of a weekly amount payable for work not to exceed 48 hours per week, different rates being fixed for cities having a population of 5,000 or more, and for

places of smaller population. The higher rate named was $11 per week, work in excess of 8 hours to be paid for at the rate of 23 cents for each additional hour worked. The lower rate was $10.25 per week, plus 21½ cents for each hour above 48.

A State law establishes a 10-hour maximum workday and 58-hour week for women in mercantile establishments, etc., and a 9-hour workday and a 54-hour week for women employed in mechanical or manufacturing establishments, or in telephone or telegraph establishments in cities of the first and second classes. The law creating the minimum wage commission gave it no authority to fix the hours of labor, but the commission found "that the number of hours per week which a person is customarily employed in the performance of work for her or his employer has a direct and substantial bearing on the minimum amount which said person needs and requires as a living wage, in that a person whose time and energy are not substantially consumed in the doing of the work for which she or he is employed may and can do for herself or himself many things which would and do reduce the money cost of living of such persons." The contention was made by certain employers that the commission had exceeded its powers in fixing the hours of labor, as well as in other provisions of the order, and a temporary injunction was granted against the commission to restrain it from enforcing the orders. The commission thereupon appealed and secured a reversal of the injunctive order, leaving the commission free to carry out its orders as made (G. O. Miller Telephone Co. *v.* Minimum Wage Commission, 177 N. W. 341).

The court admitted that the commission has no power to fix the hours of labor, and held that it did not attempt to do so. What it did was to take "48 hours a week as the basic period of labor upon which to compute a minimum wage." The point that there was a relation between the hours of daily work and the cost of living was upheld as a finding of the commission which could not be regarded as "fanciful."

The distinction between localities of larger and smaller sizes was contemplated by the act, and the line drawn by the commission could not be condemned as arbitrary classification; neither does the fact that the same rate is fixed for women as for minors invalidate the order unless it appears that the minimum for one or the other class is too high.

Every contention of the opponents of the orders was decided adversely to them, the constitutionality of the act having been previously upheld (Williams *v.* Evans, 139 Minn. 32, 165 N. W. 495, 166 N. W. 504). The present opinion establishes the power and status of the commission, and would seem to remove all doubt as to the validity of method and legal status. Indeed it would appear to be no longer worth while to contest the constitutionality of legislation of this type in view of the uniformity with which the laws have been sustained by the courts of the various States, and, by an equally divided bench, by the Supreme Court of the United States. That this is the case appears from the recent action of Judge Bailey of the Supreme Court of the District of Columbia before whom an action was recently brought attacking the validity of an order of the minimum wage board of the District fixing a rate of $16.50 per week for women employed in hotels, restaurants, boarding houses and the

like. The case was disposed of by Judge Bailey by saying that if it was only a matter of constitutionality that was involved, the case would be dismissed, leaving, however, opportunity to plead further if the plaintiffs desired so to do.

Recent Minimum Wage Orders in Massachusetts.

Manufacture of Women's Clothing.

A PUBLIC hearing was held on the 24th of April by the division of minimum wage, Department of Labor and Industries of Massachusetts, to adjust the rates for women and girls employed in the manufacture of women's clothing, including those in cloak, suit, skirt, dress, and waist shops. The rates take effect July 1, 1920, and require payment to experienced workers of not less than $15.25 per week; to learners and apprentices, on reaching the age of 18 years, not less than $12 per week; and to all others, not less than $10 per week. An experienced worker is one who is 18 years of age and has been employed in this industry for at least 1½ years, a year's work consisting of not less than 35 weeks.

This order is based on a finding "that the cost of living for a self-supporting girl in the occupation in Massachusetts under present conditions is $15.25 per week." Employee members of the wage board found $15.73 as the minimum cost, all the others agreeing on the rate named. However, the conclusion to fix the rate at $15.25 was reached without a dissenting vote, and this rate marks the highest minimum for any occupation in this State, being an advance of 25 cents above the rate established for the men's clothing industry. It is about 70 per cent in advance of the rates in effect since February 1, 1917, for the industries affected, which were $8.75 per week for experienced workers and $7 and $6 per week for apprentices and minors, respectively. It is of interest to note in this connection that a recent amendment of the law authorizes the minimum wage commission, now division of minimum wage, to reconvene a wage board or establish a new wage board for the purpose of revising an established rate, not only on the petition of employers and employees as formerly, but also "if in its opinion such action is necessary to meet changes in the cost of living," when it may proceed on its own motion without any such petition.

Paper Box Workers.

THE seventeenth order issued under the minimum wage law of Massachusetts relates to the manufacture of paper boxes. This decree, like the foregoing, is based upon a unanimous determination of the board concerned and becomes effective on the same date, July 1, 1920. The rate fixed marks a slight advance above that fixed for the clothing industry, being $15.50 per week for a female employee of ordinary ability, who has had not less than nine months' experience. Learners or apprentices 16 years of age shall receive not less than $11 per week, and all others not less than $9. These rates contemplate a full week's work as limited by the laws of the State.

The amount fixed as a minimum wage corresponds exactly with the itemized budget of living costs adopted by the board; and in submitting its determination, the board calls attention to the fact that the present is a time of high costs, and recommends that the rate be revised from time to time to meet changes in the cost of living, "taking as a basis the index number for retail food prices furnished by the Federal Bureau of Labor Statistics." Another statement of the wage board is that both employers and employees recognize the fact that the cost of living can be reduced only by the cooperation of all parties to secure a maximum production, and that the rate fixed only defines a minimum living wage.

COOPERATION.

Elements of Success and Possibilities of Saving in Cooperative Stores.

By FLORENCE E. PARKER.

OF LATE years the cooperative movement has made great progress. All over the country organization work is going on and week by week the number of cooperative stores increases. Everywhere consumers, unable to make ends meet and realizing that increases in wages are ineffective if immediately absorbed by new increases in living costs, are turning to cooperation as a "way out." It is therefore desirable that these prospective cooperators understand the difficulties to be faced, know the elements that experience has shown determine the success of the association, and have some idea as to what saving the cooperative venture may be reasonably expected to make for them. Much of the work of organizing new societies is being done by the wholesale societies. There are now five district societies and a national society. The associations organized by the wholesales will of course be advised on all the above points. The Cooperative League of America also makes it part of its business to furnish advice and information for societies in process of organization. Nevertheless there are doubtless many societies being started more or less independently, to which it is the hope in this article to be of service.

Organizing the Society.

THERE are certain factors which should be considered before the enterprise is started. Care should be taken that the prospective cooperators be thoroughly familiarized with cooperative principles and ideals. This can be done through informal talks either in groups or at their homes and through the distribution of cooperative literature. The buying club has been found to be a very effective preliminary to the cooperative store as a means of inculcating cooperative spirit. Under the club plan a small membership fee is charged, members pool their orders, paying for them in advance, and a member is delegated to make the purchase. The value of this form of cooperation is that experience in buying and collective activity is acquired without the expense and financial responsibility entailed in the operation of a store.

A common tie, such as residence in the same neighborhood, common religious beliefs, nationality, occupation, or trade-union membership has been found to be a factor making for the success of the society.

Too often in the enthusiasm attending the organization of the society false hopes are held out, with the result that when benefits

fail to materialize at once members either withdraw in disgust or, if they do remain, do so under protest and form an element of discontent in the society. The members should thoroughly understand beforehand what difficulties they are likely to encounter. Emerson P. Harris, himself an experienced cooperator, the manager of a successful cooperative store, and the author of an authoritative book on the subject of cooperation, states as his opinion that "obstacles should be hunted for." The members who, having fully weighed the advantages and obstacles to be expected, still feel that the benefits of cooperation will be worth the struggle to secure them, will be doubly valiant in their efforts to make the society a success and so secure these benefits. And when the obstacles do arise they will in a measure have anticipated them and will be braced for the shock.

The number of members and amount of capital necessary for organizing the society will probably differ with the local conditions. The prices prevailing in the community will help to determine the amount of capital necessary for the successful operation of the store. In a community where prices are high a larger amount of capital will be required than in one where the cost of living is low. The Central States Cooperative Society is of the opinion that 50 members, each contributing at least $50 in share capital will, if they know each other and the cooperative principles well and are absolutely loyal to the store, be enough to undertake the establishment of a cooperative store. Cooperators in other parts of the country find this number and amount altogether too small. The Cooperative League of America states, on the basis of its experience, that 100 members each subscribing $10 is the minimum advisable; a membership of 200, each subscribing $25 is preferable. It is the practice of the Pacific Cooperative League, before establishing a store, to require in "the average community" at least 200 members, each subscribing from $25 to $50. The Tri-State Cooperative Association requires a membership of 100 and a capital of $5,000.

Lack of capital often acts as a severe handicap and where there is a doubt as to whether the amount of capital subscribed is sufficient, it would be advisable for the cooperators to wait until more members and more capital have been secured. "Better be safe than sorry" is a good motto for prospective cooperative societies to follow in establishing their store. This for two reasons: Failure of the enterprise will almost invariably turn all but the most enthusiastic members against the idea of cooperation; and every failure hurts not only the society concerned but the movement as a whole.

The society should know, with some precision, how much trade it can depend upon from each member. The member who subscribes his amount of share capital to the society and then goes elsewhere to make his purchases is of little help to the society. His trade is as necessary as his money. Though the society should make every effort continually to attract nonmembers, in the hope of making them members, it seems to be conceded that outside trade should not be relied upon to any great extent at the time of establishing the store. If the society is not reasonably sure of enough business from its own members to insure its success it should not undertake any business enterprise.

The question of the location of the store will be the next to be decided. The store should not be situated so far from the homes of the members as to be inconvenient, nor too close to other cooperative stores. It should, however, be in a location sufficiently conspicuous to attact nonmembers—the potential new members. An investigation made in 1916 by the United States Bureau of Markets brought out the fact that location has a great deal to do with the success of the store.[1] It was pointed out, however, that the best location does not always mean the most expensive or the most central location, but that the most important factor to be considered in choosing the site of the store is the type of trade.

The selection of the store manager is a matter of such prime importance that Emerson P. Harris even advises the society, before opening the business, to wait until the manager is "in sight." He should preferably be a sincere cooperator, in addition to possessing integrity and merchandising ability.

In the purchase of stock, care should be taken to buy such goods and in such amounts as can be "turned over" quickly, so that the capital of the society will not be tied up in stock which can not be sold.

Running the Store.

AFTER the store is in operation the society should take care that the Rochdale principles are strictly followed. All of these have been tried and found to be essential to success. The new society would do well not to attempt any experiments in the way of departure from these, since by doing so it will destroy the cooperative character of its undertaking and invite failure.

The points to be borne in mind in the operation of the store are the following:

1. A limited rate of interest should be paid on capital. This rate should be fixed and should never vary with the profits.

2. Each member should have only one vote, regardless of the amount of stock he owns.

3. Goods should be sold for cash. The advantage of this is obvious: The society not having its money tied up in credit extended to members is enabled to take advantage of bargains and buy in the best market; it also can obtain the discount allowed for cash payment.

4. Goods should be sold at current prices. Price cutting at once attracts the attention and arouses the enmity and active opposition of the private dealer. The practice of sale at cost, plus a certain percentage estimated as sufficient to cover the expense of handling, management, etc., is even more to be deplored. It is next to impossible to foretell accurately what this expense will be, and the slightest miscalculation leads to the failure of the store, there being in the very nature of the plan no reserve to cover the losses. It is to be noted that, after all, the practical effect of price cutting and sale at cost is obtained through the return of the dividend.

5. From the savings—the surplus over the cost price of the goods, plus the expenses of management—provision should be made, after deduction of interest on capital stock, for (*a*) depreciation, (*b*)

[1] U. S. Bureau of Markets, Bul. 394, A survey of typical cooperative stores in the United States, p. 7.

reserve, and (*c*) educational fund. The remainder should be disposed of in one of two ways: It should either be returned to the members as a dividend, in proportion to their purchases, or be turned into a common fund to be used, in the interests of the whole society, for various social purposes. The latter plan has been practiced with conspicuous success in Belgium,[2] where the cooperative societies have become the center of the social life of the communities, and provide their members not only with recreation but with sick benefits, unemployment insurance, old-age pensions, medical and hospital care, etc.

Care should be taken to install a good system of accounts, to be kept by a competent person, and audits should be made regularly by an expert accountant. Lack of proper bookkeeping and auditing has been one of the greatest points of weakness in cooperative societies. In the investigation mentioned before, the United States Bureau of Markets found that "the precariousness of the cooperative mercantile business is due to inefficient accounting and auditing more than to any other single cause." This situation need no longer exist, since there are now available to cooperative societies simple systems of business practice and accounts, adapted particularly for use in cooperative stores, by the United States Bureau of Markets and the Cooperative League of America.[3] Further, several of the cooperative organization bureaus and nearly all of the cooperative wholesale societies perform auditing service for their members. Several of the wholesale societies will even do the bookkeeping for their retail societies.

The business undertaken by the cooperative society will vary according to the needs and preferences of the members. Some form of family supplies is most usually dealt in. Thus, cooperative societies may undertake to supply their members with any or all of such things as bakery goods, groceries, milk, dry goods, clothing, fuel, lumber, farm supplies, etc. Some kinds of goods seem to be better adapted than others for cooperative enterprise. Cooperative bakeries, for instance, usually succeed. With dry goods and clothing, societies are not always so successful, particularly in a city with department stores, since these are lines in which a good deal of variety in stock is required to satisfy the tastes of the customers. Food is the commodity most generally sold. Being the largest item in the family budget, it is the first to present itself as an avenue through which expenditure may be cut. The grocery business is, however, one which offers peculiar difficulties, particularly in urban districts. The field is already overcrowded; the New York State Food Investigating Commission found that in 1912 New York City had one store to about every 250 persons. Mr. A. B. Ross, market expert of the Pennsylvania Council of National Defense, stated in the Annals of the American Academy of Political and Social Science for March, 1919, that for the country as a whole there is one grocer to every 293 people, and in large cities one to every 40 or 50 families. The city cooperative store has an additional handicap in that it must face the competition not only of the individual groceryman but of the highly organized chain store.

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[2] For a description of the Belgian cooperative movement see p. 142-145.

[3] U. S. Bureau of Markets, Bul. 381, Business Practice and Accounts for Cooperative Stores. Cooperative League of America (2 West Thirteenth Street, New York City), pamphlet No. 5, A system of accounts for a cooperative store; price, 5 cents.

Realizing the difficulties attendant on the sale of food, one society now organizing in the District of Columbia plans to make its first efforts in the undertaking of the "little industries." It plans to begin with such things as shoe repairing, cleaning and pressing of clothes, etc., in which a relatively small amount of capital is needed but in which the per cent of profit is high, and then, as the success of the business becomes established and the membership increases gradually to undertake the broader lines of business.

Possible Avenues of Economy.

Dealer's Profit.

COOPERATORS starting a grocery store should not expect too much in the way of "profits." Prices are the result, not so much of a high rate of profit made by any one middleman, as of moderate rates made by a number of middlemen, but bulking large in the aggregate. The members of the retail store must remember that they can save the profits of only one of these—the retailer. As said before, except in exceptional cases, the rate of profit of the individual retail grocer is not high. The Graduate School of Business Administration of Harvard University found in an investigation made by it in 1919,[4] that while the net profit made by 175 grocery stores ranged up to 19.88 per cent on net sales, the common rate was 2 per cent. Of the stores reporting, only 14 per cent had a net profit of over 6 per cent, while 23 per cent operated at a loss. The dealer's profit the cooperative store may reasonably be expected to save for its members, if it is properly managed. The Harvard report states, however, that the net profit is "primarily the result of good management."

Operating Expense.

The operating expense of the average grocery store is admittedly high. In the Harvard study this expense absorbed from 6.57 to 25.35 per cent of the sales. Some of this expense is undoubtedly due to the very smallness of the business since, other things being equal, the smaller the business the relatively greater the rate of the overhead expense. The factor of high rate of overhead expense due to small amount of business will also operate in the case of the cooperative store, and the ratio can be reduced only in the same way that the private dealer can reduce his—by increasing the size of the business.

Certain items entering into the private dealer's operating expense can, however, be eliminated or reduced by the cooperative society. One of these is advertising. The average small dealer does not advertise very extensively, it is true—in the Harvard study the amount spent ranged from 0.01 to 3 per cent—but the cooperative society may not advertise at all. Delivery service is another item on which the cooperative store may save. Delivery service was found to cost from 0.65 to 6.17 per cent of sales. It might not be advisable for the cooperative store to eliminate this service altogether, but delivery expense could be cut down by a system of routing, whereby only one or two deliveries would be made each day. A flat charge

[4] Harvard University, Graduate School of Business Administration, Bul. 18, Operating expenses in retail grocery stores in 1919.

of 5 to 10 cents might be made for the delivery of each order, irrespective of size. The charge would make the delivery system self-supporting and at the same time provide an incentive to the members to carry purchases whenever possible and so save the charge.

Some saving might be made on sales force. The typical grocery store probably employs more salesmen than are needed all the time, in order to have them on hand during the "rush" hours and on Saturdays. An appeal to members of the society to distribute their purchases as much as possible over the week would be probably effective, particularly if they are made to see that it is to their interest to do so, that every saving effected by the store is a saving to each member. Convenient arrangement of the merchandise would do much to save the time of such salesmen as are employed. Then also customers can be made to wait on themselves to some extent. By having canned and packaged goods and such other commodities as rice, beans, sugar, etc., which may be weighed out and wrapped beforehand, labeled and marked with the price, the customer may held herself to these as she is now doing in the new "self-service" stores.

Rent may be economized on to some extent, also. Losses from bad debts, which in the private stores ranged from 0.01 to 1.45 per cent of net sales, the cooperative store will avoid altogether by conforming to the Rochdale principle of cash sales. The other items entering into the operating expense—heat, light, telephone, insurance, and taxes—will probably be the same as in the private business.

Affiliation With Cooperative Wholesale Society.

The position of the retail cooperative society will be strengthened financially by affiliation with a cooperative wholesale society. Each section of the country now has its wholesale society. By affiliation with the wholesale, the retail store not only receives the advantage of the wholesale's experience and advice and has its accounting supervised and its wholesale purchasing done by specialists, but will receive its share of the savings made by the wholesale. By affiliation the society will also be aiding the cooperative movement as a whole, since the best hope of the movement lies in combination.

Direct Trading.

The cooperative society may find it to its advantage to get into communication with farmers' cooperative organizations in the vicinity. It is stated that under a system of direct trading now in force between the farmers' unions in Kansas and Nebraska and the cooperative stores of those States the saving made by the elimination of the middlemen is divided equally between the farmers' association and the cooperative stores.

Conclusion.

SOCIAL activities, such as clubs, reading rooms, entertainments, etc., organization and enlistment of the interest of the woman members, and educational work all help to make the society successful. The Cooperative League of America warns societies

against being content just to "keep going." It reminds them that cooperation is more than the running of a grocery store. The society should aim gradually to fill all the needs of its members.

One thing is certain, if the members look upon the cooperative society as a money saver and nothing else, the enterprise is bound to fail in its wider and final purpose. On the other hand there may social vision without practicality. To be truly successful the cooperative society must combine ideals with sound business sense.

Progress of Cooperation in Various Countries.[1]

Belgium.

THOUGH in Belgium, as in most other countries, the first cooperative efforts were failures, the movement has grown and now embraces various types of societies—contractors' and workingmen's productive societies, dockers' societies, credit societies, consumers' societies, cooperative drug stores, housing associations, cooperative dairies, insurance societies, and agricultural societies. Unfortunately, figures are not available for all phases of the movement. The following figures, published in 1910 by the Belgian Ministry of Industry and Labor, show the relative extent of each of the various classes of societies (exclusive of agricultural societies) at the end of 1908:

EXTENT AND OPERATIONS OF BELGIAN COOPERATIVE SOCIETIES AT THE END OF 1908, BY CLASS OF SOCIETY.

Class of society.	Number of societies.	Membership.		Business.		Share capital.	
		Number of societies reporting.	Number of members.	Number of societies reporting.	Amount of business.	Number of societies reporting.	Amount of capital.
Industrial societies:							
Contractors' productive societies	84	70	5,305	65	$2,272,206	71	$680,751
Workers' productive societies	26	23	2,325	20	310,736	23	48,264
Dockers' societies	29	28	890	15	504,307	20	679,128
Credit societies	45	34	24,000	33	129,097,174	35	1,171,002
Societies for purchase of raw materials	82	74	5,686	75	1,871,398	73	233,760
Consumers' societies:							
Distributive societies	394	379	250,106	376	11,136,817	375	1,117,090
Cooperative drug stores	6	2	100	6	206,315	6	12,513
Housing societies	24	24	4,229	20	702,926	21	59,529
Insurance societies	66	60	10,897	50	414,833	56	455,040
Miscellaneous societies	189	137	21,162	122	1,567,529	131	584,823
Total	945	831	324,700	782	148,084,241	811	5,041,899

[1] The data on which this article is based were compiled from the Yearbook of International Cooperation, 1913; Commerce Reports, May 15, 1920; The People's Yearbook, 1920; Cooperation in Many Lands, by L. Smith-Gordon and C. O'Brien; The Cooperative Store in Canada, 1916, by H. Michell; Cooperation, the Hope of the Consumer, by Emerson P. Harris; and the International Cooperative Bulletin, issues of April and May, 1911, February, March, April, May, July, and August, 1912, March, 1913, February, March, April, May, and August, 1914, April, 1915, July, 1916, June and July, 1917, January, September, and November, 1918 February, March, April, and May, 1919.

Comparable figures do not exist for years later than 1908. In 1910, however, there were in Belgium 1,132 societies of all kinds, of which 436 were distributive societies; these numbers had by 1911 increased to 1,224 and 466, respectively. In 1910 there are reported to have been 666 cooperative dairies with 57,400 members; in 1911 while the number of dairies had increased to 675, the total membership had decreased to 57,374. These 675 dairies did a business of approximately 40,000,000 francs ($7,720,000 par).

The Belgian cooperative movement, unlike that in most countries, is greatly influenced by politics and religion. Practically the whole movement is divided between Socialist and Catholic societies, the Socialists being strong in urban districts and the Catholics among the peasants.

Though in general less successful than the Socialist societies, the Catholic societies are very powerful among the agriculturists. Indeed, the statement has been made that the cooperative movement in agriculture in Belgium is largely dependent on the Boerenbond, a league composed entirely of Catholic agricultural associations. The Boerenbond in 1911 had a membership of 547 societies with 46,899 members. The significance of this is increased by the fact that membership is limited to one person per family. In 1912, the membership had increased to 50,614. The Boerenbond issues cattle insurance and also has affiliated with it a fire insurance society.

The greater number of the consumers' societies in the country are socialistic; only workingmen are admitted to membership and these must declare their adherence to the Socialist Party. It is the policy of these socialist societies not to return dividends on purchases, but to use them in various social activities. In practice, however, a small fraction of the savings is returned to members, though not in cash but in the form of orders entitling the holder to a certain amount in trade. It is reported that the "Belgian socialist cooperator willingly pays for his goods a price higher than the current one, in order to benefit his society; and it is part of the machinery that bread, for example, should be paid for each week in advance, in order to provide abundant working capital for the society and to avoid the necessity of paying interest."

Most of the Socialist societies are members of the Union of Belgian Workingmen's Distributive Societies. The following table shows the growth of the Union during the period 1904–5 to 1911–12:

DEVELOPMENT OF THE UNION OF BELGIAN WORKINGMEN'S DISTRIBUTIVE SOCIETIES, 1904–5 TO 1911–12.[1]

Year.	Number of societies.	Number of members.	Number of employees.	Share capital.	Amount of business.	Net profit.
1904–5	168	103,349	1,735	$285,498	$5,243,527	$611,271
1905–6	161	119,581	1,752	322,172	5,484,458	590,978
1906–7	162	126,993	1,809	329,924	6,534,610	680,059
1907–8	166	134,694	2,093	377,674	7,611,921	748,190
1908–9	174	140,730	2,128	378,083	7,913,970	750,502
1909–10	199	148,042	2,223	365,468	8,342,332	787,162
1910–11	201	157,478	2,304	372,720	8,671,475	820,293
1911–12	205	170,748	2,437	385,202	9,181,702	988,992

[1] Up to 1908–9 figures for share capital, amount of business, and net profit were obtainable only in British pounds sterling; for the remaining years the reports were given in francs. In order to make the figures comparable conversions have been made into United States money on the basis of 1 franc=19.3 cents, £1=$4.8665.

The Union of Belgian Workingmen's Societies established its wholesale society in 1901. The operations of the wholesale society for the years 1901–1910 are shown in the following table:

OPERATIONS OF THE FEDERATION OF BELGIAN COOPERATIVE SOCIETIES (WHOLESALE), 1901–1910.[1]

Year.	Number of affiliated societies.	Share capital.	Reserve fund.	Amount of business.	Net profits.
1901	66	$1,434	$1,096	$148,486	$1,809
1902	86	3,345	1,206	233,808	1,818
1903	92	5,280	1,467	286,715	2,359
1904	95	6,934	1,556	310,436	4,754
1905	93	10,096	2,744	428,038	4,624
1906	101	12,352	3,667	466,360	5,197
1907	102	12,909	4,712	539,666	4,627
1908	106	13,763	.....	578,154	5,165
1909	107	14,201	4,825	621,817	1,737
1910	108	18,723	4,825	865,113	500

[1] In making conversions into United States money the par value of the franc, 19.3 cents, has been used.

For the years since 1910 the only figures available are those showing the amount of business done by the wholesale. These are given in the following statement:

	Amount of business.
1911	$911,070
1912	1,267,044
1913	2,229,330
1915	[1] 386,000
1918–19	[2] 675,500

Owing to the general unsettled condition of Belgium during the war period, and the destruction of some parts of Belgium, detailed figures showing the operations of the Union of Belgian Workingmen's Distributive Societies and the wholesale society have not been published, the Union being unable to secure them.

The cooperative movement shared the misfortunes of the country. In the invaded parts of the country many of the cooperative societies, particularly those in Flanders, were destroyed. Taking the country as a whole, however, it is stated that the "losses have been relatively small."

One effect of the war was to hasten the amalgamation of small societies. The existence of small societies with overlapping territories, leading to rivalry and competition, had been one bad feature of the Belgian cooperative movement. The difficulty of securing supplies, and the common misery of the populace under the German occupation, tended to draw the people together. Association was found to be the most effective means of combating high prices and speculation and of securing supplies. By November, 1918, all the societies in Liège, some 62 in number, had amalgamated into one society, the Cooperative Union. By this amalgamation the purchasing power of approximately 17,000 families, representing on the 1913 basis an expenditure of 17,000,000 francs ($3,281,000, par), was pooled. The same process has been going on in the Sambre and Meuse district, in the Charleroi Valley, and in central Belgium.

[1] Approximate amount. [2] Average per month.

In the uninvaded parts of the country the cooperative movement made great increases in membership. The "Vooruit," a society of Ghent, enrolled more than 5,000 new members between 1914 and November, 1918, while the "Maison du Peuple," at Brussels, added approximately 12,000 families to its membership.

Unfortunately the financial position of the societies has been greatly weakened during the war. During 1914–15 the greater part of the capital of the societies had to be refunded to members thrown out of work through the stoppage of industry, and large amounts of goods were advanced to members on credit. At the end of 1918 many societies had no supplies of any kind and were obliged to close their stores. Appeal was made to fellow cooperators in other countries, to which the societies of both England and France responded. Considerable effort has been made to reestablish the cooperative movement and the prediction is confidently made that in two or three years the Belgian cooperators will have a powerful organization.

The Belgian cooperative societies are notable for their interest in the social side of the lives of their members. In some places the societies are the center of the entire social life of the community. The greater part of the savings of the society, instead of being returned to members in the form of dividend, go into a general fund and are used for various social purposes, as the payment of sickness insurance, maternity benefits and pensions for members and employees, and the maintenance of clubhouses where members find music, dancing, lectures, plays, books, newspapers, food, and soft drinks. The societies even organize walking trips for members. By these means the cooperative society comes to acquire a place in the lives of its members far stronger than a mere trading center would have. This fact alone may justify the confidence the leaders of the movement have in the ability of the Belgian cooperative movement to recover.

Canada.

THE history of cooperation in Canada, as well as in the United States, has been that of failure.

It is reported that during the last 55 years about 80 cooperative stores have been started in the various Provinces of the Dominion, and that nearly 40 of these have either failed or gone out of business. The chief reason for the failure of the stores is stated to be the failure to build up a reserve fund. Thus an unexpected loss was fatal to the enterprise. During the period 1896–1900 the only surviving store in Nova Scotia was that of the Stellarton society. In 1903 a new growth began and since that time the progress of the movement has been "slow but steady."

The first store was established in 1861. Curiously enough, however, this store, established by the Union Association of Stellarton, has been in business ever since and in 1916 was still doing business. The success of the store, it is stated, has been due to the ability of the manager, a man trained in cooperative methods in England. When this store opened it had 30 members and a capital of $1,000. On March 3, 1914, it had 202 members, a capital of $16,148.76 and a net profit for the year of $45,264.38. The rate of dividend paid has varied from year to year, ranging from 3 to 12 per cent.

The movement has taken root in Nova Scotia and Ontario. Very little has been done in western Canada, although there is a vigorous movement in Alberta and British Columbia and the society in Nanaimo is said to carry on the largest business of any store in Canada. The miners of Canada have been very active in cooperative work. Many of these were Englishmen, imbued with the cooperative idea before coming to Canada.

In March, 1909, the Cooperative Union of Canada was organized. It is a federation of cooperative societies organized on the Rochdale plan. In November, 1915, 22 cooperative associations were affiliated with the union, distributed, according to Provinces, as follows:

Nova Scotia	4
Quebec	2
Ontario	7
Manitoba	2
Saskatchewan	1
Alberta	3
British Columbia	3

By 1918 the number affiliated had declined to 15; the reason is not stated. Thirteen of these societies had during that year a business of $1,264,246, a share capital of $146,522, and a net profit of $91,079. Two of the societies had no surplus.

The best known of the cooperative societies in Canada is the British Canadian Cooperative Society located in the mining town of Sydney Mines, Nova Scotia. This society was started in 1906 after the failure of an earlier venture. The original members were British miners, well grounded in the principles of cooperation. The rule of the society has been that absolutely no credit shall be given. The society has had a rapid growth. Its sales have increased from $16,913 in 1906 to $675,204 in 1918, its membership from 88 to 1,550, the share and loan capital from $1,710 to $88,692, and the amount paid in dividend on purchases from $598 to $71,029. During the 12 years the society has done an aggregate business of $2,561,628, and has returned in dividend $262,026, besides accumulating a reserve fund of $12,900. The store deals in groceries, meats, dry goods, and bakery goods.

The Canadian Cooperative Union has recently been working for the passage of uniform cooperative legislation for the whole of the Dominion of Canada.

Hungary.

THE cooperative societies play an important part in the economic life of Hungary. The movement, however, differs from that of other countries in one great respect; whereas in nearly all other countries the movement is a distinctly working-class movement, in Hungary it flourishes chiefly among the upper classes, and the founder of the movement in Hungary was a nobleman—Count Alexander Karolyi. Much assistance has been given by the Government. It is stated that there is hardly a society in Hungary which does not owe its origin in some measure to Governmental assistance.

Societies representative of the various forms taken by cooperation—credit, distributive (consumers'), insurance, agricultural, marketing—are all found in the country. Up to about 1910, while friendly relations existed among the various branches of the movement, there was no direct contact. About 1910, however, the

National Union of Hungarian Cooperative Societies was formed, to embrace all phases of cooperative effort. The following statement shows the membership of this union, and gives an indication of the relative extent of the various types of cooperative enterprise in 1916:

Membership of National Union of Hungarian Cooperative Societies.

	Number of member societies.
National Central Credit Society	2,425
Union of Distributive Societies ("Hangya")	1,386
Central Organization of Christian Societies	470
Hungarian Mutual Insurance Co	800
Union of Raiffeisen Societies of Siebenburger:	
Raiffeisen societies	184
Distributive societies	59
Others	9
Union of Serbian Agricultural Societies	367
Central Organ of Fruit Selling Societies and Cooperative Distilleries ("Fructus")	300
Miscellaneous societies	72
	6,072

Consumers' societies.—The consumers' wholesale society, the "Hangya," (meaning "ant") was founded in 1898. A peculiar feature in connection with this society is that it was not the result of the combination of existing retail societies. On the contrary, the retail societies have been established by the wholesale society. At the time of the establishment of the Hangya, in order to obtain sufficient capital it was necessary to offer two kinds of stock—ordinary and "foundation" shares, the former of 100 kronen each to be subscribed by the retail societies, and the latter at 1,000 kronen each to be taken by individual cooperators. There can be no doubt that the holders of these "foundation" shares have greatly influenced the management of the Hangya.

This wholesale society supplies its retail members with foodstuffs, clothing, household utensils, agricultural implements, etc. It also distributes pamphlets on agriculture, facilitates the purchase of selected seeds by small farmers, and places agricultural machinery at their disposal. It plans to establish model farms and to undertake soil and manure testing. It exercises a good deal of supervision over its retail societies, especially in regard to the auditing of their accounts. For this purpose it maintains a large corps of traveling auditors.

The following table shows the development of the Hangya during the period 1901 to 1918:

OPERATIONS OF THE HUNGARIAN UNION OF DISTRIBUTIVE SOCIETIES, "HANGYA," 1901 TO 1918.[1]

Year.	Number of member societies.	Membership.	Capital.	Reserve fund.	Amount of business.	Net profit.	Amount returned in dividend.
1901	171	30,564	$17,558	$68	$416,962	$754	(2)
1902	246	42,238	19,602	248	594,784	1,226	(2)
1903	383	64,293	25,938	779	934,193	4,905	(2)
1904	485	87,996	130,364	3,893	1,373,930	8,171	(2)
1905	570	99,972	137,333	13,626	1,550,564	10,954	(2)
1906	676	110,420	144,428	28,810	1,963,399	15,256	(2)
1907	798	128,123	276,154	17,534	2,547,924	19,617	(2)
1908	842	136,459	287,588	36,762	2,560,373	20,882	(2)
1909	910	148,271	290,462	27,267	3,335,728	23,958	(2)
1910	992	156,563	311,271	33,131	3,886,825	28,561	(2)
1911	1,091	(2)	396,581	40,879	4,831,400	33,999	$6,090
1912	1,195	(2)	432,715	60,900	5,123,142	37,744	7,105
1913	1,276	(2)	(2)	75,110	5,580,226	42,281	10,150
1914	(2)	(2)	(2)	(2)	6,134,642	(2)	(2)
1915	1,307	(2)	(2)	(2)	9,351,059	89,250	115,710
1916	1,386	(2)	(2)	153,914	11,687,346	153,914	175,595
1917	(2)	(2)	1,323,540	507,500	17,834,951	370,232	(2)
1918	2,140	(2)	(2)	(2)	25,735,351	242,658	(2)

[1] Up to 1910 figures for the last five columns of the table were available only in British pounds sterling; for the remaining years they are reported in kronen. In order to make the figures comparable, conversions have been made into United States money on the basis £ 1=$4.8665, 1 franc=19.3 cents.
[2] Figures not available.

It is evident from the above table that the Hangya prospered during the war. During the period 1913 to 1918 its business increased 361 per cent and the amount of savings 474 per cent. The number of affiliated societies rose from 1,276 to 2,140, an increase of nearly 68 per cent. An evidence of its prosperity is shown by the fact that in 1916 the Hangya placed at the disposal of the Government for the establishment of a University of Political Economy 1,000,000 kronen ($203,000, par).

In the following table are shown for certain years the operations of the retail societies belonging to the Hangya:

OPERATIONS OF MEMBERS OF THE HANGYA, 1901, 1905, 1910, 1912, AND 1916.

Year.	Paid-up share capital.	Reserve fund.	Amount of business.	Net profit.
1901	$117,687	$12,926	$881,259	$22,601
1905	426,335	181,410	3,571,379	71,521
1910	714,957	453,008	7,758,042	90,597
1912	771,400	954,100	10,846,216	(1)
1916	1,626,988	1,621,887	21,777,595	(1)

[1] Figures not reported.

Most of the members of the Hangya are also members of the Farmers' Union. The Hangya also manages about 80 grocery stores belonging to credit societies in Ruthenia. These stores were started at the request of the Government as a measure of relief for the poorer classes. They were not successful, and their management was finally taken over by the Hangya, though they are still the property of the credit societies.

During the war the cooperative societies experienced a good deal of financial difficulty due to the fact that because of the moratorium the banks refused to honor checks or issue credit. The Hangya came to the assistance of the societies, however, and with this help they were enabled to continue their operation. Some societies were nevertheless compelled to close their doors because all their employees were called to the colors. To some extent women were put in the places of the mobilized workers. At one time during the war 526 women were acting as managers of societies and warehouses. Difficulty in securing supplies from the distributing agencies of the Government was also experienced by the societies. In some instances societies were unable to secure any supplies whatever.

Two new enterprises were started by the Hangya during the war period. One of these was the Hangya Industrial Joint Stock Co., established on April 25, 1915. The authorized capital of this company was placed at 4,000,000 kronen ($812,000, par), later increased to 10,000,000 kronen ($2,030,000, par), and the majority of the shares are held by the Hangya. This company was organized to undertake cooperative production to supply not only cooperative societies but the open market. This company now operates establishments manufacturing wine, rum, soap, chemicals, brooms, brushes, preserves, flour, cheese, and matches. It also runs several farms, and pig-fattening establishments.

The other enterprise was the Cooperative Unions Trading Co., established in September, 1917. The shares of this company are all held by the National Central Credit Society, the Hangya, and the Hungarian Agriculturalists' Cooperative Society. The object of the company is the collection of produce and raw materials, such as corn, hay, straw, wine, hides, etc., for inland consumption, domestic industry, and export. It will also import foodstuffs and raw material. It has organized a special department whose purpose is the promotion of increase of production.

The policy of the Hangya is stated to be to "hold aloof from all politics, and utilize all means in [its] power with a view to the social and economic reconstruction of the nations." The Hangya has, however, had various relations with the Government. An interesting, and, to Americans, somewhat peculiar arrangement was one entered into in 1911, when the Ministry of Agriculture borrowed 700,000 kronen ($142,100, par) from the Hangya.

The membership of the Hangya was greatly increased by the amalgamation with it of the other union of consumers' societies, the Central Organization of Christian Distributive Societies. That the present membership of the Hangya will, however, be adversely affected by the proposed changes in the boundaries of Hungary is shown by a statement made by the general manager of the Hangya, quoted in United States Commerce Reports, May 15, 1920. According to this statement, of 2,388 societies now belonging to the Hangya, only 1,088 remain within the proposed boundaries.

Credit societies.—There are now about 2,400 credit societies affiliated with the National Central Credit Society. This branch of the movement, it is stated, made no progress during the war. Now, however, the national society is endeavoring to found a cooperative credit society in every village, the object being to increase the savings of the

people, and, through the central society, to put the funds thus accumulated at the disposal of the consumers' societies.

Cooperative distilleries.—Since Hungary is a large producer of wines and various liquors it is not surprising that a good many cooperative distilleries exist. This branch of the movement received a great impetus when, in the summer of 1916, a law was passed permitting only large distilleries to manufacture alcohol. Small farmers who had been doing their own distilling therefore found themselves compelled either to cease or to unite and form cooperative distilleries. As a result, there were at the end of 1916, 350 cooperative distilleries, though this number was later reduced to 300, through amalgamation carried on "with the aid of the State." A central cooperative organization called the "Fructus" was organized, to which all distilleries, cooperative, commercial, and governmental, were required to affiliate.

EMPLOYMENT AND UNEMPLOYMENT.

Employment in Selected Industries in May, 1920.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in May, 1920, from representative establishments in 13 manufacturing industries and in coal mining. Comparing the figures for May of this year with those of identical establishments for May, 1919, it appears that in 13 industries there was an increase in the number of people employed and in 1 a decrease. The largest increases are: 54.4 per cent in men's ready-made clothing, 24 per cent in woolen and 22.7 per cent in paper making. Cigar manufacturing shows a decrease of 7.5 per cent.

All of the 14 industries show an increase in the total amount of the pay roll for May, 1920, as compared with May, 1919. The most important increases are: 145.7, 77, 66.1, and 55.1 per cent which occur in men's ready-made clothing, paper making, woolen, and hosiery and underwear, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MAY, 1919, AND MAY, 1920.

Industry.	Establishments reporting for May, both years.	Period of pay roll.	Number on pay roll—			Amount of pay roll—		
			May, 1919.	May, 1920.	Per cent of increase (+) or decrease (−).	May, 1919.	May, 1920.	Per cent of increase.
Iron and steel	112	½ mo.	174,251	174,883	+ 0.4	$10,056,438	$13,399,616	33.2
Automobile manufacturing	39	1 wk.	67,779	79,833	+17.8	1,913,611	2,748,766	43.6
Car building and repairing	48	½ mo.	53,085	60,652	+14.3	2,937,420	3,818,732	30.0
Cotton manufacturing	54	1 wk.	52,007	53,104	+ 2.1	830,599	1,133,061	36.4
Cotton finishing	16	do.	10,865	12,266	+12.9	209,856	289,815	38.1
Hosiery and underwear	63	do.	26,419	30,183	+14.2	388,330	602,423	55.1
Woolen	49	do.	40,960	50,798	+24.0	779,333	1,294,607	66.1
Silk	44	2 wks.	13,944	14,583	+ 4.6	528,333	693,916	31.3
Men's ready-made clothing	44	1 wk.	22,705	35,064	+54.4	490,959	1,206,283	145.7
Leather manufacturing	31	do.	16,284	16,715	+ 2.6	364,396	441,103	21.1
Boots and shoes	72	do.	59,296	62,877	+ 6.0	1,229,186	1,599,908	30.2
Paper making	58	do.	27,248	33,424	+22.7	563,717	997,978	77.0
Cigar manufacturing	50	do.	15,287	14,137	− 7.5	252,205	324,715	28.8
Coal mining (bituminous)	66	½ mo.	16,546	16,931	+ 2.3	827,046	1,075,562	30.0

In comparison of the reports of the same industries for May, 1920, with those for April, 1920, 4 show an increase in the number of persons on the pay roll and 10 a decrease. The greatest increase, 17.7 per cent, appears in car building and repairing. The 10 decreases range from 6.8 per cent in cigar manufacturing to 0.5 per cent in cotton manufacturing.

Seven of the 14 industries reporting show an increase and seven a decrease in the total amount of the pay roll in May, 1920, compared

with April, 1920. Increases of 19.2 per cent and 12 per cent are shown, respectively, in car building and repairing and paper making. The most important decreases are 4.4 per cent in coal mining and 4.2 per cent in iron and steel. The decreases below last month are reported as due mainly to poor transportation caused by the railroad strike.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN APRIL AND MAY, 1920.

Industry.	Establishments reporting for April and May.	Period of pay roll.	Number on pay roll—			Amount of pay roll—		
			April, 1920.	May, 1920.	Per cent of increase (+) or decrease (−).	April, 1920.	May, 1920.	Per cent of increase (+) or decrease (−).
Iron and steel	112	½ mo..	186,117	173,869	− 6.6	$13,845,833	$13,272,453	− 4.2
Automobile manufacturing	40	1 wk..	75,596	73,503	− 2.8	2,372,421	2,515,782	+ 6.0
Car building and repairing	45	½ mo..	49,484	58,228	+17.7	3,077,932	3,667,745	+19.2
Cotton manufacturing	53	1 wk..	52,553	52,317	− .5	1,113,194	1,120,395	+ .6
Cotton finishing	17	...do...	12,795	12,497	− 2.3	302,463	295,750	− 2.2
Hosiery and underwear	64	...do...	32,246	31,439	− 2.5	665,168	644,460	− 3.1
Woolen	49	...do...	51,119	50,798	− .6	1,285,160	1,294,607	+ .7
Silk	44	2 wks.	14,847	14,758	− .6	703,300	700,676	− .4
Men's ready-made clothing	45	1 wk..	34,865	35,174	+ .9	1,180,436	1,209,809	+ 2.5
Leather manufacturing	30	...do...	16,385	16,156	− 1.4	432,040	428,707	− .8
Boots and shoes	68	...do...	61,491	60,075	− 2.3	1,540,271	1,525,285	− 1.0
Paper making	58	...do...	33,077	33,424	+ 1.0	891,258	997,978	+12.0
Cigar manufacturing	51	...do...	15,517	14,471	− 6.8	325,481	330,091	+ 1.4
Coal mining (bituminous)	82	½ mo..	21,733	21,899	+ .8	1,436,706	1,373,635	− 4.4

In addition to the data presented in the above tables as to the number of employees on the pay roll, 102 plants in the iron and steel industry reported 142,877 employees as actually working on the last full day of the pay period reported for May, 1920, as against 131,082 for the reported pay-roll period in May, 1919, an increase of 9 per cent. Figures given by 101 establishments in this industry show that 142,063 employees were actually working on the last full day of the pay period reported for in May, 1920, as against 153,918 for the period in April, 1920, a decrease of 7.7 per cent.

Changes in Wage Rates.

DURING the period April 15, 1920 to May 15, 1920, there were establishments in 12 of the 13 industries which reported increases in wage rates. 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.

Iron and steel.—Three establishments reported an increase of 15 per cent, affecting 33.3 per cent of the employees in one firm, 25 per cent in the second firm, and the rolling-mill men in the other. Fifty per cent of the men in one mill received increases ranging from 12 to 15 per cent, while half of the force in another mill were given increases ranging from 6 to 15 per cent. One concern gave an increase of 12¾ per cent to 77 per cent of the employees. One mill reported increases of 6, 12, and 12¾ per cent, affecting all the men. Two firms gave an increase of 12 per cent affecting 30 per cent of the force in

the first firm and 2 per cent in the second firm. Forty-four per cent of the employees in one establishment received an increase of 11.2 per cent, while 90 per cent of the employees in another establishment received an increase of 11¾ per cent. Three concerns reported an increase of 11 per cent affecting 50 per cent of the employees in the first concern, 40 per cent of the employees in the second, and 20 per cent in the third. The entire force in one firm received an increase of 10 per cent. Four establishments gave an increase of 6 per cent to 99 per cent of the employees while all of the men in another establishment received an increase of 2.5 per cent.

Automobiles.—Two establishments granted an increase of 10 per cent, affecting 52 per cent of the force in one plant and 15 per cent of the force in the other plant. An increase of 8.3 per cent, affecting 3 per cent of the employees, was reported by one concern. One establishment gave an increase of 8 per cent, affecting 60 per cent of the employees while another establishment gave a 7 per cent increase, but failed to state the number of employees affected. A wage increase of 5.7 per cent, affecting 40 per cent of the force, was reported by one concern. Three per cent of the men in one plant received an increase of 1 per cent.

Car building and repairing.—Three establishments granted an increase of 10 per cent, affecting 15 per cent of the men in the first shop, 6 per cent in the second shop, and 4 per cent in the third. Thirty-five per cent of the employees in one concern were given an increase of 8 per cent.

Cotton manufacturing.—All the employees in one establishment received an increase of 17 per cent while the entire force in two other establishments were given an increase of about 10 per cent. An increase of 8 per cent, affecting all the employees, was reported by one mill and another mill gave the entire force an increase of 7 per cent. Two plants reported a 5 per cent increase, affecting all the men, while another plant gave a 5 per cent bonus to the full-time workers.

Cotton finishing.—One concern gave a 20 per cent increase to 6 per cent of the employees while 10 per cent of the force in another concern were given an increase of 15 per cent.

Hosiery and underwear.—An increase of 10 per cent was granted to all the employees in one plant while the entire force in another plant received an increase of 6 per cent. One establishment reported an increase but failed to give any further data.

Silk.—Six mills granted an increase of $2 a week per person.

Men's ready-made clothing.—All of the employees in one firm received an increase of 25 per cent.

Leather.—One establishment gave an increase of 13¾ per cent to the day workers, and an increase of 12½ per cent to the pieceworkers. One concern reported a 10 per cent increase but made no further statement. In one establishment 5 per cent of the employees received increases ranging from 4 to 10 per cent and 10 per cent of the employees received increases ranging from 2 to 7 per cent. Ninety-nine per cent of the force in one firm were given an increase of 50 cents per day. One establishment gave a bonus to all full-time workers.

Boots and shoes.—One establishment gave an increase of 18.2 per cent to 3⅝ per cent of the employees. Two per cent of the men in one factory were granted an increase of 12 per cent while two-thirds of the men in another factory received an increase of 6.8 per cent.

Paper.—One establishment gave an increase of 21.6 per cent to 15 per cent of the employees. Six mills granted an increase of 20 per cent, affecting the entire force in 3 mills, 93 per cent of the force in the fourth mill, the shop force in the fifth, while the sixth failed to state the percentage of employees affected. All the mill employees in one establishment received an increase of 15 per cent while another establishment granted a general increase ranging from 10 to 15 per cent. Seven firms reported an increase of 10 per cent, affecting all the employees in the first five firms, 90 per cent of the employees in the sixth firm and 80 per cent in the seventh. An increase of 7.1 per cent, affecting 13 per cent of the men, was reported by one concern. All the employees in one establishment received an increase of about 5 per cent, while two establishments reported a general increase but gave no further data.

Cigar manufacturing.—All the employees in one establishment received an increase of 15 per cent. An increase of 12 per cent, affecting 30 per cent of the men was reported by one concern. Sixty-seven per cent of the force in one factory received an increase of 10¼ per cent while 60 per cent of the force in another factory received an increase of about 9 per cent. In one firm all the departments except the office were given an increase of 6.5 per cent while 4 per cent of the force in another firm were given an increase of 5 per cent.

Report of Employment Exchanges in the United Kingdom.

AS REPORTED by the British Labor Gazette for May, 1920, the operations of the employment exchanges for the five weeks ending April 9, 1920, are summarized as follows: The average daily number of applications from workpeople, of vacancies notified, and of vacancies filled during the five weeks was 10,611, 5,495, and 3,257, respectively.

Compared with the previous month, the daily average of applications from workpeople showed a decrease of 2.3 per cent, while the daily average of vacancies notified and vacancies filled showed decreases of 1 per cent and 4.7 per cent, respectively. The decrease in the number on the register at the end of this period shows recovery from the seasonal decline.

In the principal occupational groups the average daily number of applications from adults was 8,895—6,467 men and 2,428 women. There were 4,339 vacancies reported—2,438 men and 1,901 women. The average daily number of positions filled, when compared with the previous month, showed a decline of 9 per cent among men and 4 per cent among women.

The occupational groups in which there were the largest number of positions filled by men were: Building and construction of works, 24 per cent; engineering and iron founding, 18 per cent. Seventeen per cent were general laborers. Sixty-eight per cent of the women

were placed in domestic service and 5 per cent in the dressmaking trades.

As regards juveniles, 24,438 applications were received from boys, 15,260 vacancies were notified and 11,139, or 73 per cent, were filled.

The number of applications received from girls was 21,899 and the number of vacancies notified for girls 15,965. Of the vacancies notified 10,031, or 63 per cent, were filled.

Of the total vacancies filled for juveniles, 31 per cent were filled by applicants who obtained their first situation since leaving school.

The following table shows, for men and for women, the number of applications from workpeople, vacancies notified, and vacancies filled during the five weeks ending April 9, 1920.

APPLICATIONS FROM WORKPEOPLE, VACANCIES NOTIFIED, AND VACANCIES FILLED DURING FIVE WEEKS ENDING APRIL 9, 1920.

Group of trades.[1]	Applications from workpeople.		Vacancies notified.		Vacancies filled.	
	Men.	Women.	Men.	Women.	Men.	Women.
Building	15,970	.....	15,762	.....	9,298	.....
Construction of works	2,793	.....	2,978	.....	2,501	.....
Engineering and iron founding	33,078	1,279	11,796	932	8,750	817
Shipbuilding	8,717	.....	3,055	.....	2,656	.....
Construction of vehicles	1,600	.....	2,018	.....	927	.....
Miscellaneous metal trades	8,600	1,992	1,448	672	1,069	578
Domestic service	5,545	33,914	2,199	36,882	1,572	19,188
Commercial and clerical	8,420	5,409	2,223	1,573	1,797	1,142
Conveyance of men, goods, and messages	24,391	1,168	4,926	649	3,963	571
Agriculture	5,342	457	2,573	448	1,965	179
Textiles	3,796	2,853	1,267	2,767	965	1,311
Dress (including boots and shoes)	3,030	2,856	721	2,997	532	1,503
Food, tobacco, drink, and lodging	2,601	2,006	437	646	340	466
General laborers	34,922	7,560	8,821	475	7,990	435
All other trades	15,802	6,070	5,596	3,289	3,966	2,138
Total	174,607	65,564	65,820	51,330	48,291	28,328

[1] Casual occupations (dock laborers and coal laborers) are excluded from this table and from all other figures above. The number of casual jobs found for workpeople in these occupations during the period was 5,124.

Volume of Employment in the United Kingdom in April, 1920.

THE following figures as to the condition of employment in Great Britain and Ireland in April, 1920, as compared with March, 1920, and April, 1919, have been compiled from figures appearing in the British Labor Gazette for May, 1920. Similar information for January was published in the April MONTHLY LABOR REVIEW.

In April, 1920, as compared with March, 1920, relative to number of persons employed, the largest increases are 4.1 per cent in the dressmaking and millinery trade and 3.7 per cent in the brick trade. A decrease of 14.8 per cent appears in the number of seamen.

Comparing April, 1920, with March, 1920, on the question of earnings of employees, increases of 11.7, 8.7, and 7.1 per cent are shown in the boot and shoe, brick, and jute trades, respectively.

In comparing April, 1920, with April, 1919, as to the number of persons employed, the cement trade shows an increase of 42.9 per cent; the lace trade, an increase of 32.3 per cent; the carpet trade, 30.9 per cent, and dock and riverside labor, 30.7 per cent.

The aggregate earnings of employees in April, 1920, as compared with April, 1919, show an increase in all the trades. Respective increases of 89.7, 72.5, 72.4, 64.9, and 61.1 per cent are shown in lace, cement, paper, glass, and carpet trades.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN APRIL, 1920, AS COMPARED WITH MARCH, 1920, AND APRIL, 1919.

[Compiled from figures in the Labor Gazette, London, May, 1920.]

Industry and basis of comparison.	Per cent of increase (+) or decrease (−) in April, 1920, as compared with—	
	March, 1920.	April, 1919.
Coal mining:		
Average number of days worked	+ 0.7	+ 2.9
Number of employees	+ .4	+ 6.8
Iron mining:		
Average number of days worked	− 4.9	− 3.0
Number of employees	− .3	+ 3.2
Quarrying:		
Average number of days worked	− .2	− 3.7
Number of employees	+ 1.1	+16.5
Pig iron: Number of furnaces in blast	+ 3.8	+ 1.5
Iron and steel works:		
Number of employees	+ .2	+11.1
Number of shifts worked	+ .1	+10.4
Tin plate, steel, and galvanized sheet trades: Number of mills in operation	+ .6	+14.2
Cotton trade:		
Number of employees	+ .5	+25.1
Earnings of employees	+ 1.4	+45.0
Woolen trade:		
Number of employees	+ .3	+ 8.6
Earnings of employees	+ 1.7	+34.8
Worsted trade:		
Number of employees	+ .8	+ 9.5
Earnings of employees	+ 1.4	+37.4
Hosiery trade:		
Number of employees	+ 1.2	+ 8.2
Earnings of employees	+ .9	+43.2
Jute trade:		
Number of employees	+ .7	+11.3
Earnings of employees	+ 7.1	+34.3
Linen trade:		
Number of employees	− .1	+ 6.5
Earnings of employees	+ 2.6	+44.0
Silk trade:		
Number of employees	+ 1.0	+11.7
Earnings of employees	+ 1.9	+47.9
Carpet trade:		
Number of employees	+ 1.2	+30.9
Earnings of employees	+ .7	+61.1
Lace trade:		
Number of employees	+ .4	+32.3
Earnings of employees	+ 2.7	+89.7
Bleaching, printing, dyeing, and finishing:		
Number of employees	+ .4	+18.8
Earnings of employees	+ 1.5	+56.6
Boot and shoe trade:		
Number of employees	+ .8	+ 8.5
Earnings of employees	+11.7	+39.7
Leather trades: Number of employees [1]	[2]	+ 1.1
Tailoring trade:		
Number of employees	+ .4	+ 1.4
Earnings of employees	+ .8	+14.8
Shirt and collar trade:		
Number of employees	+ 1.6	+14.5
Earnings of employees	+ 3.8	+40.0
Other clothing trades:		
Dressmaking and millinery—Number of employees	+ 4.1	+16.1
Wholesale mantle, costume, blouses, etc.—Number of employees—		
London	− .1	+11.4
Manchester	+ .1	+ 8.3
Glasgow	+ 1.0	+ 4.7
Corset trade—Number of employees	+ 1.4	+14.7
Woodworking and furnishing: Number of employees [1]	[2]	+ 1.5
Brick trade:		
Number of employees	+ 3.7	+24.5
Earnings of employees	+ 8.7	+57.3
Cement trade:		
Number of employees	+ 1.7	+42.9
Earnings of employees	+ 1.7	+72.5
Paper, printing, and bookbinding trades:		
Paper trades—		
Number of employees reported by trade-unions [1]	[3]	[3]
Number of employees reported by employers	+ .5	+29.4
Earnings of employees reported by employers	+ 2.1	+72.4
Printing trades—		
Number of employees reported by trade-unions [1]	+ .2	+ 1.7
Number of employees reported by employers	+ .2	+17.8
Earnings of employees reported by employers	− .1	+43.0
Bookbinding trades—		
Number of employees reported by trade-unions [1]	+ .3	+ 3.0
Number of employees reported by employers	[3]	+18.5
Earnings of employees reported by employers	− .2	+45.8
Pottery trades:		
Number of employees	+ 1.6	+15.3
Earnings of employees	+ 2.3	+40.0
Glass trades:		
Number of employees	+ .8	+29.8
Earnings of employees	+ 1.8	+64.9
Food-preparation trades:		
Number of employees	− 1.1	+ 8.5
Earnings of employees	+ 2.5	+44.5
Dock and riverside labor: Number of employees	− 2.5	+30.7
Seamen: Number of employees	−14.8	+ 4.2

[1] Based on unemployment. [2] No change. [3] No report.

Operations of Public Labor Exchanges in France, 1919.

THE following summary showing the operations of the public labor exchanges in France for the year 1919 is taken from Bulletin du Ministère du Travail (Paris) for November–December, 1919 (page 575).

NUMBER OF PERSONS SECURING EMPLOYMENT THROUGH THE FRENCH LABOR EXCHANGES, IN 1919, BY INDUSTRY GROUPS.

Industry group.	Males.	Females.	Total.
Fishing	367	43	410
Forestry, agriculture	28,747	7,462	36,209
Mining, quarrying	5,285	179	5,464
Food	17,709	2,630	20,339
Chemicals	18,345	251	18,596
Rubber, paper, cardboard	660	1,086	1,746
Printing, etc	1,278	746	2,024
Textiles	1,819	3,197	5,016
Clothing, etc	3,264	28,943	32,207
Hides and leather	3,656	2,062	5,718
Woodworking	20,130	385	20,515
Metallurgy, base	42,708	758	43,466
Metallurgy, fine	1,085	177	1,262
Excavation, building	78,393	100	78,493
Stone dressing, pottery, etc	3,502	1,315	4,817
Loading, unloading, storage, etc., laborers	311,570	26,480	338,050
Transportation	46,899	269	47,168
Commerce in food products	46,866	39,753	86,619
Commerce, various	29,564	13,684	43,248
Liberal professions	7,472	2,284	9,756
Domestic service	10,365	62,269	72,634
Not reported	7,472	576	8,048
Total	687,156	194,649	881,805

Employment in France in January and July, 1919, Compared with August, 1914.

THE French Labor Office has recently published [1] the results of its thirteenth investigation of industrial conditions. The report covers all establishments for which the visiting inspectors were able to gather specific data relative to the entire period beginning with "before mobilization" and ending July, 1919.

The data are reported by labor inspection districts (*circonscriptions*) and by groups of industries, and relate to "before mobilization," August, 1914, July of each year 1915 to 1919, and January and July, 1919. Data were secured from 42,099 establishments employing normally 1,548,410 persons.

The selected data in the following table shows the number of these establishments, and of the employees therein before mobilization, and the percentage thereof at the beginning of the war (August, 1914), shortly after the armistice (January, 1919), and in July, 1919, classified by industries.

[1] Bulletin du Ministère du Travail et de la Prévoyance Sociale, Paris, November-December, 1919, pp. 449-501.

NUMBER OF ESTABLISHMENTS REPORTING ON INDUSTRIAL CONDITIONS IN FRANCE, AND OF EMPLOYEES THEREIN, BEFORE MOBILIZATION, AND PER CENT THEREOF IN AUGUST, 1914, JANUARY, 1919, AND JULY, 1919, BY INDUSTRY GROUP.

Industry group.	Before mobilization.		Per cent of establishments in operation in—			Per cent of employees working in—		
	Number of establishments.	Number of employees.	Aug., 1914.	Jan., 1919.	July, 1919.	Aug., 1914.	Jan., 1919.	July, 1919.
Food preparations	3,532	83,945	69	91	95	53	65	72
Chemicals	1,331	70,988	60	90	93	42	97	88
Rubber, paper, and cardboard	723	51,448	50	93	96	32	69	74
Printing, etc	1,043	35,623	51	90	95	38	54	61
Textiles	3,744	390,957	35	85	94	41	58	67
Clothing, millinery, etc	9,603	126,802	62	80	85	37	76	78
Hides and leather	1,880	63,017	59	93	96	42	86	94
Woodworking	4,220	77,746	37	82	87	27	75	74
Metallurgy, base metals	6,253	376,837	44	88	94	29	101	93
Metallurgy, fine metals	179	4,657	33	76	91	20	71	86
Precious stones	96	2,758	64	81	91	27	54	57
Stone dressing, excavating, building, etc	1,937	69,485	39	66	78	20	51	97
Pottery and stoneware	1,083	77,880	35	76	87	22	52	63
Loading, unloading, storage, and transportation	447	31,021	57	94	100	44	90	96
Commercial establishments	6,028	85,246	71	90	93	47	72	81
Total	42,099	1,548,410	54	85	90	36	75	80

The personnel in July, 1919, represented 80 per cent of the normal force. The remaining 20 per cent does not, however, indicate the degree of unemployment in the particular establishments reporting. It is estimated that mobilization during the war absorbed 24 per cent of all persons (both sexes included) working in these establishments in July, 1914. In July, 1919, the proportion of the force thus absorbed was reduced to about 15 per cent. Thus, if the percentage of men still mobilized is added to the number employed in July, 1919, there is, in the establishments under consideration, but 5 per cent of unemployment as compared with prewar conditions. Unemployment in the specified industries did not necessarily reach the figures indicated by the percentages given in the above table, as it is quite certain that many of the persons formerly employed in certain occupations abandoned them and sought temporary employment in others in which employment remained more nearly normal, or even increased, or offered better conditions of pay, etc.

Immediately after the armistice contracts for materials for national defense were either reduced or canceled, and in order to engage in other productive lines time was required to make necessary changes in factory equipment; raw materials were lacking; fuel could not be obtained owing to the difficulties in transportation; and prices were excessive. Under these conditions many employees, especially women, were laid off, foreign workmen were discharged, and numbers of refugees returned to their homes. Since January, 1919, notwithstanding the decrease shown in the chemical, wood, and metal industries, there has been a gradual recovery, and conditions are slowly approaching normal. Labor is scarce and if the establishments were not faced with difficulties in transportation, fuel supply, and high price of materials, conditions might be considered satisfactory.

Employment of Women.

OF THE 1,548,410 persons employed before the war in these establishments, 502,261 were females. In August, 1914, the number fell to 228,357. The number increased at each investigation until July, 1917, when it reached 529,245, or 26,984 over normal times. In July, 1918, and January, 1919, the numbers were 515,945 and 458,509, respectively. A slight increase over January is noted for July, 1919, although 43,363 less than the normal number of women employed were reported.

The following table shows by groups of industries the percentage of female employees working in the reporting establishments in August, 1914, January, 1919, and July, 1919, as compared with the female employees before mobilization:

PER CENT OF FEMALES IN SPECIFIED INDUSTRIES EMPLOYED ON AUGUST, 1914, JANUARY, 1919, AND JULY, 1919, COMPARED WITH THOSE EMPLOYED BEFORE MOBILIZATION.

Industry group.	Number before mobilization.	Per cent working on—		
		August, 1914.	January, 1919.	July, 1919.
Food preparations	32,443	45	64	74
Chemicals	14,375	49	112	99
Rubber, paper, and cardboard	20,315	39	81	85
Printing, etc	10,702	51	71	75
Textiles	226,096	47	71	78
Clothing, millinery, etc	100,217	40	82	83
Hides and leather	20,351	31	77	81
Woodworking	9,631	42	118	103
Metallurgy, base metals	20,707	39	325	248
Metallurgy, fine metals	1,955	25	90	104
Precious stones	1,312	34	78	79
Stone dressing, excavating, building, etc	351	66	302	180
Pottery and stoneware	13,847	20	75	76
Loading, unloading, storage, and transportation	505	33	290	253
Commercial establishments	29,454	66	110	108
Total	502,261	45	91	91

An examination of the table shows that the number of women employed in these industrial establishments in July, 1919, was less than the number normally employed.

In the metal trades the percentage of increase in the number of women employed is very noticeable, while stone dressing, etc., and warehousing and transportation each show a considerable increase, and woodworking, and commerce furnished employment above the normal. The remaining industries show a reduction in the number employed ranging from 1 per cent in the chemical industries to 26 per cent in food manufacture.

INDUSTRIAL HYGIENE.

The Importance of Eyestrain in Relation to Industry.

THAT a very large proportion of civilized people are sufferers from eyestrain as a result of the conditions under which they live and do their work; that the condition as related to various occupations has not received the attention which it deserves; and that the prevention of eyestrain is chiefly dependent upon properly fitted spectacles, position of work both in relation to the vision of the worker and to the posture of his body, and suitable lighting are brought out by Dr. George M. Gould in an article on "Eyestrain in its relation to occupations," in the January, 1920, issue of the American Journal for Physiological Optics, published at Southbridge, Mass. (Vol. 1, No. 1.)

Eyestrain, Dr. Gould explains, should not be understood—as is often wrongly the case—as the overuse of a pair of optically perfect eyes, but "that use of ametropic eyes which is pathogenic, or productive of local or systemic derangements." Practically no human eyes are optically perfect; that is, perfectly adapted to the purposes which under present conditions they are expected to serve.

The startling truth comes to better recognition when we realize that in the past the entire complicated mechanism of vision was made and used almost solely for distant vision, while for the majority of its expert and educated workers, modern civilization chiefly and increasingly demands constant and accurate vision at near range. For this the mechanism does not exist, and the attempt to compel the function brings disease.

Much of the ordinary work done under ordinary conditions by civilized people to-day involves placing upon the eyes a severe tax from which result, first, local inflammation and morbidities of the lids, conjunctiva, etc., and later, retinal congestions, myopia, iritis, cataract, and so on.

Worse even than these are the systemic ocular reflexes, the morbid overflows and reactions of the cerebral telegraphic switchboard. There is a long list of these cerebral and mental diseases, the vast majority not caused by organic disease of the brain, and due solely to the morbid reflexes of eyestrain—"nervousness," tics, choreas, neurasthenias, epilepsies, and especially the interminable list of headaches and migraines—with or without giddiness, swoonings or faintings; exhaustion and morbid psychic effects; diseases of memory such as losses of self-knowledge and subsequent findings of self far away, with sudden coming back of memory; so called Ménière's disease; the functional stomachal and digestional diseases with persistent vomiting, anemia, denutrition, etc. Lastly, to swell and complicate the horror, between 80 and 90 per cent of the school-educated have lateral spinal curvature, which is largely of ocular origin.

All of these morbid conditions are preventable, according to the author, by the use of two simple devices, scientific spectacle lenses, and proper posture of the head and body, especially during writing, study, and such occupations. Various vocations and occupations are

arranged in five groups in the order of their eyestrain reflexes and diseases, based upon the author's personal experiences, reading, etc. Group 1, which he estimates contains 40 per cent of the population, of whom 1 to 20 per cent are believed to have ocular or eyestrain disease, includes most of those engaged in occupations which were dominant before the invention of printing, such as agricultural workers, soldiers, fishermen, hunters, trappers, lumbermen, etc. Group 5, estimated to represent 20 per cent of the population, of whom 80 to 100 per cent are believed to have ocular or eyestrain diseases, is almost solely made up of the most differentiated or specialized callings of the latest civilization required by learning, literature, printing, sewing, telephoning, and their ancillary crafts. In the three intermediate groups are classed the remaining 40 per cent of the population whose callings expose them to various degrees of ocular disorder and eyestrain.

Among important considerations governing the arrangement of these groups were the following: (1) The nearer the object habitually observed the greater the eyestrain. (2) The more constant this near focalization the more severe the eyestrain. (3) With decrease of illumination below a high physiological standard there is a geometrical increase of eyestrain. (4) The exposure of the eyes, during labor, to wind, cold, heat, dust, excessive illumination, etc., heightens their liability to inflammatory diseases and also to eyestrain and its systemic reflexes. (5) In near work, such as reading, writing, etc., any habitual abnormal position of the head or of the body may add enormously to the ocular injuries and eyestrain. (6) The age of the workman may govern the degree of eyestrain, everyone needing spectacles, especially for close work, after 43. (7) The synchronous cooperation of the two eyes is also an important factor. (8) Probably 6 per cent of children are naturally left-handed, caused by left-eyedness. (9) A peculiar axis of astigmatism, or the writing posture, may so tilt the head and body to one side as to set up lateral spinal curvature.

Attention is devoted to the subject of albinism, the tragedy of which, the author says, "is solely ocular and due to nonpigmentation of the irises"; to a study of eyestrain in telephone operators; and to miner's nystagmus. Concerning the latter the author disagrees with the theory that attributes the nystagmus of the "holing" coal miner to the position of the body and head and to the miner's looking upward, and states his belief that the real cause of the miner's nystagmus is "the extremely pathologic illumination of the retina by the object gazed at. The bare flame of the wretched lamp is often in front of the eyes. There is also quick, tense closing of the lids to avoid corneal injuries by the darting bits of coal; this increases astigmatism, amblyopia, and eyestrain generally. The change to machine holing will end miner's nystagmus."

The article concludes with a consideration of the lighting in factories, workrooms, schools, etc., about which surprisingly little is actually understood. Dr. Gould says:

> It is, in truth, most strange that the science of illumination as related to ocular physiology and pathology has scarcely been thought of. We are in a state of utter barbarism concerning it. With all the writing upon occupational diseases plainly due to understimulation, overstimulation, and morbific stimulation of the eyes by light, the essential and basic principles and sciences of photology and photometry

have not even been asked for. The tragedies of the albinos, of the nystagmics, of the glass blowers, and other cataractous patients, of welders and workers with electricity, of millions of school children in dark schoolrooms, of the snow-blinded—these show that a new world of truth as to the proper light stimulus for the eyes remains to be discovered and systematized for humanity's benefit. The use, the nonuse, and the misuse, the world over, of burnooses, hoods, turbans, head wrappings, shades, parasols, fans, hats, caps, etc., are crude attempts to shade the eyes from hurtful illumination. The whole problem of the tropical diseases of the Caucasian, and of occidental control of tropical civilizations and barbarisms, is not one of heat but of illumination, coupled, of course, with eyestrain and the secondary reactions of the organism against light in the pigmentations of the skin, irises, and retinas.

Industrial Unrest a Problem for the Psychiatrist.

"THE modern specialist in unrest—Place of the psychiatrist in industry"—is the title of an article by Dr. E. E. Southard in Industrial Management (Chicago) for June, 1920 (pp. 462–466). It forms the third of a series of papers by the author on "Mental hygiene in industry," resulting from studies supported by the Engineering Foundation, and was read at the fortieth anniversary of the Boston Society of Psychiatry and Neurology, January 15, 1920.

The paper was addressed to psychiatrists with the purpose of awakening their interest in what the author called "the new field of social psychiatry—a field wherein the problems of the probate court and the problems of the consulting office are amplified and developed by a hundred ramifications in the social web." This new field embraces not only psychiatry strictly speaking, as encountered in industry, but the wider application of psychiatry to industry which the author prefers to call the "mental hygiene of industry." Industry, according to the article, is the most immediate problem before the mental hygienist to-day, above all that phase of the situation commonly referred to as "industrial unrest."

For the study and relief of this problem there is urgent need of what the author describes as "a mental hygiene working party," the function of each part of which is clearly outlined and the intelligent cooperation of all members of which is needed in order to secure the best results. The members of such a working party are the psychologist, the psychiatrist, the psychiatric social worker, and a fourth person skilled in tabulation and statistics. Such a working party is not intended to supplant the employment or personnel manager or any other major or minor executive in an industrial plant, the idea designed to be conveyed by the term "working party" being that of "an investigation occasional rather than permanent, carried out by special officers having the weight of certain connections outside of the industrial plants themselves."

The psychological examiner, it is supposed, will become a relatively permanent part of the organization of an industrial plant, his value at present being chiefly in the interpretation of the discharge rate or turnover in the plant, but probably extending gradually to advice upon the problem of promotion upon lines of vocational psychology. The consulting psychiatrist should be in complete touch with the psychological examiner. He should have at his disposal all records

of mental testings or other recorded impressions, on the one hand, and on the other the records of the social worker, particularly those made in connection with discharged employees. The psychiatric social worker will probably be a permanent element in the plant, although her work may be chiefly done outside in the community, and especially in the families of those employees who become industrially disabled or discharged.

It is particularly in the grievances that come to the attention of the employment manager that the psychiatrist will find his work laid out. The following entries will readily suggest to the psychiatrist what sort of investigation ought to be carried out, especially with the aid of the psychiatric social worker:

Certain causes of removal from pay roll:
- Did not like supervision.
- Refused to be transferred.
- Resented criticisms.
- Did not like working conditions.
- Work too hard.
- Agitator.
- Carelessness.

Certain causes of removal from pay roll—Concluded.
- Dishonesty.
- Drinking.
- Fighting.
- Indifference.
- Insubordination.
- Too slow.

There is also a paragraph called "Superintendent's private file" among the "unsatisfactory" groups of removals that might well be looked into by the consulting psychiatrists. Where do all these grudge bearers, agitators, drinkers, fighters, and lazy persons go? Some of them figure in the discharge files and turnover analyses of not distant plants within a comparatively short time. We may talk of the solution of such problems as a duty of the community; but it should not be long before industrial plants themselves recognize the efficiency and welfare virtues of attending as strictly to their human outgo as to their human intake.

The author's main thesis is that the psychiatrist has a place in industry—"a place in the routine of industrial management, not as a permanent staff member (save in the instances of very large firms and business systems) but as a consultant at stated periods relative to the matter of grievances, complaints, and dissatisfactions, actual and potential." This consultant would serve in a preventive, rather than in a curative, capacity.

It is found that unrest is a matter of both group and individual psychology. It is with the latter phase of the subject that the psychiatrist is properly concerned. In company with the psychiatric social worker, the modern psychiatrist more or less definitely supervises many so-called psychopathic personalities, who do not require commitment to an institution but will benefit from community supervision.

The opportunity of psychiatrists to be of service to industry lies in the fact that most of their patients have either come out of industry or will return to industry in some capacity. "Special investigations of the individual patients with respect to their industrial status and future should be made. The information which the psychiatrist possesses concerning personality, temperament, and special abilities, as modified by mild mental disease and defects, should be at the call of the employment manager." Cooperation

between psychiatric social workers of the State institutions and those from industrial plants will greatly facilitate the placing of particular discharged workmen. The author declares that experience has shown that psychopathic persons can be fitted into industry far more successfully than is ordinarily believed, and that the success of psychopathic hospital clinics for employment managers in the summer of 1919 fully proved the value of spreading these practical doctrines of mental hygiene among industrialists.

WORKMEN'S COMPENSATION.

Report of the Industrial Accident Board of Massachusetts.[1]

THE Sixth Annual Report of the Industrial Accident Board of Massachusetts covers the fiscal year ending June 30, 1918. There were 77,505 cases of injury, of which 438 were fatal, 17 caused permanent total disability, 2,177 permanent partial disability, 74,873 temporary total disability. Of the total number 71,068, or 91.7 per cent, were insured under the provisions of the compensation act, while 6,437 cases were not insured. Insurance payments paid and to be paid on account of injuries occurring during the year amounted to $4,647,515.41. Medical costs total $1,019,518.84, or an average of $11.80 per case. Fatal injuries involved payment of $870,182, or an average of $2,536.97; while for nonfatal injuries $2,757,814.57 was paid, or an average of $101.96 per case.

The statistical presentation used differs from that of previous years, "in order to conform in so far as possible to the uniform classification of statistics agreed upon by certain States for the purpose of developing a better standardized presentation of industrial accident experience throughout the country." Other changes will be made later when the mode of collecting accident data has been adjusted to the requirements of the uniform system. An important feature of this system is the adoption of a severity standard on the basis of the weighted time loss. Rates of wages differ, as do amounts of compensation, so that neither the wage loss nor the benefits paid afford strictly comparable results; but the actual loss of time, computed according to an agreed standard, affords a stable basis for comparing severity of injuries in the different industries and for various degrees of disability. Death and permanent total disability are estimated to occasion a loss of 6,000 days, this representing the average working life expectancy as determined by the accident experience of several States with "some practical modifications based on committee judgment." Giving to each industry its actual or weighted value expressed in wage loss, the 77,505 tabulatable injuries caused a total loss of 5,970,000 days. Of this amount, 2,628,000 days were chargeable to fatal cases; 1,661,845 to temporary total disability; 1,586,955 to permanent partial disability; and 93,200 to permanent total disability.

Of the 74,873 cases causing temporary disability, 12,453, or 16.6 per cent, terminated within 3 days, and an additional 20,190, or 26.9 per cent, within 7 days. This makes a total of 32,643 cases causing not more than 7 days' disability, being 43.5 per cent of the total number of cases, which would be without compensation

[1] Commonwealth of Massachusetts. Sixth Annual Report of the Industrial Accident Board, Boston, 1919, pp. 130.

of any kind where a 7 days' waiting time is prescribed. If the waiting time is 10 days, as is the case in Massachusetts, an additional 6,933 cases, or 9.3 per cent of the total are also without compensation, thus excluding 52.8 per cent of the total number of persons injured from all other than medical benefits. Disability continued from 11 to 14 days in 8.1 per cent of the cases; from 2 to 4 weeks in 17.3 per cent; over 4 to 8 weeks in 13.5 per cent; over 8 to 13 weeks in 4.7 per cent; while 3.6 per cent caused disability in excess of 13 weeks.

The greatest number of injuries occurred in the manufacture of iron and steel and their products (16,233); textiles coming next with 12,900 cases; and road, street, and bridge transportation with 8,500 cases. On the basis of severity weighting the position of these three principal causes of disability is changed, road, street, and bridge transportation standing first with a time loss of 1,000,413 days, iron and steel and their products coming next with 948,769 days, and textiles coming third with 860,700 days.

The handling of objects was the most prolific cause of injury, being responsible for 21,134 tabulatable injuries. Machinery comes next with 19,640 cases, and falls of persons third with 10,530.

A wide range of detailed studies is made showing the distribution of causes by resultant days lost, average time lost per case by principal causes, distribution of tabulatable injuries by wages, sex, and age of injured persons, conjugal condition, and dependency in fatal cases, specific injury cases, etc. There is also a study of dependency in fatal cases not insured under the act.

Statistical tables, 11 in number, are contained in the last 63 pages of the report, presenting in full the data above summarized.

Report of Workmen's Compensation Board of Nova Scotia.[1]

THE Workmen's Compensation Board of Nova Scotia presents its report covering the calendar year 1919, with the caution that data for that year must be accepted as only approximately correct, final reports and adjustments not yet being at hand in all cases. Revised figures are given for the years 1917 and 1918 in several of the tables.

A marked decrease in the number of fatal accidents during 1919 is given prominence in the report, the number for 1917 being 146, for 1918, 185, and for 1919 but 47. Disasters in mines in the two earlier years were responsible for 65 and 88 deaths, respectively, while in 1918, 17 workmen lost their lives in a lumber-camp fire. However, eliminating these disasters, what are termed "ordinary fatal accidents" amount to 81, 80, and 47 accidents for the three years, respectively. Coal mines were the largest single source of fatal accidents, and omitting the disasters of 1917 and 1918 there is still a very favorable showing for 1919, the numbers being 32, 38, and 19 for the three years. "If the foregoing result was brought about by extra pre-

[1] Report of Workmen's Compensation Board, Halifax, N. S., 1920. 31 pp.

cautions taken after the disastrous experience of 1917 and 1918, it demonstrates what is possible in the way of accident prevention."

In this report injuries causing permanent disability are not distinguished as to partial and total, which fact must be kept in mind in reading the following table which summarizes the accident experience for the three years during which the act has been in operation:

ACCIDENTS REPORTED DURING 1917, 1918, AND 1919 UNDER NOVA SCOTIA WORKMEN'S COMPENSATION LAW.

Item.	1917	1918	1919[1]
Temporary disability	4,504	4,504	4,277
Permanent disability	186	242	156
Deaths	146	185	47
Claims pending completion			408
Total compensable	4,836	4,931	4,888
Accidents not compensable	2,339	2,734	1,510
Total accidents reported	7,175	7,665	6,398

[1] Figures subject to revision.

The number of accidents not compensable is made up of those which do not cause at least seven days' disability and those on account of which claims are disallowed. The number reported is felt to be quite lacking in value since minor accidents clearly not entitled to compensation are quite generally ignored by both employers and workers.

The State fund system of insurance is in force in Nova Scotia, and the experience of the preceding years was such as to lead to a lowering of the insurance rates. Thus in coal mining the rate for the year 1918 was $4.40 per hundred dollars of pay roll; this was reduced to $3 for 1919. Other reductions in important industries were in steel and iron manufacturing, from $1.90 to $1.50; building, from $2 to $1.50; stevedoring, from $4 to $3; steam railways, from $4.50 to $2; and lumbering, etc., from $3 to $2.50. The result justified the reduction in all cases except lumbering, where a deficit for the year occurred amounting to $35,596.62; a deficit of $5,521.47 also occurred in the building industries. Surpluses aggregated $231,490.88, and deficits, $41,118.09, the funds as a whole showing a surplus of $190,372.79.

Administration expenses were payable out of the accident fund, and amounted to 5.76 per cent of the total amount of assessments for 1919 as compared with 3.66 per cent for 1918 and 2.58 per cent for 1917. Two reasons are given for the increase in the expense ratio, one being the fact that the assessments in 1919 were more than $200,000 less than in 1918, the other being that not only must new accidents be taken care of each year, but there is also a growing accumulation of business from previous years to be cared for until the maximum number of pension payments has been attained. The statistical presentation is such as the board thought of value and interest "in the absence of an order in council prescribing what particulars should be given," and while fairly complete is not so fully comparable with that of other reports as would be the case if a more standardized form were used.

SOCIAL INSURANCE.

Modification of British Out-of-work Donation Plan.

THE British Labor Gazette for May, 1920 (page 228), states that the out-of-work donation plan originally put into operation immediately after the signing of the armistice in November, 1918, and modified in November, 1919 (see MONTHLY LABOR REVIEW for February, 1920, pages 228, 229), has again been modified by granting a further extension of the payment of the donation to ex-service men and merchant seamen, who would otherwise cease to be eligible for the donation on and after March 31, 1920. Under this so-called special extension scheme No. 2 the payment of the donation is provided for a maximum period of 12 weeks (72 days) between April 1 and July 31, 1920, the rates to remain the same as under the first extension of November, 1919, namely, 20s. ($4.87, par) per week to men and 15s. ($3.65, par) per week to women. No supplementary donation in respect of dependent children is made. So far as merchant seamen are concerned, in addition to the above rates, provision is made that boys and girls of 15 and under 18 years of age may receive 10s. and 7s. 6d. ($2.43 and $1.83, par), respectively, per week.

In this connection the Gazette carries a table showing a total of 217,186 claims for benefit under the out-of-work donation plan as of April 30, 1920. Of this number 162,459 were under the original scheme and 54,727 under the special extension scheme No. 2 just noted. This total is a reduction of 36,513 as respects the original scheme and an increase of 16,073 as respects the special extension scheme, or a net reduction of 20,440. Since the armistice, it is stated, 4,305,090 men have been discharged or demobilized, the number at present represented as claiming out-of-work donation being about 5 per cent of the total.

Periodic Medical Examination of Members of German Sick Funds.

THE October, 1919, issue of the Zeitschrift für die gesammte Versicherungs-Wissenschaft contains a noteworthy article by Dr. Reckzeh (Berlin) on the desirability of "periodic medical examinations of healthy persons insured in sickness, accident, invalidity, and salaried employees' insurance funds and with life insurance companies." In this article Dr. Reckzeh emphasizes how valuable such a measure would be during the coming years when the

unfavorable influence of the war upon the general state of health would manifest itself. He points out that of the various carriers of State workmen's insurance the sick funds are most suited to put into practice the idea of periodic medical examinations of their healthy members, since the timely detection of predisposition to certain forms of disease or of incipient disturbances of the health may prevent serious sickness and thus diminish the financial burden of the sick funds. The idea has been discussed and favorably commented on by directors' meetings of various large local sick funds (*Ortskrankenkassen*) but it has never been put into practice.

In a more recent issue of the above-mentioned journal,[1] however, an article on the same subject by Justizrat Wandel (Essen) reports that periodic medical examinations of healthy members have been introduced, beginning with November 15, 1919, by one of the largest works' sick funds (Betriebskrankenkassen) of Germany, namely, the sick fund of the Krupp Works in Essen.

The development of the sick fund of the Krupp Works during the period of the war reflects the conditions of the Krupp Works themselves during that period. At the outbreak of the war the fund had about 39,000 members, almost without exception of the male sex and exclusively of German nationality. By November 1, 1918, the membership of the fund had increased to 105,000 owing to the gigantic efforts of the works to fill the contracts for war materials awarded to it. Of these 105,000 members, however, 30,000 were women and 10,000 were aliens. The enormous increase in membership, which made control very difficult, and the generally unfavorable state of health of the members, due to undernutrition and to the presence among workers of numerous bad health risks, caused a large increase in the expenditures of the fund. This increase in expenditures had to be met by increased contributions by the members and special subsidies by the owners of the works. With the termination of the war there came a sudden change in these conditions. By the end of 1918 the membership of the fund fell to 42,700 and, owing to the discharge of women, juvenile, and alien workers, the general state of health of employees of the Krupp Works improved considerably. This period of return to more normal conditions was used by the directors of the sick fund to introduce periodic medical examinations of the members of the fund.

Examinations Entirely Separated From Works' Management.

ANYONE having frequent dealings with workmen will find that often innovations introduced by the employer are at first met with great distrust by the workmen. Thus there existed the danger that some workmen might see in periodic medical examinations a means by which the employer could ascertain what workers were physically less efficient, for the purpose of discharging those who did not come up to the physical standard. For this reason everything possible has been done to keep the medical examinations entirely separated from the works' management as such. The examinations are being made outside of the works' limits, in the

[1] Zeitschrift für die gesammte Versicherungs-Wissenschaft, vol. 20, No. 2. Berlin, Apr. 1, 1920, pp. 134–137.

administration building of the sick fund, and by a physician specially appointed by the fund. All regulations and information relating to the examinations are issued by the directorate of the fund, on which workmen are in the majority. Thus the medical examinations are in every respect an innovation introduced by the sick fund upon which the older workmen look with a certain pride as a welfare institution of their own because essentially maintained by them. For the reason before mentioned submission to medical examination is made entirely voluntary. It is expected that continued enlightenment of the members of the fund, especially through the older experienced workmen, will induce a majority of the members to avail themselves of the opportunity of undergoing free medical examination even if they believe themselves in good health.

The examinations, for which the most modern apparatus and appliances are available, extend to all important organs. The weight of the person to be examined, his temperature, chest circumference, and blood pressure are determined; the urine is analyzed as to excessive contents of albumen and sugar; and, if necessary, the blood, feces, or stomach contents are also examined and a Röntgen photograph is taken. Medical treatment is not given at the examination. If the examination establishes symptoms of disease requiring medical treatment, the person examined is advised to consult a physician. If medical treatment is not required, the examining physician advises the sick-fund member carefully to observe certain specified symptoms of bodily ailments and to regulate his mode of living in accordance with his state of health. If, however, the state of health of the examined person requires it, the examining physician instructs him to make application to the sick fund for initiation of a curative treatment or the granting of means for a sojourn in the country, or advises him to apply to the works' management for transfer to some easier work.

In view of the large membership of the sick fund the examinations can only take place in accordance with a schedule worked out by the directorate of the fund for each individual establishment of the works. This schedule is based on the principle that each member should be given an opportunity every two years to be examined. More frequent examinations will be permitted on special request.

At the first examination of a sick-fund member a card is filled in. In addition to personal data relating to the member the card shows all essential results of the examination. This card is used at all subsequent examinations and possible changes entered on it. The examining physician has also at his disposal the general sickness record kept by the sick-fund administration. In cases of sickness the attending sick-fund physician is, on request, informed of the results of the periodic examinations and can thus utilize them in his treatment.

Time will show whether the above-described institution of the Krupp Works' sick fund is of practical value and whether it will develop into a diagnostic institute. If not viewed as an annoying control, and if made use of regularly and with full confidence, the workers will find these periodic medical examinations equivalent to consultations with their family physician and of great benefit to them.

LABOR LAWS AND DECISIONS.

Movement to Secure Uniform Labor Laws in Canada.[1]

AT THE National Industrial Conference held at Ottawa, Canada, in September, 1919, a resolution was adopted urging the advantage of uniformity in labor legislation throughout the Dominion. The resolution recommended the appointment of a board made up of one representative of the Government, one of employers, and one of employees, the Dominion and each Province to be thus represented. In pursuance of this resolution a board or commission was appointed and met at Ottawa on April 26, representatives from all the jurisdictions being present throughout, except that those from Prince Edward Island arrived late. Sessions were held throughout the week, concluding May 1.

The report of the commission covered five heads, the first relating to workmen's compensation, the second to factory laws, the third to laws relating to mines and mining, the fourth to minimum wages for women and girls, and the fifth to industrial disputes legislation. The report on workmen's compensation is reproduced in full on account of the very general interest in that subject on this side of the boundary line. It is as follows:

The committee on workmen's compensation legislation beg leave to recommend as follows:

1. That all Provinces adopt the idea of exclusive state insurance to be administered by a board.
2. That all workmen, not especially exempted under the act, who work in an industry which comes within the scope of the act, shall be under the act, regardless of the amount of their remuneration.
3. That all employees of provincial governments and of municipalities, including police and firemen, be included within the scope of the act.
4. That the scope of compensation acts be extended as far as practicable to include industries not now covered by the acts.
5. That in all Provinces contributions to the accident fund shall be borne exclusively by the employer.
6. That all medical, surgical and hospital attention be supplied in cases of injury or industrial diseases.
7. That in every Province there should be a time limit within which claims for compensation should be filed.
8. That except in special cases payment of compensation shall be made periodically direct to the claimant by the board.
9. That injuries due to disease or accident arising out of and in the course of employment should be considered as coming within the scope of the acts.
10. That the cost of administration of workmen's compensation in each Province be borne by the government of that Province.
11. That rules and regulations for prevention of accidents be made by the board in each Province, and safety committees composed of employers and employees be established in the various places of employment, and further that first aid appliances be installed at the various plants; all the foregoing to be under the direction of the board.

[1] Data taken from the Labor Gazette, Ottawa, May, 1920, pp. 538-547.

12. Where under any compensation act the employer has the right to bring his employees under the act by election, the employees should have the same right where a majority so decide.

13. That in cases of death or injury all Provinces should adopt a uniform scale of compensation.

A comparative table of the main provisions of the compensation laws of the various Provinces is given, as is also a table for the factory legislation of the Provinces. As to the latter, it was recommended that the factory acts of the Provinces be not limited in their scope but cover "all industrial establishments in which one or more persons are employed in any manufacturing process." It is recommended that no boy under 14 nor girl under 15 years of age shall be employed in an industrial establishment, and that women, girls and boys shall not be employed more than 48 hours per week nor before 6 o'clock in the morning nor later than 10 o'clock in the evening, nor more than 10 hours in any one day, including overtime. By "boy" is meant a male person between the ages of 14 and 16 years.

As to mining legislation it was felt that local conditions made necessary many variations, so uniformity could not be urged. However, the minimum age of 14 for boys above ground and 16 for employment below ground was recommended; also that no boy under 18 be in charge of or operate any power machinery for moving material in a mine, and no person other than a man of 21 years of age or over be employed in raising or lowering persons in a mine. The 8-hour work day already in force in a number of Provinces and the semimonthly payment of wages were recommended. No wages should be paid nor pay checks cashed in a place where intoxicating liquors are sold. The examination and certification of supervising and inspecting employees were recommended, and matters of ventilation and the health of mining camps were also referred to.

The principle of a minimum wage for women and girls was approved, and the creation of a board of commissioners to fix adequate wages in each Province was recommended.

Under the subject of industrial disputes legislation, the following principles were proposed:

1. That disputes in mines and public utilities should be dealt with exclusively by federal legislation.

2. That federal legislation should be held to apply to public utilities under the control of a Province or municipality or other public or private authority.

3. That, whereas, in some cases provincial legislation has been enacted respecting industrial disputes which applies to all occupations giving rise to the relations of employer and employee and which therefore includes policemen and firemen, it should be provided that all disputes affecting policemen or firemen in all parts of Canada should come within the jurisdiction of the federal law.

4. The committee lacks information enabling it to decide upon the advisability of the extension of the present federal law to other industries, and therefore makes no recommendation.

Participation in Political Strikes Not a Breach of Contract—Decision of Swiss Court.

THE question whether participation in a political strike constitutes a breach of a collective agreement has for some time been much disputed in practice. In view of the present world-wide unrest of labor which manifests itself in incessant strikes of a more political

than economic character, a recent decision of the Swiss Supreme Court (Bundesgericht) [1] in a suit for breach of a collective agreement through participation in a general strike ought to be of interest even outside of Switzerland. The case in question was the following:

A trade-union had been sued by a corporation, as employer, for payment of double the amount (2,000 francs, $386, par) of the fine agreed upon in case of breach of the collective agreement concluded by the two parties which was alleged to have been forfeited by reason of the fact that members of the trade-union in question had doubly broken that agreement by taking part in a strike of protest as well as in the general strike of November, 1918. The suit was decided in favor of the corporation by the lower courts (cantonal courts) but was dismissed by the supreme court. The latter adduced the following grounds for the dismissal of the suit:

* * * A collective agreement is not a labor contract. It neither obligates the performance of labor for a compensation nor the conclusion of labor contracts. It merely sets up principles to be observed in the case of conclusion of labor contracts. By taking part in the two strikes the workers were not intent on obtaining a modification of the collective agreement. They stopped work for the mere purpose of expressing their protest against measures of the authorities (the calling out of the troops to preserve order), i. e., as a political demonstration.

The workers took the point of view that a fine for breach of contract can only be claimed if such a breach has occurred through the fault of the workers, while in the case in question the action of the workers was made necessary on the principles of solidarity, the disregard of which is considered dishonorable in labor circles. * * *

In view of the numerous collective agreements concluded by Swiss trade-unions and employers' organizations the above decision is of great importance for Swiss organized labor. It refutes the assertion of the employers that any strike arising from economic conditions involves a breach of contract and upholds the conception that in case of mass strikes even those trade-unions that are bound by collective agreements shall be free to strike for reasons of common interest and solidarity.

[1] Die Gewerkschaft, Vienna, Apr. 27, 1920.

LABOR BUREAUS.

Women's Bureau in the United States Department of Labor.

WITH the signature of the President on June 5 to a bill providing for its creation, a Women's Bureau came into immediate being as a statutory integral part of the Department of Labor. Such an agency had in fact existed as a "Women in Industry Service," established as a war-time measure to promote the most effective use of women's services in production for the war, at the same time undertaking to prevent employment under injurious conditions. Bills looking to the establishment of a women's division in the office of the Secretary of Labor had been introduced in the Sixty-fourth and Sixty-fifth Congresses, but never got beyond a favorable report of the committees in the earlier Congress, and not so far as that in the latter. However, during the Sixty-fifth Congress appropriations were made to enable the Secretary of Labor "to carry on the work of war-labor administration," one feature of which was the Women in Industry Service mentioned above. The sum of $40,000 was specifically appropriated for this purpose in the sundry civil bill for the fiscal year ending June 30, 1919, and the next Congress appropriated a like amount for the succeeding year. These appropriations were made "to enable the Secretary of Labor to continue the investigation touching women in industry," and the name of the agency was changed in July, 1919, to the Women's Bureau.

The value of the work done by this agency, and the interest felt by the proponents of the earlier bills, led to an effort to secure a continuance of the service not only by appropriating money therefor in the sundry civil bill for the next year but also by renewing efforts to give it a legal and permanent status as a part of the department established by law, as had been done by the Sixty-second Congress in behalf of the Children's Bureau.

On March 23, 1920, Mr. Campbell, of Kansas, introduced a bill (H. R. 13229) which differed from the earlier bills on the same general subject by proposing to establish in the Department of Labor a Women's Bureau, and not merely a women's division in the office of the Secretary. This bill received favorable action in the House on April 19 on a motion to suspend the rules and pass the bill, the vote being 255 to 10. Before action by the Senate, the matter of continuing the appropriation for the existing organization came up in the sundry civil bill for the year ending June 30, 1921, and it was attacked in the House, going out on a point of order that there was no law authorizing an appropriation for this purpose. The amount proposed was $75,000, and this sum was reinstated in the bill when under consideration by the Senate and was ultimately retained in the measure. The bill creating the bureau came up in the Senate on June 1 and was passed without a record vote, though there was some opposition.

No specific provision is found in the act, either for carrying over the organization of the Women's Bureau organized by the Secretary or making available for the new bureau the sum appropriated for the old one, but no doubt exists that both will be done.

The text of the law follows:

SECTION 1. There shall be established in the Department of Labor a bureau to be known as the Women's Bureau.

SEC. 2. The said bureau shall be in charge of a director, a woman, to be appointed by the President, by and with the advice and consent of the Senate, who shall receive an annual compensation of $5,000. It shall be the duty of said bureau to formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment. The said bureau shall have authority to investigate and report to the said department upon all matters pertaining to the welfare of women in industry. The director of said bureau may from time to time publish the results of these investigations in such a manner and to such extent as the Secretary of Labor may prescribe.

SEC. 3. There shall be in said bureau an assistant director, to be appointed by the Secretary of Labor, who shall receive an annual compensation of $3,500 and shall perform such duties as shall be prescribed by the director and approved by the Secretary of Labor.

SEC. 4. There is hereby authorized to be employed by said bureau a chief clerk and such special agents, assistants, clerks, and other employees at such rates of compensation and in such numbers as Congress may from time to time provide by appropriations.

SEC. 5. The Secretary of Labor is hereby directed to furnish sufficient quarters, office furniture, and equipment for the work of this bureau.

SEC. 6. This act shall take effect and be in force from and after its passage.

Approved, June 5, 1920.

Report of Commissioner of Labor of Louisiana.

THE State of Louisiana is classified as an agricultural State, and has not developed any considerable body of inspection legislation or machinery for law enforcement. However, the report of the Commissioner of Labor and Industrial Statistics for 1919–20[1] covers a considerable range of interesting matter, and shows important industries and a vital interest in industrial conditions. The staff is quite limited, but branch offices are maintained in Lake Charles and Shreveport, under assistant commissioners, and there is an inclination to increase the scope of the law enforcement duties of the department. The report opens with recommendations for legislation, including the establishment of an 8-hour day and 48-hour week for the employment of women and children, seats for female workers, a grant of power to the department to secure wage adjustments between employers and employees, better regulation of employment agencies, the creation of an industrial insurance commission to handle the workmen's compensation law of the State, which should be made compulsory on all employers in hazardous occupations and elective as to others, the maintenance of a State insurance fund, and the creation of an industrial welfare commission. The enactment of a minimum wage law is especially urged, and increased benefits for industrial injuries.

[1] Tenth Biennial Report of the Department of Labor and Industrial Statistics of the State of Louisiana, 1919–1920. New Orleans, 1920. 208 pp.

The Federal statute taxing the products of child labor is recommended as offering a suitable standard for child labor legislation in the State. An interesting side light upon the effect of the Federal law is disclosed in the promptness with which employers sought to know the terms of this act, saying that they did not wish "to get tangled up with Uncle Sam," though they had quite generally assigned ignorance of the requirements of the State law as an excuse for violations. "Some employers who previously persisted in ignoring all laws applicable to child labor became suddenly interested and signified a disposition to cooperate with local authorities, formerly ignored and practically defied."

Gross violations of the law providing for semimonthly payment of wages and payment in cash or redeemable substitutes at full value, were found to be all too common, and vigorous action has been taken to enforce the laws in so far as the commissioner has power. Violations of the compensation act, particularly in the way of making employees contribute to insurance under the act, have also been attacked, but there is a demonstrated need of a special commission to have charge of the entire law.

The volume contains opinions rendered by the Department of Justice, briefs of important decisions by the Supreme Court of the State and of the United States, a summary of the State labor laws, union scales of wages and hours, strikes and lockouts, roster of labor organizations and industries of the State, and brief descriptions of important industrial establishments and conditions of employment therein.

Bulletin of the Philippine Labor Office.

THE Labor Office of the Philippine Islands has begun the publication of a quarterly bulletin. The first number was issued in March, 1919, and the second in June, 1919, under the title "Labor Boletin Trimestral de la Oficina del Trabajo." The text is in English, Spanish, and certain native dialects. The stated purposes of this bulletin are to offer laborers a source of general information, to diffuse moral and social principles, and to furnish statistical and other information relating to the work of the bureau.

Personnel of British Ministry of Labor, May 20, 1920.

THIS Bureau has just received from the British Ministry of Labor a statement of the organization and personnel of the ministry as of May 20, 1920. It is believed to be of sufficient interest to State labor departments and bureaus, to State industrial commissions, and to labor organizations generally, to warrant its publication in full. The Ministry of Labor was set up in December, 1916, under provisions of the Ministries and Secretaries Act, 1916. The address of the Ministry of Labor is Montagu House, Whitehall, London, SW 1.

MINISTER: Rt. Hon. T. J. Macnamara, P. C., L. L. D., M. P.
PARLIAMENTARY SECRETARY: Sir A. Montague Barlow, K. B. E., M. P.
JOINT PERMANENT SECRETARIES:
Sir D. J. Shackleton, K. C. B.
Sir J. Masterton-Smith, K. C. B.
SECOND SECRETARY: E. C. Cunningham, C. B.
HEADS OF DEPARTMENTS:
ESTABLISHMENT DEPARTMENT—
A. W. Watson, C. B. E., principal assistant secretary.
W. W. Marsh, assistant secretary (acting).
ACCOUNTANT GENERAL'S DEPARTMENT—
F. G. Bowers, O. B. E., accountant general.
F. Davey, deputy accountant general.
SOLICITOR'S DEPARTMENT—
Lawrence A. Clive, C. B. E., solicitor.
L. A. J. Granville Ram, assistant solicitor.
WAGES AND ARBITRATION DEPARTMENT—
H. J. Wilson, C. B. E., principal assistant secretary.
J. A. Dale, assistant secretary (acting).
EMPLOYMENT DEPARTMENT (i. e., employment exchanges, etc.)—
T. W. Phillips, C. B. E., principal assistant secretary.
J. F. G. Price, assistant secretary.
J. Paterson, assistant secretary (acting).
INDUSTRIES DEPARTMENT (i. e., trade boards and joint industrial councils)—
H. Wolfe, C. B. E., principal assistant secretary (acting vice Mr. H. B. Butler on loan to International Labor Office).
F. W. Leggett, assistant secretary.
COUNCIL SECRETARIAT—
J. S. Nicholson, assistant secretary.
INTELLIGENCE AND STATISTICS—
J. Hilton, assistant secretary.
HEADS OF TEMPORARY DEPARTMENTS:
TRAINING DEPARTMENT—
Sir James Currie, K. B. E., C. M. G., controller.
APPOINTMENTS DEPARTMENT—
Sir R. Gillan, K. C. S. I., controller.
CIVIL LIABILITIES DEPARTMENT—
F. E. McClellan, controller.

Creation of Federal Central Employment Office in Switzerland.[1]

A RESOLUTION of the Swiss Federal Council of January 6, 1920, provided for the taking over by the Federal Office for Unemployment Relief of the Swiss Central Employment Office. The latter was formerly administered by the Municipal Employment Office of Zürich. Since February 1 the Central Employment Office (*Eidgenössische Zentralstelle für Arbeitsnachweis*) forms Section II of the Federal Office for Unemployment Relief at Bern.

The duties of the new office are the following: Publication of a weekly bulletin on the state of the labor market and of a list of vacant situations; cooperation in the creation of new and the extension of the functions of existing employment offices, in the general development of the public employment service, and in measures for the combating of unemployment; centralization of the employment service in cooperation with the trade organizations of employers and workers

[1] Data taken from circular letter of Verbands sekretariat der Schweizer. Arbeitsamter. Zürich [February, 1920].

and the farmers' secretariat; maintenance of relations with Federal and cantonal authorities which employ labor on public works; regulation of the assignment of workers to contractors of public works; inquiring for vacant situations in industry, the handicrafts, commerce, agriculture, forestry, etc.; maintenance of relations with cantonal central employment offices, trade organizations, etc.; thorough investigation of the Swiss labor market; regulation of the international employment service and of the immigration and emigration of labor.

CURRENT NOTES OF INTEREST TO LABOR.

Change in Name of the National Association of Employment Managers.

THE action of the membership of the National Association of Employment Managers in voting to change the name to Industrial Relations Association of America was ratified by the board of directors on February 27, 1920, at a meeting held in New York City, the new name becoming effective March 1. This association of employment managers had its beginning as a national organization at a conference held in Rochester, N. Y., May 9 to 11, 1918 (proceedings published in Bulletin 247 of the United States Bureau of Labor Statistics), which was attended by more than 800 men and women doing employment and personnel work in manufacturing plants throughout the country.

Prior to the Rochester convention, employment managers had met at Minneapolis in January, 1916, at Boston in May, 1916, and at Philadelphia in April, 1917 (proceedings published, respectively, in Bulletins 196, 202, and 227). The first conference of employment managers as a national organization was held in Cleveland in May, 1919, and the second was held in Chicago in May, 1920, just prior to which time, as already stated, the name was changed to Industrial Relations Association of America. An account of the Chicago conference appears on pages 51 to 53 of this issue of the REVIEW. The organ of the new association is "Personnel," published monthly at Orange, N. J.

Increased Cost of Equipment for Lumbering Operations in New Brunswick.[a]

THE United States consul at Campbellton, N. B., furnishes the following table showing the increased cost of lumbering operations in that Province during 1919 as compared with 1913. The percentages of increase have been computed; they do not appear in the original table.

INCREASED COST OF LUMBERING OPERATIONS IN THE PROVINCE OF NEW BRUNSWICK DURING 1919 AS COMPARED WITH 1913.

Item.	Unit.	1913	1919	Per cent of increase.	Item.	Unit.	1913	1919	Per cent of increase.
Men's monthly wages.[1]	.....	(2)	(3)	.....	Pork	Cwt.	$26.00	$48.00	84.6
Stumpage	.....	$1.50	$3.50	133.3	Lard	Lb.	.115	.27	134.8
Mileage	.....	8.00	[4]11.20	40.0	Hay	Ton.	13.90	27.00	94.2
Flour	Bbl.	4.90	11.20	128.6	Oats	Bu.	.515	1.10	113.6
Tea	Lb.	.23	.45	95.7	Axes	Doz.	7.50	15.25	103.3
Beans	Cwt.	2.05	4.90	139.0	Peavies	do.	15.25	25.50	67.2
Molasses	Gal.	.385	1.00	159.7	Crosscut saws	Each	2.58	4.75	84.1
Beef	Cwt.	20.00	27.00	35.0	Oil (paraffin)	Gal.	.195	.245	25.6

[a] Data taken from Commerce Reports (Washington) for May 24, 1920, p. 1115.
[1] Including board.
[2] $28 to $32.
[3] $70 to $85.
[4] $3.20 of this amount is for fire protection.

Railway Strikes in Austria and Jugoslavia.

SIMULTANEOUS railway strikes suddenly broke out around the middle of April in Jugoslavia and Austria. Vienna and the other industrial centers in the latter country were threatened with immediate starvation. The Austrian strike is explained as a spontaneous attack of nerves among the employees, and was not officially authorized by the trade-unions.[1]

Under these circumstances the Socialist Party in Austria issued a strongly worded appeal [1] to the strikers to let provision trains through. This was, on the whole, obeyed, but the incident shows what it means to live on the very edge of famine. Vienna had consumed its last sack of flour when the strike ended. The demand of the strikers was for a very large increase of wages. The strike took place, says the Arbeiter Zeitung,[2] against the advice of the trade-union officials and probably in obedience to communistic influences, which, it is said, have been spreading much of late among the working classes. For this occasion, a crisis which would have led to complete anarchy has been averted. Dr. Loewenfeld-Russ, State secretary for food supply, sent in his resignation when the strike broke out, as he could no longer hold himself responsible for the feeding of Vienna. He was, however, begged to remain at his post, in the hope, which has been realized, of a speedy termination of the struggle.

Creation of a Labor Army in Russia.

THE Berner Tagwacht [3] reproduces a proclamation of Trotsky, originally published in Pravda, on the occasion of the conversion of the Soviet army into a labor militia. The text of the proclamation is as follows:

1. The approaching termination of civil war and the favorable change in the foreign relations of Soviet Russia place the question of a far-reaching reform in the foreground of consideration.
2. As long as the bourgeoisie in the larger States possesses the power our socialistic republic can not be regarded as secure. It is therefore necessary that we should retain our means of defense.
3. During the period of transition the formation of a red militia offers the best guaranty.
4. The red militia must be in close connection with increasing production in certain important branches of industry, and must at the same time retain its military efficiency.
5. Whole regiments, brigades, and divisions are to be consigned to branches of industry.
6. The red militia of laborers and peasants who have received a training during the war can at any time be summoned to arms against the enemy.
7. The command of every militia unit is to be composed of the leading elements of the local proletariat.
8. Courses for the training of commanders are to be instituted.
9. The military training is to consist of instruction of the young in military duties and training of conscripts in short periods every year (supplementary courses).
10. The organization of the corps is in every respect to be based on the principle of the general obligation to work. As the militia is intended to prepare the transformation of the Russian people into an armed communistic nation, the organization must retain the character of a dictatorship of the working classes.

[1] Neue Freie Presse. Vienna, Apr. 19, 1920.
[2] Arbeiter-Zeitung. Vienna, Apr. 18, 1920.
[3] Berner Tagwacht. Bern, Apr. 13, 1920.

DIRECTORY OF LABOR OFFICIALS IN UNITED STATES AND CANADA.

(Bureaus of Labor, Employment Offices, Industrial Commissions, State Compensation Insurance Funds, Compensation Commissions, Minimum Wage Boards, Factory Inspection Bureaus, and Arbitration and Conciliation Boards.)

UNITED STATES.

Designation of office and name and address of official.	Salary per annum. [a]
Department of Labor:	
Hon. William B. Wilson, Secretary	$12,000
Hon. Louis F. Post, Assistant Secretary	5,000
Address: 1712 G Street NW., Washington, D. C.	
Bureau of Labor Statistics—	
Dr. Royal Meeker, commissioner	5,000
Address: 1712 G Street NW., Washington, D. C.	
Bureau of Immigration—	
Anthony Caminetti, commissioner general	5,000
Address: 1712 G Street NW., Washington, D. C.	
Bureau of Naturalization—	
Richard K. Campbell, commissioner	4,000
Address: 1712 G Street NW., Washington, D. C.	
Children's Bureau—	
Miss Julia C. Lathrop, chief	5,000
Address: Twentieth Street and Virginia Avenue NW., Washington, D. C.	
Employment Service—	
John B. Densmore, director general	6,000
Address: Twentieth Street and Virginia Avenue NW., Washington, D. C.	
Division of Conciliation—	
Hugh L. Kerwin, director	5,000
Address: 1712 G Street NW., Washington, D. C.	
Women's Bureau—	
Miss Mary Anderson, director	5,000
Address: Twentieth Street and Virginia Avenue NW., Washington, D. C.	
United States Housing Corporation—	
Robert Watson, director	5,000
Address: Homer building, Thirteenth and G Streets NW., Washington, D. C.	
United States Employees' Compensation Commission:	
John J. Keegan, chairman	4,000
Mrs. Frances C. Axtell	4,000
Charles H. Verrill	4,000
S. R. Golibart, jr., secretary	3,000
John W. Trask, medical director	[1]
S. D. Slentz, attorney	3,000
Robert J. Hoage, chief statistician	3,500
Address of commission: 1730 D Street NW., Washington, D. C.	
United States Board of Mediation and Conciliation:	
Martin A. Knapp, chairman	[2]
William L. Chambers, commissioner	7,500
Whitehead Kluttz, assistant commissioner	5,000
William J. Hoover, secretary	3,000
Address of board: 920–926 Southern Building, Washington, D. C.	

[1] Employed by U. S. Public Health Service and receives no compensation from the U. S. Employees' Compensation Commission. Ranks as major.

[2] Receives salary as United States circuit court judge, but no compensation from the Board of Mediation and Conciliation.

[a] Omission of salary paid and of explanatory note indicates that the Bureau has received no information.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Alabama.	
Child Welfare Commission:	
Thomas E. Kilby (ex officio), governor, chairman.	
Child welfare department—	
Mrs. L. B. Bush, director	$3,000
Address of commission: Montgomery.	
Compensation Commissioner:	
Mrs. Marie B. Owen (ex officio), director department of archives and history	.....
Address: Montgomery.	
United States Employment Service (director not yet appointed).	
Alaska.	
Territorial Mine Inspector:	
B. D. Stewart, Juneau	3,000
(No other special labor officials.)	
Arizona.	
State Mine Inspector:	
G. H. Bolin, Phoenix	3,000
United States Employment Service:	
Hywel Davies, Federal director for State	1
Address: Masonic Temple, Phoenix.	
Arkansas.	
Bureau of Labor and Statistics:	
Thomas A. Wilson, commissioner, Room 129A, State Capitol, Little Rock	2,400
Free employment bureau—	
E. I. McKinley, deputy commissioner, manager, Room 129, State Capitol, Little Rock	1,800
Boiler inspection department—	
J. D. Newcomb, jr., chief inspector, Room 129A2, State Capitol, Little Rock	2,500
Minimum wage commission—	
Miss Mary Honora McCabe, secretary	[3]
Mrs. J. G. Spurgeon	[3]
Address of commission: State Capitol, Little Rock.	
United States Employment Service:	
Thomas A. Wilson, Federal director for State, Little Rock	1
California.	
Bureau of Labor Statistics:	
John P. McLaughlin, commissioner, 948 Market Street, San Francisco	4,000
Public employment bureaus—	
John A. Kelly, superintendent, 933 Mission Street, San Francisco.	[4]
Industrial Accident Commission:	
Will J. French, chairman	5,000
A. J. Pillsbury	5,000
A. H. Naftzger	5,000
H. L. White, secretary	3,150
H. M. Wolflin, superintendent of safety	5,000
Dr. M. R. Gibbons, medical director	[5] 3,600

[3] No salary.
[4] Receives $2,400 per annum as assistant Federal director of U. S. Employment Service.
[5] Part time.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
California—Concluded.	
Industrial Accident Commission—Concluded.	
A. E. Graupner, attorney	$4,000
F. B. Lord, manager, compensation department	3,150
Address of commission: 525 Market Street, San Francisco.	
State compensation insurance fund—	
C. W. Fellows, manager	10,000
Industrial Welfare Commission:	
A. B. C. Dohrman, chairman	[6] 10
Mrs. Katherine Philips Edson, executive officer	[6] 10
Alexander Goldstein	[6] 10
Walter G. Mathewson	[6] 10
Address of commission: 525 Market Street, San Francisco.	
Commission of Immigration and Housing:	
Simon J. Lubin, president	([7])
Most Rev. E. J. Hanna, D. D., vice president	([7])
Mrs. Frank A. Gibson	([7])
J. H. McBride, M. D	([7])
Paul Scharrenberg, secretary	([7])
R. Justin Miller, attorney and executive officer	4,000
Address of commission: 525 Market Street, San Francisco.	
United States Employment Service:	
John P. McLaughlin, Federal director for State, 933 Mission Street, San Francisco	1
Colorado.	
Bureau of Labor Statistics:	
W. L. Morrissey, deputy State labor commissioner and chief factory inspector, Denver	2,500
Public employment offices—	
W. L. Morrissey, deputy State labor commissioner and chief factory inspector, Denver	
Industrial Commission:	
Joseph C. Bell, chairman	4,000
Hiram E. Hilts	4,000
William I. Reilly	4,000
H. E. Curran, secretary	3,000
William F. Mowry, chief of claim department	3,000
Address of commission: State capitol Building, Denver.	
State compensation insurance fund—	
Thomas P. Kearney, manager	3,000
Minimum wage commission—	
(According to an act passed by the 1917 legislature and effective July 20, 1917, the State industrial commission performs the duties of the minimum wage commission.)	
United States Employment Service:	
W. L. Morrissey, Federal director for State, Denver	840
Connecticut.	
Department of Labor and Factory Inspection:	
William S. Hyde, commissioner, Hartford	3,500
State employment offices—	
William S. Hyde, commissioner, Hartford	

[6] Per day; and expenses when commission is in session.
[7] No salary, but allowed expenses incurred while commission is in session.

Directory of Labor, Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Connecticut—Concluded.	
Board of Compensation Commissioners:	
Frederic M. Williams, chairman, Room 4, County Courthouse, Waterbury	$4,500
George E. Beers, 42 Church Street, New Haven	4,500
Edward T. Buckingham, 1024 Main Street, Bridgeport	4,500
George B. Chandler, 54 Church Street, Hartford	4,500
Dr. James J. Donohue, Central Building, Norwich	4,500
State Board of Mediation and Arbitration:	
Edward W. Broder, Hartford	[3]
George L. Fox, New Haven	[3]
Patrick F. O'Mara, New Haven	[3]
United States Employment Service:	
William S. Hyde, Federal director for State, Hartford	1
Delaware.	
Labor Commission:	
J. Edgar Rhoads, chairman	[3]
John H. Hickey	[3]
Thomas C. Frame, jr.	[3]
George A. Hill	[3]
Miss Helen S. Garrett	[3]
Miss M. Edna Palmer, secretary	100
Address of commission: Wilmington.	
Child-labor division—	
Charles A. Hagner, chief, 4019 du Pont Building, Wilmington	1,800
Women's labor division—	
Miss M. Edna Palmer, assistant, 4019 du Pont Building, Wilmington	1,000
Inspector of canneries—	
Dr. William R. Messick, Lewes	[8] 1,000
Industrial Accident Board:	
Sylvester D. Townsend, jr., president	2,500
Harry Mayer	2,500
Volley M. Murray	2,500
Charles H. Grantland, secretary	2,500
Address of board: Dover.	
District of Columbia.	
Minimum Wage Board:	
Jesse C. Adkins, chairman	[3]
Joseph A. Berberich	[3]
Miss Ethel M. Smith	[3]
Miss Clara E. Mortenson, secretary	2,500
Address of board: District Building, Washington, D. C.	
Florida.	
Office of State Labor Inspector:	
J. C. Privett, State labor inspector, Room 6, Baldwin Building, Jacksonville	1,800
United States Employment Service:	
J. C. Privett, Federal director for State, 120 West Bay Street, Jacksonville	1

[3] No salary.

[8] And $500 for upkeep of automobile.

Directory of Labor, Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Georgia.	
Department of Commerce and Labor:	
H. M. Stanley, commissioner, Atlanta	$3,600
United States Employment Service:	
H. M. Stanley, Federal director for State, 318 State Capitol, Atlanta	1
Hawaii.	
Industrial Accident Boards:	
County of Hawaii—	
W. J. Stone, chairman, Hilo	(9)
City and county of Honolulu (Oahu)—	
F. E. Steere, chairman, Honolulu	(9)
County of Kauai—	
J. M. Lydgate, chairman, Lihue, Kauai	(9)
County of Maui—	
William A. McKay, chairman, Wailuku, Maui	(9)
Idaho.	
Labor Commission (for the adjustment of labor disputes):	
W. J. McVety, chairman and acting labor commissioner, Boise	3,650
Industrial Accident Board:	
Frank J. Clayton, chairman	3,000
George H. Fisher	3,000
Lawrence E. Worstell	3,000
Jno. D. Case, secretary	(b)
Address of board: Boise.	
State Insurance Fund:	
D. W. Church, manager, Boise	4,000
Illinois.	
Department of Labor:	
Barney Cohen, director, State Capitol, Springfield	5,000
Division of factory inspection—	
Robert S. Jones, chief inspector, 1543 Transportation Building, Chicago	3,000
Division of labor statistics—	
W. C. Lewman, State superintendent of free employment offices, State Capitol, Springfield	3,000
Division of private employment agencies—	
John J. McKenna, chief inspector, 608 South Dearborn Street, Chicago	3,000
Industrial commission—	
Charles S. Andrus, chairman	5,000
Peter J. Angsten (representing employers)	5,000
Omer N. Custer (representing employers)	5,000
Robert Eadie (representing employees)	5,000
James A. Culp (representing employees)	5,000
Peter B. Carey, security supervisor	3,300
Dr. P. B. Magnuson, medical director	(10)
Address of board: 303–318 City Hall Square Building, Chicago.	
United States Employment Service:	
W. C. Lewman, Federal director for State, Chicago	1

[9] No salary, but allowed necessary traveling expenses.
[10] General fund for medical assistance, $10,000.
[b] Salary fixed by the board.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Indiana.	
Industrial Board:	
Samuel R. Artman, chairman	$4,000
Kenneth L. Dresser	4,000
——— ——— (vacancy).	
Edgar A. Perkins	4,000
Thomas Roberts	4,000
Edward J. Boleman, secretary	2,500
Address of board: Room 431, Statehouse, Indianapolis.	
Department of factories, buildings, and workshops—	
George W. Greenleaf, chief inspector	2,000
Address of department: Room 413, Statehouse, Indianapolis.	
Department of boilers—	
J. F. Geiger, chief inspector	2,000
Address of department: Room 413, Statehouse, Indianapolis.	
Department of mines and mining—	
Cairy Littlejohn, chief inspector	2,000
Address of department: Room 413, Statehouse, Indianapolis.	
Department of women and children—	
Mrs. Arthur T. Cox, director	2,000
Address of department: Room 416, Statehouse, Indianapolis.	
United States Employment Service:	
Fred Kleinsmith, Federal director for State, Statehouse, Indianapolis	[11] 250
Iowa.	
Bureau of Labor Statistics:	
A. L. Urick, commissioner, Des Moines	3,000
Free employment bureau—	
George B. Albert, clerk, Des Moines	1,500
Workmen's Compensation Service:	
A. B. Funk, industrial commissioner	3,300
Ralph Young, deputy commissioner	2,400
Ray M. Spangler, secretary	1,800
Dr. Oliver J. Fay, medical counsel	[5] 900
Address: State House, Des Moines.	
United States Employment Service:	
A. L. Urick, Federal director for State, 114 Courthouse, Des Moines	1
Kansas.	
Department of Labor and Industry:	
J. H. Crawford, commissioner, Statehouse, Topeka	3,000
Free employment office—	
J. H. Crawford, director, Statehouse, Topeka	
Industrial Welfare Commission:	
J. H. Crawford, chairman	[12]
R. R. Baer	[12]
Mrs. A. C. Mitchell	[12]
Miss Linna E. Bresette, secretary	2,000
Address of commission: Statehouse, Topeka.	
United States Employment Service:	
J. H. Crawford, Federal director for State, Statehouse, Topeka	1

[5] Part time. [11] Per month. [12] Actual expenses.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Kentucky.	
Department of Agriculture, Labor and Statistics:	
W. C. Hanna, commissioner of agriculture, labor, and statistics, Frankfort	$2,500
Pat Filburn, State labor inspector	1,200
——— ——— (vacancy) State woman-labor inspector, 605 Republic Building, Louisville.	
Workmen's Compensation Board:	
Alvis S. Bennett, chairman	3,500
Clyde R. Levi	3,500
Felix S. Dumas	3,500
Charles J. Howes, secretary	2,500
Address of board: Frankfort.	
Louisiana.	
Bureau of Labor and Industrial Statistics:	
Frank E. Wood, commissioner, suite 626, Maison Blanche Annex, New Orleans	[13] 2,400
Office Factories Inspector of Orleans Parish:	
Mrs. Martha D. Gould, factory inspector of Orleans Parish, Room 11, City Hall, New Orleans	1,080
United States Employment Service:	
Levering Moore, Federal director for State, 612 Carondelet Street, New Orleans	1
Maine.	
Department of Labor and Industry:	
Roscoe A. Eddy, commissioner of labor, Statehouse, Augusta	2,000
Industrial Accident Commission:	
Arthur L. Thayer, chairman	3,500
Arthur L. Robinson, associate legal member	3,000
G. Waldron Smith (ex officio), insurance commissioner	625
Roscoe A. Eddy (ex officio), labor commissioner	1,000
Melvin H. Simmons, clerk	2,000
Address of commission: Augusta.	
State Board of Conciliation and Arbitration:	
Frank H. Ingraham, chairman, Rockland	[14] 5
John Houston, Guilford	[14] 5
E. A. Cartret, secretary, Westbrook	[14] 5
United States Employment Service:	
H. B. Brawn, Federal director for State, 4 School St. Place, Box 22, Augusta	1,500
Maryland.	
State Board of Labor and Statistics:	
Charles J. Fox, chairman	2,500
Aquilla F. Robinson	500
Louis Satlen	500
Address of board: St. Paul and Saratoga streets, Baltimore.	
State Industrial Accident Commission:	
Robert E. Lee, chairman	5,000
Joseph B. Harrington	5,000
C. I. T. Gould	5,000

[13] And traveling expenses. [14] Per day, and railroad fare and expenses.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Maryland—Concluded.	
State Industrial Accident Commission—Concluded.	
Worthington P. Wachter, secretary	$2,500
J. Lloyd Harshman, director of claims	2,200
Dr. Robert P. Bay, chief medical examiner	2,000
Address of commission: 741 Equitable Building, Baltimore.	
State accident fund—	
James E. Green, superintendent	3,000
Massachusetts.	
Department of Labor and Industries:	
General E. Leroy Sweetser, commissioner	7,500
Miss Ethel M. Johnson, assistant commissioner	3,000
Associate Commissioners: (Exercising also the functions formerly vested in the Board of Conciliation and Arbitration and the Minimum Wage Commission.)	
Edward Fisher, chairman	4,000
Herbert P. Wasgatt	3,000
Samuel Ross	3,000
Division of industrial safety—	
John P. Meade, director	3,000
Division of statistics—	
Roswell F. Phelps, director	3,000
Division of standards—	
Major Francis Meredith, director	3,000
Industrial Accident Board:	
William W. Kennard, chairman	5,500
Frank J. Donahue	5,000
David T. Dickinson	5,000
Joseph A. Parks	5,000
Chester E. Gleason	5,000
John H. Cogswell	5,000
Robert E. Grandfield, secretary	4,500
Francis D. Donoghue, M. D., medical adviser	4,500
V. Otis Robertson, director vocational training division	4,000
Address of board: Statehouse, Boston.	
United States Employment Service:	
General E. Leroy Sweetser, Federal director for State: 473 Statehouse, Boston	1
Michigan.	
Department of Labor:	
R. H. Fletcher, commissioner, Lansing	4,500
Free employment bureaus—	
R. H. Fletcher, commissioner, Lansing	
Industrial Accident Board:	
James A. Kennedy, chairman	3,500
Charles H. Hayden	3,500
Thomas B. Gloster	3,500
Fred S. Johnson, secretary	2,500
Address of board: Lansing.	
State Compensation Accident Fund (under Department of Insurance):	
William T. Shaw, manager, Lansing	3,300
United States Employment Service:	
Perry J. Ward, Federal director for State, Detroit	1

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Minnesota.	
Department of Labor and Industries:	
John P. Gardiner, commissioner, St. Paul	$3,600
Bureau of women and children—	
Miss Louise Schutz, superintendent, St. Paul	1,800
Minimum Wage Commission:	
John P. Gardiner, chairman (ex officio).	
Charles W. Gordon	[9]
Eliza P. Evans, secretary	1,800
Address of commission: State Capitol, St. Paul.	
State Board of Arbitration:	
Robert F. Pack, president (representing employers)	[15] 5
George F. Buehler, secretary (representing employees)	[15] 5
——— ——— (vacancy).	
Herbert W. Southworth, executive clerk (nonmember)	2,100
Address of board: State Capitol, St. Paul.	
United States Employment Service:	
John P. Gardiner, Federal director for State, 316 Guardian Life Building, St. Paul	1
Mississippi.	
Department of State Factory Inspection:	
A. B. Hobbs, factory inspector, Jackson	2,400
United States Employment Service:	
A. B. Hobbs, Federal director for State, Jackson	1
Missouri.	
Bureau of Labor Statistics:	
William H. Lewis, commissioner, Jefferson City	3,500
Department of industrial inspection—	
Lee Dunlap, chief inspector, 326 Sheidley Building, Kansas City.	2,500
Workmen's Compensation Commission:	
(Personnel not yet announced.)	
United States Employment Service:	
William H. Lewis, Federal director for State, 11 North Seventh Street, St. Louis	1
Montana.	
Department of Labor and Industry:	
W. J. Swindlehurst, commissioner, Helena	2,500
Industrial Accident Board:	
A. E. Spriggs, chairman	6,000
G. P. Porter (ex officio), State auditor and commissioner of Insurance	[3]
W. J. Swindlehurst (ex officio), treasurer of board and commissioner of labor	[3]
G. G. Watt, secretary	2,700
Address of board: Helena.	
Bureau of Safety Inspection:	
W. B. Orem, inspector, quartz mine department, Butte	2,700
George Griffin, inspector, coal mine department, Helena	2,700
Richard Moran, inspector, boiler department, northern district, Helena	2,700

[3] No salary.
[9] No salary, but allowed necessary traveling expenses.
[15] Per day, for actual service, and 3 cents a mile for traveling expenses.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Montana—Concluded.	
Bureau of Safety Inspection—Concluded.	
R. A. Prater, inspector, boiler department, southern district	$2,700
F. J. Coburn, inspector, boiler department, western district, Butte	2,700
United States Employment Service:	
W. J. Swindlehurst, Federal director for State, Helena	(3)
Nebraska.	
Department of Labor:	
Frank A. Kennedy, secretary of labor and compensation commissioner, State Capitol, Lincoln	5,000
Minimum Wage Commission:	
(Inactive; no appropriation.)	
Board of Mediation and Investigation:	
(Personnel not yet announced.)	
Bureau of Child Welfare (under Department of Public Welfare):	
Mrs. Emily P. Hornberger, director, Lincoln	2,400
United States Employment Service:	
Frank A. Kennedy, Federal director for State, State Capitol, Lincoln	1
Nevada.	
Labor Commissioner's Office:	
Frank W. Ingram, labor commissioner, Carson City	1,500
Industrial Commission:	
George D. Smith, chairman	5,000
John M. Gray	1,800
Frank W. Ingram	1,800
Dr. Donald Maclean, chief medical adviser	1,800
Address of commission: Carson City.	
New Hampshire.	
Bureau of Labor:	
John S. B. Davie, labor commissioner, Concord	2,500
State Board of Conciliation and Arbitration:	
John H. Neal, chairman, Portsmouth	(3)
George A. Tenney (representing employers), Claremont	(3)
Michael F. Connelly (representing employees), Manchester	(3)
New Jersey.	
Department of Labor:	
Lewis T. Bryant, commissioner, Trenton	7,500
Inspection bureau—	
John I. Holt, assistant commissioner	3,000
Bureau of structural inspection—	
Charles H. Weeks, chief	3,500
Bureau of electrical equipment—	
Rowland H. Leveridge, chief	3,500
Bureau of hygiene and sanitation—	
John Roach, chief	3,500
Workmen's compensation bureau—	
William E. Stubbs, secretary	3,500
Bureau of industrial statistics—	
Lillian Erskine, chief	2,500

[3] No salary.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
New Jersey—Concluded.	
Department of Labor—Concluded.	
Engineers license and steam boiler inspection bureau—	
Joseph F. Scott, chairman	$2,500
State employment bureau—	
Russell J. Eldridge, acting director	1,800
Bureau of Explosives—	
Charles H. Weeks, acting chief	[16]
Bureau of Mines—	
John Roach, acting chief	[17]
United States Employment Service:	
Lewis T. Bryant, Federal director for State, State Capitol, Trenton	1
New Mexico.	
Mine Inspector:	
J. E. Sheridan, Silver City	[13] 2,400
(No other special labor officials.)	
New York.	
Industrial Commission:	
Edward F. Boyle, chairman	8,000
Miss Frances Perkins	8,000
Henry D. Sayer	8,000
James M. Lynch	8,000
Cyrus W. Phillips	8,000
Edward W. Buckley, secretary	6,000
Bernard L. Shientag, counsel	7,000
Address of commission: 124 East 28th Street, New York.	
Bureau of workmen's compensation—	
William C. Archer, second deputy commissioner	6,000
Dr. Raphael Lewy, chief medical examiner, 124 East 28th Street, New York	6,000
State insurance fund—	
Leonard W. Hatch, manager, 124 East 28th Street, New York	7,000
Bureau of employment—	
David S. Flynn, director, 124 East 28th Street, New York	4,000
Bureau of statistics and information—	
E. B. Patton, chief statistician, State Capitol, Albany	4,000
Bureau of industries and immigration—	
Marian K. Clark, chief investigator, 124 East 28th Street, New York	3,000
Bureau of inspection—	
James L. Gernon, first deputy commissioner, State Capitol, Albany; 124 East 28th Street, New York	6,000
Bureau of mediation and arbitration—	
Edward D. Jackson, third deputy commissioner, State Capitol, Albany	6,000
Bureau of industrial code—	
Richard J. Cullen and T. C. Eipper, deputy commissioners, 124 East 28th Street, New York	[18] 4,000
Bureau of women in industry—	
Miss Nelle Swartz, chief, 124 East 28th Street, New York	3,000

[13] And traveling expenses.
[16] Salary included in that of chief of bureau of structural inspection.
[17] Salary included in that of chief of bureau of hygiene and sanitation.
[18] Each.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
New York—Concluded.	
Industrial Commission—Concluded.	
Industrial council—	
Henry D. Sayer, chairman	[3]
Carleton A. Chase	[3]
Richard H. Curran	[3]
Ralph A. Day	[3]
G. E. Emmons	[3]
James P. Holland	[3]
Richard C. Stofer	[3]
Thomas M. Gafney	[3]
Melinda Scott	[3]
M. H. Christopherson	[3]
Edward W. Buckley, secretary, 124 East 28th Street, New York	[3]
United States Employment Service:	
Henry D. Sayer, Federal director for State, 124 East 28th Street, New York	[3]
North Carolina.	
Department of Labor and Printing:	
M. L. Shipman, commissioner, Raleigh	$3,000
United States Employment Service:	
M. L. Shipman, Federal director for State, Raleigh	1
North Dakota.	
Department of Agriculture and Labor:	
J. N. Hagan, commissioner, Bismarck	3,000
Workmen's Compensation Bureau:	
J. N. Hagan, chairman	[3]
S. S. McDonald	2,500
C. A. Marr, secretary	2,200
Address of bureau: Bismarck.	
Industrial Commission: [19]	
Lynn J. Frazier (ex officio), governor	.....
William Langer (ex officio), attorney general	.....
J. N. Hagan (ex officio), commissioner of agriculture and labor	.....
Address of commission: Bismarck.	
United States Employment Service:	
J. N. Hagan, Federal director for State, Bismarck	1
Ohio.	
Industrial Commission:	
T. J. Duffy, chairman	5,000
J. D. Clark	5,000
Herbert L. Eliot	5,000
Robert S. Hayes, secretary	3,000
Address of commission: Columbus.	
Division of workshops and factories—	
Thomas P. Kearns, chief deputy	3,000
Fred C. Lange, director of safety	3,000
Division of statistics and mediation—	
George F. Miles, chief	3,000
Public employment offices—	
George F. Miles, director, Columbus	

[3] No salary.

[19] Operates and conducts all utilities and enterprises owned or administered by the State except those carried on in penal, charitable, or educational institutions.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Ohio—Concluded.	
Industrial Commission—Concluded.	
Workmen's compensation—	
H. E. Baker, director of claims	$2,400
E. E. Watson, chief actuary	4,000
Dr. T. R. Fletcher, acting medical examiner	3,600
United States Employment Service:	
George F. Miles, Federal director for State, Columbus	1
Oklahoma.	
Deparment of Labor:	
C. E. Connally, commissioner, Oklahoma City	
Board of arbitration and conciliation:	2,000
C. E. Connally, commissioner of labor, chairman	
W. A. Murphy, assistant commissioner of labor, secretary	1,800
Austin W. Kenyon (representing employers)	[20] 5
J. C. Powers (representing employers)	[20] 5
A. Simon (representing employees)	[20] 5
J. R. Covington (representing employees)	[20] 5
Hugh Dean (representing agriculture)	[20] 5
J. M. Pierce (representing agriculture)	[20] 5
Address of board: Oklahoma City.	
Industrial Commission:	
Judge Baxter Taylor, chairman	3,000
H. C. Myers	3,000
Mrs. F. L. Roblin	3,000
Fay L. Riggins, secretary	1,800
Address of commission: State Capitol, Oklahoma City.	
United States Employment Service:	
C. E. Connally, Federal director for State, State Capitol, Oklahoma City	1
Oregon.	
Bureau of Labor:	
C. H. Gram, commissioner and factory inspector, Salem	3,000
W. H. Fitzgerald, deputy commissioner, 501 Courthouse, Portland.	1,980
Board of Inspectors of Child Labor:	
Stephen G. Smith, chairman, 65–67 Broadway, Portland	[3]
Mrs. Sarah A. Evans, Portland	[3]
Miss Pauline Kline, Corvallis	[3]
Dr. A. Z. Crayne, Portland	[3]
Mrs. Millie R. Trumbull, secretary, 646–648 Courthouse, Portland.	1,500
State Industrial Accident Commission:	
William A. Marshall, chairman	3,600
J. W. Ferguson	3,600
Will T. Kirk	3,600
Dr. F. H. Thompson, medical adviser	3,000
Address of commission: Salem.	
Industrial Welfare Commission:	
W. L. Brewster, chairman	3,600
Miss Eunice L. Smith	3,600
Amedee M. Smith	3,600
Mrs. Millie R. Trumbull, secretary	[3]
Address of commission: 646–648 Courthouse, Portland.	
Child Welfare Commission:	
Dr. Franklin Thomas, chairman	[3]
Dr. Robert G. Hall	[3]
Mrs. George Schilke	[3]

[3] No salary.

[20] Per day; and necessary expenses.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Oregon—Concluded.	
Child Welfare Commission—Concluded.	
Mrs. Millie R. Trumbull	[3]
W. D. DeVarney	[3]
Mrs. Harriett H. Heller, executive secretary	$2,000
Address of commission: 638 Chamber of Commerce Building, Portland.	
United States Employment Service:	
W. H. Fitzgerald, Federal director and zone clearance officer, 501 Courthouse, Portland	1
Pennsylvania.	
Department of Labor and Industry:	
Clifford B. Connelley, commissioner	10,000
Address of department: Keystone Building, Harrisburg.	
Industrial board—	
Clifford B. Connelley, chairman	
Mrs. Samuel Semple	[21] 10
Otto T. Mallery	[21] 10
James C. Cronin	[21] 10
——— ——— (vacancy).	
Fred J. Hartman, secretary	4,000
Address of board: Keystone Building, Harrisburg.	
Bureau of inspection—	
John H. Walker, chief, Keystone Building, Harrisburg	5,000
Division of hygiene and engineering—	
F. D. Patterson, M. D., chief, Third and North Streets, Harrisburg.	5,000
Bureau of workmen's compensation—	
W. H. Horner, director, Keystone Building, Harrisburg	4,500
Bureau of mediation and arbitration—	
William J. Tracy	4,000
William Young, mediator	3,500
Address of bureau: Keystone Building, Harrisburg.	
Bureau of employment—	
Jacob Lightner, director, Third and North Streets, Harrisburg	3,000
Bureau of rehabilitation—	
S. S. Riddle, chief	5,000
Address of bureau: Keystone Building, Harrisburg.	
Workmen's Compensation Board:	
Harry A. Mackey, chairman	7,500
Benjamin Jarrett, jr	7,000
Paul W. Houck	7,000
Lee Solomon, secretary	5,000
Address of board: North American Building, Philadelphia.	
State Workmen's Insurance Fund:	
William J. Roney, manager, Harrisburg	7,500
Philippine Islands.	
Bureau of Labor (under Department of Commerce and Communications):	
Faustino Aguilar, director, Manila	2,500
Porto Rico.	
Department of Agriculture and Labor:	
Manuel Camuñas, commissioner, San Juan	5,000

[3] No salary. [21] Per day.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Porto Rico—Concluded.	
Department of Agriculture and Labor—Concluded.	
Bureau of labor—	
Carmelo Honoré, chief	$2,415
Workmen's Relief Commission:	
Luis Samalea Iglesias, chairman, attorney at law	3,500
José A. Canals, civil engineer	[22] 10
Dr. José A. Diaz, physician	[22] 10
Carmelo Honoré, chief, bureau of labor	([3])
Abraham Peña, attorney at law	[22] 10
Address of commission: San Juan.	
Rhode Island.	
Bureau of Labor:	
George H. Webb, commissioner, Providence	5,000
Office of Factory Inspectors:	
J. Ellery Hudson, chief inspector, Statehouse, Providence	3,000
Board of Labor (for the adjustment of labor disputes):	
George H. Webb, commissioner of labor, chairman	([3])
William T. Murphy (representing employers)	([3])
William C. Fisher (representing employers)	([3])
Albert E. Hohler (representing employees)	([3])
John H. Powers (representing employees)	([3])
Christopher M. Dunn, deputy commissioner of labor, secretary	2,300
Address of board: Providence.	
United States Employment Service:	
George H. Webb, Federal director for State, Statehouse, Providence	1
South Carolina.	
Department of Agriculture, Commerce, and Industries:	
B. Harris, commissioner, Columbia	2,500
Board of Conciliation and Arbitration:	
B. E. Geer, chairman, Greenville	[23] 10
W. H. McNairy, Chester	[23] 10
H. E. Thompson, Batesburg	[23] 10
South Dakota.	
Office of Industrial Commissioner:	
Charles McCaffree, industrial commissioner, Pierre	([12])
United States Employment Service:	
Charles McCaffree, Federal director for State, State Capitol, Pierre	1
Tennessee.	
Department of Workshop and Factory Inspection:	
F. E. Mayer, chief inspector, 322 Seventh Avenue North, Nashville	2,000
Texas.	
Bureau of Labor Statistics:	
T. C. Jennings, commissioner, Austin	3,000

[3] No salary.
[12] Actual expenses.
[22] Per day for each meeting.
[23] Per day when in attendance, and traveling expenses.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Texas—Concluded.	
Bureau of Labor Statistics—Concluded.	
Woman's division—	
Mrs. Claude De Van Watts, chief	$2,000
Industrial Accident Board:	
J. H. Fowler, chairman	4,000
E. R. York	3,000
J. E. Proctor	3,000
Miss Mamie Edmonson, secretary	2,500
Address of board: Austin.	
Industrial Welfare Commission:	
T. C. Jennings, labor commissioner, chairman	[3]
E. R. York, member of industrial accident board	[3]
Annie Webb Blanton, superintendent of public instruction	[3]
Mrs. Frances E. Sutherland, secretary	1,600
Address of commission: Austin.	
Utah.	
Industrial Commission:	
P. A. Thatcher, chairman	4,000
W. P. Monson	4,000
William M. Knerr	4,000
Carolyn I. Smith, secretary	1,680
Address of commission: State Capitol, Salt Lake City.	
State insurance fund—	
C. A. Caine, manager	3,000
Vermont.	
Office of Commissioner of Industries:	
John S. Buttles, commissioner, Montpelier	3,000
State Board of Conciliation and Arbitration:	
Henry C. Brislin, Rutland	[3]
George O. Gridley, Windsor	[3]
Ashley J. Goss, Danville	[3]
Virginia.	
Bureau of Labor and Industrial Statistics:	
John Hirschberg, commissioner, Richmond	3,000
Industrial Commission:	
Richard F. Beirne, chairman (representing State at large)	4,200
C. G. Kizer (representing employees)	4,200
C. A. McHugh (representing employers)	4,200
A. C. Smith, secretary	3,000
Address of commission: Box 1794, Richmond.	
Washington.	
Bureau of Labor:	
C. H. Younger, commissioner, Olympia	3,000
Industrial Insurance Department:	
H. L. Hughes, chairman	4,200
Fred W. Llewellyn	4,200
Ernest A. Seaborg	4,200
Percy Gilbert, secretary	[24]
F. A. Bird, M. D., chief medical adviser	3,000

[3] No salary.

[24] Salary not fixed by law.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Continued.

Designation of office and name and address of official.	Salary per annum.
Washington—Concluded.	
State Medical Aid Board:	
Dr. John W. Mowell, chairman	$6,000
Martin J. Flyzik (representing employees)	[25] 10
Dr. J. S. Kloeber (representing employers)	[25] 10
R. J. McLean, secretary	3,000
Address of board: Olympia.	
State Safety Board:	
Dr. J. S. Kloeber (representing employers)	([26])
Martin J. Flyzik (representing employees)	([26])
C. H. Younger (ex officio), State labor commissioner	[27] 150
James Bagley (ex officio), State mine inspector	[27] 100
John W. Pace, secretary	[c] 3,600
Address of board: Olympia.	
Industrial Welfare Commission: (Minimum Wage Commission):	
C. H. Younger, chairman, commissioner of labor and ex-officio member of the commission	([3])
Mrs. W. S. Griswold	([3])
Mrs. Geo. P. Hardgrove	([3])
Mrs. W. J. Kennedy	([3])
M. H. Marvin	([3])
Mrs. W. H. Udall, secretary	1,800
Address of commission: Olympia.	
United States Employment Service:	
William C. Carpenter, Federal director for State, 326 Federal Building, Spokane	1,800
West Virginia.	
Bureau of Labor:	
Samuel B. Montgomery, commissioner, Charleston	3,600
State Compensation Commissioner:	
Lee Ott, commissioner, Charleston	6,000
F. J. McAndrews, secretary	[11] 300
M. V. Godbey, chief medical examiner	[11] 200
United States Employment Service:	
Thomas Cairns, Federal director for State, 126 Summers Street, Charleston	1
Wisconsin.	
Industrial Commission:	
George P. Hambrecht, chairman	5,000
Fred M. Wilcox	5,000
Thomas F. Konop	5,000
E. E. Witte, secretary	3,750
Safety and sanitation department—	
R. McA. Keown, engineer	3,750
Workmen's compensation department—	
F. T. McCormick, chief examiner	3,250
Employment department—	
Taylor Frye, director	([3])
Apprenticeship department—	
Walter F. Simon, acting supervisor	1,800

[3] No salary.
[11] Per month.
[25] Per day for 100 days only.
[26] Included in $10 per day mentioned above.
[27] Per month; advisory work.
[c] Also allowed traveling and other necessary expenses when away from office on duties of the board.

Directory of Labor Officials in the United States and Canada—Continued.

UNITED STATES—Concluded.

Designation of office and name and address of official.	Salary per annum.
Wisconsin—Concluded.	
Industrial Commission—Concluded.	
Women's department—	
Miss Maud Swett, director, room 809, Manufacturers' Home Building, Milwaukee	$2,500
Child labor department—	
Taylor Frye, director	3,000
Statistical department—	
A. J. Altmeyer, statistician	2,500
Address of commission: Madison.	
United States Employment Service:	
George P. Hambrecht, Federal director for State, State Capitol, Madison	1
Wyoming.	
Commissioner of Labor and Statistics:	
Harry C. Hoffman, commissioner, Cheyenne	2,500
Workmen's Compensation Department (under treasurer's office):	
A. D. Hoskins, State treasurer	3,000
C. P. Morgan, deputy	1,800
W. B. Sammon, assistant deputy	2,100
Address of department: Cheyenne.	
United States Employment Service:	
Harry C. Hoffman, Federal director for State, Cheyenne	1

CANADA.

Department of Labor:	
Hon. Gideon D. Robertson, minister	[28]
F. A. Acland, deputy minister and editor of the Labor Gazette	[28]
Bryce M. Stewart, director of employment service	[28]
Dr. L. W. Gill, director of technical education	[28]
F. W. Giddens, secretary of department	[28]
Address of department: Ottawa.	
Alberta.	
Commissioner of Labor:	
John W. Mitchell, Calgary	$2,500
Government Employment Bureau:	
William Carnill, Calgary, inspector	[11] 135
M. W. Harris, Edmonton, inspector	[11] 135
Thos. Longworth, Lethbridge, inspector	[11] 135
J. W. Wright, Medicine Hat, inspector	[11] 135
W. G. Patterson, Red Deer, inspector	[11] 125
Albert Oldham, Drumheller, inspector	[11] 125
Factory inspection:	
John M. McLeod, chief inspector	2,200
Workmen's Compensation Board:	
John T. Stirling, chairman	[29] 250
Walter F. McNeill	[29] 200
James A. Kinney	[29] 200
Frederick D. Noble, secretary	[29] 250
Address of board: Qu'Appelle Building, Edmonton.	

[11] Per month. [28] Salaries undergoing revision. [29] Per month; part time.

Directory of Labor Officials in the United States and Canada—Continued.

CANADA—Continued.

Designation of office and name and address of official.	Salary per annum.
British Columbia.	
Department of Labor:	
Hon. J. W. deB. Farris, minister, Victoria	[30]
J. D. McNiven, deputy minister, Victoria	$3,720
Robert J. Stewart, chief factories inspector, Vancouver	2,640
J. Peck, chief boiler inspector, Vancouver	3,900
James McGregor, chief inspector of mines, Victoria	4,620
J. Muirhead, chief electrical energy inspector, Vancouver	2,880
Employment service—	
A. Bruce Powley, general superintendent, Vancouver	2,700
Workmen's Compensation Board—	
E. S. H. Winn, chairman	6,500
Parker Williams	5,000
Hugh Gilmore	5,000
F. W. Hinsdale, secretary	4,200
Address of board: Board of Trade Building, Vancouver.	
Minimum wage board—	
J. D. McNiven, deputy minister of labor, chairman	[3]
Mrs. Helen G. McGill	[3]
Thomas Mathews	[3]
Miss Mabel Agnes Cameron, secretary	1,800
Address of board: Parliament Buildings, Victoria.	
Manitoba.	
Bureau of Labor:	
Hon. George A. Grierson, minister of public works, Winnipeg	.....
Factory inspection—	
Robert A. Stewart, acting chief inspector, 301 Boyd Block, Winnipeg	.....
Employment service—	
C. Bowman, general superintendent, Winnipeg	.....
Fair wage board—	
S. C. Oxton, chairman, deputy minister of public works	.....
W. J. Davidson	.....
J. W. Morley	.....
George Armstrong	.....
Walter Owens	.....
Address of board: Winnipeg.	
Workmen's compensation board—	
H. G. Wilson, commissioner	.....
A. R. D. Patterson	.....
C. W. N. Kennedy	.....
N. Fletcher, secretary	.....
Address of board: Winnipeg.	
Minimum wage board—	
Arthur J. Bennett, chairman	.....
Mrs. Claude Nash	.....
Miss Lynn Flett	.....
James Winning	.....
Charles Hardin	.....
E. McGrath, secretary	.....
Address of board: Winnipeg.	
New Brunswick.	
Factory Commission:	
Kilgour Shives, Cambellton	.....
Emma S. Fiske, St. John	.....
Michael Kelly, St. John	.....

[3] No salary. [30] $6,000 for dual position as attorney general and minister of labor.

Directory of Labor Officials in the United States and Canada—Continued.

CANADA—Continued.

Designation of office and name and address of official.	Salary per annum.
New Brunswick—Concluded.	
Factory Commission—Concluded.	
Charles McDonald, St. John	.....
James Stevens, jr., St. John	.....
Employment Service:	
C. Herford, general superintendent, Halifax, Nova Scotia	.....
Inspection of Factories and Hotels:	
John Kenny, St. John	.....
Workmen's Compensation Board:	
J. A. Sinclair, chairman	.....
F. C. Robinson	.....
S. L. Sugrue	.....
Address of board: St. John.	
Nova Scotia.	
Factory and Mines Inspection (under Department of Public Works):	
Hon. E. H. Armstrong, minister of public works and mines	.....
Hiram Donkin, C. E., deputy minister of public works	.....
Philip Ring, factory inspector	.....
Address: Halifax.	
Employment Service:	
C. Herford, general superintendent, Halifax	.....
Workmen's Compensation Board:	
V. J. Paton, K. C., chairman	.....
Fred W. Armstrong	.....
John T. Joy	.....
Address of board: Halifax.	
Ontario.	
Trades and Labor Branch (under Department of Public Works):	
Hon. W. R. Rollo, minister	[28]
Walter A. Riddell, deputy minister	[28]
Inspectors—	
D. M. Medcalf, chief boiler inspector	[28]
James T. Burke, chief factory, shop, and office inspector	[28]
William C. McGhie, chairman of board of examiners, stationary and hoisting engineers	[28]
Address: Parliament Buildings, Toronto.	
Workmen's Compensation Board:	
Samuel Price, chairman	$10,000
——— ——— (vacancy), vice chairman	8,500
George A. Kingston, commissioner	7,500
N. B. Wormith, secretary	4,490
T. Norman Dean, statistician	3,900
W. N. Hancock, claims officer	4,490
W. E. Struthers, medical officer	4,740
D. E. Bell, medical officer	3,990
Address of board: Toronto.	
Quebec.	
Department of Public Works and Labor:	
Hon. Antonin Galipeault, minister, Quebec	.....
Inspection of industrial establishments and public buildings—	
Louis Guyon, chief inspector, 59 Notre Dame Street, East, Montreal	.....

[28] Salaries undergoing revision.

Directory of Labor Officials in the United States and Canada—Concluded.

CANADA—Concluded.

Designation of office and name and address of official.	Salary per annum.
Quebec—Concluded.	
Department of Public Works and Labor—Concluded.	
Registrar of boards of conciliation and arbitration—	
Felix Marois, Quebec	.....
Employment bureaus—	
Joseph Ainey, general superintendent, 10 St. James Street, Montreal	.....
Housing director—	
Dr. Emile Nadeau	.....
Saskatchewan.	
Bureau of Labor and Industries:	
Thomas M. Molloy, commissioner	.....
T. Withy, chief factories inspector	.....
E. Pierce, chief mine inspector	.....
Address of bureau: Regina.	
Government employment branch—	
G. E. Tomsett, general superintendent, Regina	.....
Minimum wage board—	
W. F. Dunn, chairman, Moose Jaw	.....
Mrs. Austin Bothwell, Regina	.....
H. Perry, Regina	.....
Mrs. M. I. Robertson, Saskatoon	.....
J. F. Cairns, Saskatoon	.....
T. M. Molloy, commissioner of labor, secretary, Regina	.....

PUBLICATIONS RELATING TO LABOR.

Official—United States.

CALIFORNIA.—*Commission of Immigration and Housing. Bulletin of information for immigrants. Sacramento, 1920. 51 pp.*

—— *Industrial accident commission. Report of decisions for the year 1919. Workmen's compensation safety and insurance act. Vol. 6. Sacramento, 1920. 333 pp.*

—— —— *Steam shovel and locomotive crane safety orders. Effective June 1, 1920. Sacramento, 1920. 10 pp. Illustrated.*

—— *State board of education. Vocational education. Compulsory part-time education. Sacramento, February, 1920. 61 pp. Bulletin No. 23.*

This information, in the form of definite questions and answers upon the conditions and the application of the part-time education act of California, will be of special value to teachers, school authorities, employers of youth, and any others subjest to the provisions of the act.

ILLINOIS.—*Legislative Reference Bureau. Farm tenancy and rural credits. Springfield, 1919. pp. 1081–1123. Constitutional convention. Bulletin No. 13.*

INDIANA.—*Board of industrial aid for the blind. Fifth annual report—for the fiscal year ending September 30, 1919. Fort Wayne, 1920. 31 pp.*

MASSACHUSETTS.—*Commission on the Necessaries of Life. Report. Boston, February, 1920. 182 pp. House No. 1500.*

Contains the findings of the commission since its assumption of office on August 1, 1919, relative to the causes and facts of the high cost of living. The report does not go deeply into economic theory but considers the subject from the layman's point of view, in two parts devoted, respectively, to "General principles" and "The various elements comprising the necessaries of life."

—— *Industrial accident board. Sixth annual report. Boston, 1919. 130 pp. Public Document No. 105.*

A review of this report appears on pp. 165 and 166 of this number of the MONTHLY LABOR REVIEW.

NEW YORK.—*Industrial commission. Proceedings of the fourth industrial safety congress, Syracuse, December 1–4, 1919. Albany, [1920]. 242 pp.*

Addresses of special interest on the opening day were on safety from the viewpoint of organized employers, by Richard C. Stofer, and Safety from the viewpoint of organized employees, by James P. Holland. The remaining days of the congress were divided into foreman's day, safety man's day, and inspector's day.

—— *Oswego State Normal School. Courses for vocational teachers and supervisors. Summer session, July 6–August 14, 1920. Oswego, N. Y. 44 pp.*

A complete outline of the courses offered by the industrial teacher training department to prepare students to teach industrial work in cities and towns of less than 25,000 inhabitants. Special features of the summer session of 1920 are organization of part-time schools; special conference on part-time schools; foreman training; methods of teaching shop and related subjects; shop and drawing subjects; English for shop teachers.

—— (CITY)—*Board of estimate and apportionment. Compensation to skilled trades and allied occupations in the employ of the city of New York for the years 1916 to 1920, inclusive. [New York City, 1920.] 5 pp.*

This report is noted briefly on pages 109 and 110 of this issue of the REVIEW.

NORTH DAKOTA.—*Industrial commission. The North Dakota industrial program. Bismarck, May 1, 1920. 86 pp.*

This pamphlet constitutes a report on the organization and progress of the North Dakota State industries, and the administration of related laws, protecting and promoting agriculture and other industries in the State, enacted and established by the sixteenth session of the North Dakota Legislative Assembly. It gives a brief history of the organization of the nonpartisan league and states its purposes and what it has accomplished through the election of a government and legislature "favorable to the establishment and operation by the State of the industries and facilities necessary to insure the efficient and equitable financing of farm operations and economic marketing of farm products so as to protect the farmers' earnings and to conserve soil fertility." The plan of the farmers' organization is given in outline and may be summarized as follows: Authority to establish and to operate the State industries with commensurate responsibility should be reposed in a small board elected by the people, which should have absolute authority to appoint and to dismiss the managers or directors of each of the industries or enterprises; these managers or directors in turn to have like power to appoint or dismiss and be responsible for all experts and employees within each industry or enterprise. The State industries should be operated for service and not for profit, but charges for services should be ample to cover all costs and for the building up of reserves. The State should establish and operate its own bank for the financing of all State departments, industries, and enterprises for the handling of all public funds and for the making of farm loans and stabilization of credit in all industries carried on in the State. The recall of elective State officers is necessary in order to enable the people to exercise an effective control over those responsible for the management of the State industries.

PENNSYLVANIA.—*Department of Public Instruction. Proceedings of educational congress, November 17 to 22, 1919. Harrisburg, 1920. 673 pp. Chart.*

Among the subjects discussed were Americanization and its value to the employer and employee, and vocational education, especially in its relation to industry.

TEXAS.—*University. The training of workers in trades and industries. Austin, January 5, 1920. 16 pp. University of Texas Bulletin No. 2002.*

Outlines in general the field of vocational education in Texas. The University of Texas offers courses for teacher trainers preparing to take charge of classes in trade and industrial subjects to be organized in industrial centers of the State in cooperation with the State Board of Vocational Education.

WASHINGTON—*Mine inspector. Annual report of coal mines for the year ending December 31, 1919. Olympia, 1920. 53 pp. Tables.*

Coal production for 1919 was 3,059,580 short tons as compared with 4,128,424 tons for the previous year. The coke output was 65,332 tons as compared with 144,349 tons for the previous year. Nineteen fatal accidents occurred, 14 inside and 5 outside the mines; and 440 nonfatal accidents for which final settlements were made, the largest number of the latter (181) being from falls of rock and coal, as in the past. No accidents are counted with a time loss of less than seven days as they are not compensable.

UNITED STATES.—*Bureau of Efficiency. Report for the period from November 1, 1918, to October 31, 1919. Washington, 1919. 39 pp.*

A portion of the report is devoted to a statement of estimated cost to the Government of granting a bonus to Federal employees; and a brief review of the work of the bureau on reclassification of salaries of Government employees prior to and in connection with the work of the Joint Commission on Reclassification of Salaries.

—— *Department of Commerce. Bureau of Foreign and Domestic Commerce. Commercial handbook of China, vol. 2. Washington, 1920. 470 pp. Miscellaneous series, No. 84.*

UNITED STATES.—*Department of Commerce. Bureau of the Census. Census of electrical industries, 1917. Electric railways. Washington, 1920. 177 pp.*

Includes a chapter giving tables showing the number of employees and the amount of salaries and wages paid in the census year 1917 with comparative statement for the years 1907 and 1912. Two tables show the ratio of salaries and wages to operating expenses and to operating revenues, respectively.

—— *Department of the Interior. Bureau of Education. Statistics of State school systems, 1917–18. Washington,D. C., 1920. Bulletin, 1920, No. 11.*

Among the statistics discussed in this bulletin are those regarding teachers and teachers' salaries, on pages 39–40. The report shows that between 1880 and 1918 there was a general decrease in the percentage of men teachers, ranging from 42.8 to 16.1 per cent. In industrial States, where more remunerative occupations are open to them, men do not go into the teaching profession. The report also points out that an examination of average yearly salaries during the period shown leads to the conclusion that unless some substantial salary increases are made young men teachers will not be found in the profession in a few years.

—— —— *Bureau of Mines. Coal-mine fatalities in the United States, 1919, and coal-mine statistics supplementing those published in Bulletin 115. By Albert H. Fay. List of permissible explosives, lamps, and motors tested prior to January 31, 1920. Washington, 1920. 86 pp. Bulletin 196.*

Reports a reduction of 10.58 per cent in coal-mine fatalities for 1919 as compared with 1918, while in 1918 the reduction was 4.3 per cent as compared with 1917. The total number killed was 2,580 in 1918 and 2,307 in 1919, a reduction of 273. The ratio of fatalities on a tonnage basis, however, was slightly higher than in 1918. The number of tons produced per fatality in 1918 in the bituminous mines was 285,552 as compared with 274,000 per fatality in 1919; in the anthracite field it was 179,358 in 1918 as compared with 135,700 in 1919. The average for the entire coal-mining industry was 235,900 tons per fatality in 1919 as compared with 262,873 in 1918; 241,618 in 1917; 265,094 in 1916; and 234,297 in 1915. A table shows the causes of coal-mine fatalties in 1919, by State and by month.

—— —— —— *Quarry accidents in the United States during the calendar year 1918. By Albert H. Fay. Washington, 1920. 52 pp. Technical paper 245.*

Accidents at quarries in the United States during 1918 show an increase in the fatality rate and a decrease in the nonfatal accident rate, the first being 2.11 per 1,000 300-day workers as compared with 1.83 in 1917, and the latter 147.07 in 1918 as compared with 185.14 in 1917. There were 125 fatalities reported as compared with 131 in 1917, and the total number of employees was 68,332 as compared with 82,290 in 1917. Tables give information concerning building-stone and crushed-stone operations for 1918, and concerning accidents due to the use of explosives, hand and mechanical haulage, and machinery.

—— *Shipping Board Emergency Fleet Corporation.—Passenger transportation and housing division. Housing the shipbuilders. Philadelphia, 1920. 57 pp.*

Includes illustrations showing views and plans of the villages and general character of the houses constructed during the war under the direction of the division, with an explanatory introduction.

—— *Treasury Department. Bureau of War Risk Insurance. Military and naval insurance and military and naval compensation claims as a result of the World War. Washington, 1920. 162 pp. Document No. 2863.*

Contains tables, charts, and diagrams showing causes of death, causes and extent of disability incurred in military or naval service, and other data concerning compensation and insurance. While essential war mortality can not be prevented, it is believed that much can be done to prevent diseases that develop among the fighting forces and "it is hoped that this presentation will serve as a contribution to the facts already ascertained with regard to war mortalities and war disabilities and will aid in establishing a program the aim of which will be to add a further check upon the spread of diseases resulting from like abnormal conditions."

Official—Foreign Countries.

ARGENTINA.—*Departamento Nacional del Trabajo. Boletin. Buenos Aires, January, 1920. 122 pp.*

This issue of the bulletin of the Argentina Department of Labor is devoted exclusively to a history of boycotts in the Republic.

AUSTRALIA (NEW SOUTH WALES).—*Department of Labor and Industry. Compendium of awards in force, 31st December, 1919. Adult time workers. Industrial gazette, Vol. xvii, No. 2. Sydney, 1920. pp. 377–603. Special supplement.*

The awards are grouped under the following: Building; Domestic and personal service; Engine-driving; Laboring (general); Manufacturing; Mining, mineral treatment, quarrying, and smelting; Miscellaneous; Professional and shop employees; Public utility services; Transport. The data for each industry are presented under three heads: Minimum wage per hour, per day, and per week; regular time per day and per week; Special rates, including overtime factors.

BELGIUM.—*Ministere de l'Industrie, du Travail et du Ravitaillement. Bulletin du Service Médical du Travail. No. 1. Brussels, January, 1920. 85 pp.*

The first number of the Bulletin of the Industrial Medical Service, a quarterly publication issued by the Ministry of Industry, Labor and Supplies. It contains a history of the origin and development of the service in Belgium from the creation of the Ministry of Industry and Labor, in 1895, to the present; the text of the acts authorizing its organization; a description of the work undertaken by the service; studies in industrial or vocational hygiene; and an analysis of the influence of occupation on health during adolescence. Among the studies are one by Dr. D. Glibert, inspector general of the Industrial Medical Service, on The influence of industrial noises; and one by Dr. G. Galand, on Traumatisms of the ear through deflagration—their relation to labor accidents.

CANADA (BRITISH COLUMBIA).—*Department of Labor. Annual report for the year ending Dec. 31, 1919. Victoria, 1920. 102 pp.*

Mentions of the strikes occurring in the Province during 1919, and contains reports of the activities of the Minimum Wage Board, and of the provincial employment service, which has entirely supplanted private employment bureaus since November 1, 1919.

—— *Minister of Mines. Annual report for the year ending 31st December, 1918, being an account of mining operations for gold, coal, etc. Victoria, 1919. 510 pp. Illustrated. Charts.*

The gross value of mineral production for 1918 was $41,782,474, an increase over that of 1917 of $4,772,082, or 12.9 per cent, this production having been exceeded only once—in 1916, when the year's output amounted to $42,290,462. There were 5,427 persons employed in and around coal mines. Coal mine fatalities for the year totaled 28, of which 16 occurred in one accident due to the breaking of a hoisting cable on Protection Island shaft. The ratio of fatal accidents per 1,000 persons employed was 5.159, compared with 8.51 for 1917 and 5.53 for 1916. The ratio for the last 10-year period was 5.089.

—— (MANITOBA).—*Public Works Department. Annual report for 1919. Winnipeg, 1920. 95 pp.*

Contains the fourth annual report of bureau of labor, for 1918–19, including child labor, minimum wage, industrial accidents, and strikes and labor difficulties. The report for 1919 showed a considerable reduction in the number of accidents as compared with 1918, especially in fatalities, 921 accidents (including 11 fatalities) being reported for 1919 as against 1,123 (including 21 fatalities) reported in 1918.

CANADA (NOVA SCOTIA).—*Workmen's Compensation Board. Report. Halifax, 1920. 31 pp.*

This report is summarized on pages 166 and 167 of this MONTHLY LABOR REVIEW.

GREAT BRITAIN.—*Board of Trade. Statistical Department. British Empire statistical conference, 1920. Report and resolutions adopted by the first conference of Government officers engaged in dealing with statistics in the British Empire, held at the Board of Trade on 20th January–26th February, 1920. London, 1920. 68 pp. Cmd. 648.*

—— *British Relief Mission. Economic conditions in Central Europe (II). London, 1920. 61 pp. Map. Cmd. 641.*

—— *National Debt Office. National health insurance funds. Account showing the nature and amount of the securities held by the commissioners for the reduction of the national debt at 31st December, 1919 (a) as investments for moneys, forming part of the national health insurance fund, paid over to them by the insurance commissioners for England, Wales, Scotland, and Ireland, respectively, under section 54 (3) of the national insurance act, 1911, and (b) as investments for moneys of the "central fund" established pursuant to section 4 (1) of the National Health Insurance Act, 1918. London, 1920. 2 pp. 74.*

—— —— *Unemployment insurance fund. Account showing the nature and amount of the securities held by the commissioners for the reduction of the national debt at 31st March, 1919, as investments for moneys, forming part of the unemployment fund, paid over to them by the board of trade under section 92 (3) of the national insurance act, 1911. London, 1920. 2 pp. 69.*

—— *National health insurance joint committee, National Insurance Acts, 1911 to 1919. (National health insurance.) National health insurance fund accounts. Appendix. Approved societies and insurance committees' receipts and payments for the years ended 31st December, 1915, and 31st December, 1916. London, 1920. 8 pp. Cmd. 691.*

—— *Parliament. House of Commons. Standing committee A. Report on the national health insurance bill with the proceedings of the committee. London, 1920. 9 pp. 87.*

—— —— —— *Standing committee B. Report on the shops (early closing) bill with the proceedings of the committee. London, 1920. 9 pp. 76.*

—— —— —— *Standing committee C. Report on the unemployment insurance bill with the proceedings of the committee. London, 1920. 25 pp. 90.*

—— *Treasury. Ex-service men employed in Government offices, 1st July, 1919, and 1st April, 1920. London, 1920. 2 pp. Cmd. 685.*

—— —— *Staffs employed in Government departments, on 1st April, 1920. London, 1920. 3 pp. Cmd. 690.*

—— (IRELAND).—*Irish Coal Industry Committee, 1919. Report. Dublin, 1920. 16 pp. Cmd. 650.*

NETHERLANDS.—*Departement van Arbeid. Verslag over het haventoezicht uiteoefend in 1918. The Hague, 1919. viii, 118 pp. Chart.*

Report of operations under the harbor workers' act, covering such matters as working conditions and hours of labor of longshoremen, freight handlers and others engaged at the various Dutch ports.

—— *Kamers van Arbeid. Overzicht van de Verslagen der Kamers van Arbeid over 1918. The Hague, 1920. 116 pp.*

The Dutch labor councils are equipartisan bodies of employers and employees representing their respective interests within a trade or locality. They are under the supervision of, and report to, the national department of labor. The above constitutes the summary of the annual reports of the 80 councils at present functioning. These councils concern themselves with questions of wages and hours, and other conditions of employment, make recommendations to the authorities respecting legislation, and also adjust disputes between the parties.

NEW ZEALAND.—*Census and Statistics Office. Official yearbook, 1919. Wellington, 1919. 968 pp. Maps.*

The section of this report relating to wages and hours is reviewed on pp. 113 to 115 of this issue of the MONTHLY LABOR REVIEW.

NORWAY.—*Riksforsikringsanstalten. Sjømannsforsikringen for årene 1913–1917; fiskerforsikringen for året 1918. Christiania, 1920, 27, 13*, 28 pp.* (*Norges Offisielle statistik, VI, 169.*)

This comprises the report of the operations of the seamen's and fishermen's accident insurance systems of Norway established by the act of August 18, 1911, and subsequent amendments. A summary of the operations is contained in the two tables following:

STATISTICS OF SEAMEN'S ACCIDENT INSURANCE IN NORWAY, 1913 TO 1917.

[1 crown, at par=26.8 cents.]

Year.	Number insured.	Amount of pay roll.	Premium.		Compensation.		Accidents subject to compensation.	Compensation per accident.
			Amount.	Per cent of pay roll.	Amount.	Per cent of pay roll.		
		Crowns.	*Crowns.*		*Crowns.*			*Crowns.*
1913	37,541	28,495,250	1,090,435	38.3	647,949	22.7	900	720
1914	37,163	27,742,650	1,070,013	38.6	647,150	23.3	856	756
1915	36,463	28,643,000	1,107,238	38.7	600,946	21.0	877	685
1916	40,684	31,540,950	1,196,317	37.9	825,520	26.2	1,009	818
1917	33,858	24,694,650	936,584	37.9	730,255	29.6	772	946
Total	185,709	141,116,500	5,400,587	38.3	3,451,820	24.5	4,414	782

STATISTICS OF FISHERMEN'S ACCIDENT INSURANCE SYSTEM, 1911 TO 1918.

[1 crown, at par=26.8 cents.]

Year.	Number insured.	Amount of premium.	Amount of compensation.	Accidents subject to compensation.
		Crowns.	*Crowns.*	
1911	87,832	132,606	142,528	291
1912	89,911	135,779	149,640	271
1913	89,197	134,770	200,940	297
1914	87,614	132,482	162,143	270
1915	88,360	133,298	114,427	236
1916	89,352	179,417	188,338	188
1917	92,802	186,514	269,706	217
1918	94,709	190,402	172,500	141

SWEDEN.—*Statistiska Centralbyrån. Statistisk årsbok för Sverige, sjunde årgången 1920. Stockholm, 1920. 314 pp.*

Among other general statistics this issue (the seventh) of the Swedish statistical yearbook contains tables of industrial accidents, operations of public employment offices, strikes and lockouts, collective agreements, unemployment, hours of labor and wages in agriculture, cooperation, house construction, consumption of principal food articles, cost of living, and retail prices.

UNION OF SOUTH AFRICA.—*Miners' Phthisis Prevention Committee. Final report, Johannesburg, 10th January, 1919. Pretoria, 1919. 110 pp. Illustrated. Charts.*

A general summary of the work of the committee since December 31, 1915. The principal matters dealt with are the conditions obtaining in crusher houses and sample crusher rooms, the amount of dust permissible in mine water used for feeding water drills, the ventilation of mines, experiments with various types of drills, and improvements in the sampling and determination of dust in mine air.

Unofficial.

ATTLEE, C. R. *The social worker. London, C. Bell and Sons, Ltd., 1920. 286 pp.*

The author aims to provide those who contemplate doing social work with a general sketch of the opportunities offered for such service, and to show the qualifications and training desirable in a social worker.

BEARD, MARY. *A short history of the American labor movement. New York, Harcourt, Brace and Howe, 1920. 174 pp.*

A brief and simple story of the labor movement in this country, based largely upon the history of labor in the United States by John R. Commons and his associates.

BOUCKE, O. FRED. *The limits of socialism. New York, The Macmillan Co., 1920. 259 pp.*

This book deals first with the limits of socialism in theory and second with the limits in practice. It is an argument for the acceptance of socialistic theories, such as equalizing the distribution of income through abolition of the right of inheritance, through taxation, and by nationalization of industry and natural resources. The author states that although "nationalism is a growth that thrives on secrecy and on centralization of powers" he believes that "for the present the outlook for internationalism is disquieting. The limits of government point to nationalism in spite of its perils, in spite of grievous experiences in the past."

BROOKS, JOHN GRAHAM. *Labor's challenge to the social order. Democracy its own critic and educator. New York, The Macmillan Co., 1920. 441 pp.*

This book recounts the growth of various social movements during the past 40 years, trade-unions, socialism, cooperation, the I. W. W., syndicalism, and the guild movement. The object of the volume, it is stated, is to show how the constructive elements within these organizations may be turned toward social conservation.

BROŽ, ALEXANDER. *The first year of the Czecho-Slovak Republic. London, The Twentieth Century Press (1912), Ltd., 1920. 80 pp.*

Contains chapters on Land reform, Economic and financial policy, Future internal problems, and The socialist and labor movement. The preface is by H. M. Hyndman.

CANNONS, H. G. T. *Bibliography of industrial efficiency and factory management (books, magazine articles, etc.), with many annotations and indexes of authors and of subjects. New York, E. P. Dutton & Co., 1920. 167 pp.*

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE. *Annuaire Houillères—Mines de fer. Twenty-first year, 1920. Paris, 1920. 1551 pp. Maps.*

This volume covers the year 1913 in so far as statistics of exploitation, production, etc., of mines are concerned. Chapter 5 consists of a compilation of laws, decrees, etc., governing mining operations in France, up to and including 1919.

COOPERATIVE UNION, LIMITED (UNITED KINGDOM). *Fifty-first annual cooperative congress, 1919. Proceedings. Manchester, Holyoake House, Hanover Street [1920]. 814 pp.*

At this congress the cooperative movement put itself on record as favoring a consolidated cooperative reserve fund; a national cooperative employees' superannuation fund; an arrangement whereby cooperative employees would not be called out on strike in sympathy with strikers against noncooperative employers; assistance for cooperative societies in devastated regions of Europe; the establishment of an international cooperative statistical bureau; the organization of a fund to establish a cooperative college; and the nationalization of land and coal mines. It was decided that the political activities of the cooperative movement be carried on under the name of the Cooperative Party, and that an agreement be made with the Labor Party for election purposes.

In addition to the proceedings of the fifty-first congress, the volume contains detailed statistics of operation of the societies belonging to the Cooperative Union for 1918,

summary figures for which were given in the April, 1920, issue of the MONTHLY LABOR REVIEW (pp. 131, 132).

CROTCH, W. WALTER. *Industrial anarchy—and the way out. London, Hutchinson & Co., 1920. 132 pp.*

This book discusses economic conditions which have been causes of industrial unrest, and different schemes, such as profit sharing, payment by results, etc., for combating the radical tendencies of the times.

CROWTHER, SAMUEL. *Common sense and labor. New York, Doubleday, Page & Co., 1920. 284 pp.*

This book discusses the underlying causes of labor unrest, relations between employers and employees, and the economic reasons for high wages and high prices, showing that what the world needs is to get back to a satisfactory production basis.

DOUGLAS, C. H. *Economic democracy. New York, Harcourt, Brace & Howe, 1920. 144 pp.*

An attempt "to disentangle from a mass of superficial features, such as profiteering and alleged scarcity of commodities, a sufficient portion of the skeleton of the structure we call society as will serve to suggest sound reasons for the decay with which it is now attacked; and afterwards to indicate the probable direction of sound and vital reconstruction."

ELBOURNE, EDWARD T. *The management problem. London, The Library Press (Ltd.) [October, 1919]. 144, 23 pp. The manufacturing problem series.*

The object of this book is to focus attention on some of the more prominent features of industrial management under postwar conditions. The first three chapters reflect the war experience of the author and his partner in solving labor problems involved in the manufacture of guns and heavy shells at Ponders End. Other chapters deal with Production estimating, Production control, and a consideration of a board of trade departmental committee's report on the position of the engineering trades after the war.

GOODE, WM. T. *Bolshevism at work. New York, Harcourt, Brace and Howe, 1920. 143 pp.*

HAMILTON, ALICE, AND MINOT, GEORGE R. *Ether poisoning in the manufacture of smokeless powder. In Journal of Industrial Hygiene, Vol. 2, No. 2. Boston, June, 1920. Pp. 41–49.*

This article contains besides other data the results of a preliminary study of the blood of 51 young women between the ages of 16 to 30 who had been chronically exposed to ether fumes, also of a study of 35 male employees averaging about 32 years of age, who had also been constantly so exposed, both investigations having been conducted under the auspices of the National Research Council. The authors state that there is at present no definite evidence of the way in which constant exposure to ether produces a polycythemia, and summarize their conclusions by saying that "some individuals chronically exposed to ether fumes show polycythemia, increased white counts, and, at times, evidence of slight anemia."

HARD, WILLIAM, AND LEACH, PAUL R. *Labor in a basic industry. Chicago, 1920. 34 pp. Chicago Daily News Reprints No. 1.*

In two parts: The mind of labor, and Improved methods in coal mining.

HART SCHAFFNER & MARX. *The Hart Schaffner & Marx labor agreement: Industrial law in the clothing industry. Compiled by Earl Dean Howard. Chicago, 1920. 97 pp.*

This pamphlet gives the text of the original Hart Schaffner & Marx labor agreement signed in 1911, an annotated text of the 1916 agreement with additions, the text of the decision of the board of arbitration of December 22, 1919 (noted in MONTHLY LABOR REVIEW for April, 1920, pp. 141 and 142), and an account of the development of agreement from 1911 to 1916 and of the experience of Hart Schaffner & Marx with

collective bargaining, 1914. There are two articles by Ray Stannard Baker on the "Shop council plan in clothing trade."

HERRMANN, AUG., ET SIMONIN, RENÉ. *L'Assurance en faveur des employés privés. Strasbourg, 1919. 245 pp.*

This volume reproduces the German law and orders and decrees, issued during the war, concerning insurance of persons in private employment. A lexicon in German, French, and French-German, embracing over 2,000 words and phrases, is added.

HODGES, FRANK. *Workers' control in the coal-mining industry. London, The Mines for the Nation Campaign Committee. [1919.] 8 pp.*

HOLMES, JOHN HAYNES. *Is violence the way out of our industrial disputes? New York, Dodd, Mead and Company, 1920. 130 pp.*

The chapters of the book present in revised form addresses delivered at the Community Church of New York. The argument is an attempt to apply to the present industrial situation the doctrine of nonresistance.

INDEPENDENT LABOR PARTY (GREAT BRITAIN). *Report of the twenty-eighth annual conference held at Glasgow, April, 1920. London, 8 and 9, Johnson's Court, Fleet Street, E. C. 4. 128 pp.*

INTERNATIONAL FEDERATION OF TRADE UNIONS. *Report, July 25 to August 3, 1919. London, New Goswell Printing Co. 24 pp.*

This report, prepared by W. A. Appleton for submission to the Parliamentary Committee of the Trades-Union Congress and the General Federation of Trade Unions, contains in addition to the proceedings of the Amsterdam conference, a statement of special declarations upon the League of Nations, socialization, and the blockade, as well as the British draft of the rules and regulations of the federation which was adopted by the conference.

INTERNATIONAL HARVESTER COMPANY. *Annual report. 1919. Chicago, Harvester Building, December 31, 1919. 25 pp.*

Includes report of employees' benefit association, the work of the industrial council, and of the profit-sharing plan and pension fund of the company.

INTERNATIONAL UNION OF MINE, MILL AND SMELTER WORKERS. *Official proceedings of the twenty-third consecutive and third biennial convention held at Denver, Colo., August 5 to 18, inclusive. Denver, Ernest Mills, secretary-treasurer, 509 Denham Building, 1918. 492 pp.*

KANTSKY, KARL. *The dictatorship of the proletariat. Translated by H. J. Stenning. Manchester (England), The National Labour Press (Ltd.), [1919] 149 pp. I. L. P. Library.*

KIRKALDY, ADAM W., EDITOR. *Industry and finance. (Supplementary volume.) Being the results of inquiries arranged by the section of economic science and statistics of the British Association, during the years 1918 and 1919. Published by authority of the Council of the British Association. London, Sir Isaac Pitman & Sons (Ltd.), 1920. 150 pp.*

A review of this book appears on pages 57 to 59 of this issue of the REVIEW.

LAIDLER, HARRY W. *Socialism in thought and action. New York, The Macmillan Company, 1920. 546 pp.*

This book aims not only to record the recent progress of the movement but also to treat fully such subjects as the socialist theory of economic development, the socialist conception of a future social State, and the activities, achievements, and present status of the organized socialist movement in various countries of the world. It is intended as a textbook for college classes and other study groups as well as a reference book.

LLOYD, C. M. *Trade unionism. London, A. and C. Black (Ltd.), 1919. 244 pp.*

This book purports to be neither an elementary treatise nor an exhaustive study of the subject, but is intended to give a clear idea of what the trade union is and to

inspire the reader to inquiry as to what it ought to be. It was completed before the outbreak of the war and was first published in January, 1915, the present volume being a reprint.

METTON, CLAUDIUS. *Un Village Syndical. Bibliothèque du Syndicalisme Agricole, Publiée sous la direction de J.-H. Ricard. Paris, Payot & Cie, 1920. 155 pp.*

Description of Neulise, a village of France, where all activities—social as well as economic—are carried on collectively by the community.

NATIONAL SAFETY COUNCIL. *Eighth annual safety congress, held in Cleveland, Ohio, October 1, 2, 3, 4, 1919. [Chicago], 1920. 1457 pp.*

An account of sessions of the congress was given in the MONTHLY LABOR REVIEW for November, 1919, pp. 258–260.

—— *Safe practices. No. 34. Industrial explosion hazards: Gases, vapors, flammable liquids, and dusts. Chicago, 168 North Michigan Avenue [1920]. Illustrated.*

NEW JERSEY STATE CHAMBER OF COMMERCE. *Bureau of State Research. Broadening the scope of pensions in private industry. In "New Jersey," Vol. VI, no. 8, Newark, May, 1919. Pp. 113–117.*

This brief report contains a list of 92 of the most important companies which maintain pension funds.

NORDISKE ARBEJDERULYKKESFORSIKRINGSMØDE. [*Report of proceedings of fourth Scandinavian industrial accident insurance congress, held at Copenhagen, June 4–6, 1919.*] *Copenhagen, 1920. 332, 143* pp.*

Among the topics considered by the congress were: Administration and the courts in accident insurance; application of insurance to accidents outside the establishment; how injured workmen spend their benefits; pulmonary tuberculosis and military service; application of the insurance to establishments in Scandinavian countries other than the home country; injuries of the spine; principles governing the calculation of the annual compensation; war neurosis; distinction between "employee" and "independent contractor"; working capacity and injury to both eyes; traumatic injury and wounds of the stomach.

ROSENTHAL, HENRY S. *Cyclopedia of building, loan, and savings associations. How to organize and successfully conduct them. Cincinnati, American Building Association News Co., 1920. 500 pp.*

SMITH-GORDON, L., and O'BRIEN, C. *Cooperation in many lands. Vol. I. Published by the Cooperative Union, Limited. Holyoake House, Hanover Street, Manchester, England, 1919. 272 pp.*

This book presents a cross section of the cooperative movement. Thinking that the importance of cooperation in its international aspects is increasing and is bound to increase still more during the next few years, the authors classify and describe the movements of the various countries according to the nature of their activities. The history of cooperation is outlined, the different theories of the relations between consumers and producers are discussed, and the phases of the movement—production, consumption, and finance—are described. Perhaps the most interesting chapters are those dealing with the economic, political, and educational policies of cooperators. All the discussions show the points of likeness and difference among the movements of various countries.

It is stated that the present volume is the first of a series to be published by the Cooperative Union. In this volume the effort has been made to lay down "the underlying theory upon which the practical structure of the cooperative movement has been and must be built up, and to give some idea of the spirit and ideals by which cooperators are inspired." The second volume will illustrate from actual practice the methods of working adopted by cooperative societies in various countries and show the amount of success achieved by each method. The rest of the series will be devoted to the detailed description of the movement in each country, a volume being given to a single country. This series should form a timely and valuable contribution to cooperative literature.

SOUTHARD, E. E. *The modern specialist in unrest: A place for the psychiatrist in industry. In Journal of Industrial Hygiene, Vol. 2, No. 1. Boston, May, 1920. Pp. 11–19.*

A strong argument for the work of the psychiatrist and the psychiatric social worker in preventing and adjusting industrial unrest. The author does not believe that unrest, even in industry, is entirely concerned with group thought or with group action.

STUDENTS' CAREERS ASSOCIATION. *Careers. Fifth edition. A guide to the professions and occupations of educated women and girls. Published in connection with the Students' Careers Association and the Central Bureau for the Employment of Women. London, W. I., 5, Princes Street, Cavendish Square [1919]. 288 pp.*

TALBOT, WINTHROP, compiler and editor. *Americanization. Principles of Americanism. Essentials of Americanization. Technic of race-assimilation. Annotated bibliography. Second edition revised and enlarged by Julia E. Johnsen. New York, The H. W. Wilson Company, 1920. 373 pp. The handbook series.*

A collection of excerpts from the writings of statesmen and authors.

TAYLOR, CARL C. *The social survey, its history and method. Columbia, Mo., October, 1919. 91 pp. The University of Missouri bulletin, Vol. 20, No. 28. Social science series 3.*

TORNQUIST, ERNESTO, AND CO., LIMITED. *The economic development of the Argentine Republic in the last fifty years. Buenos Aires, 1919. 328 pp. Maps.*

TROMBERT, ALBERT. *Profit sharing: A general study of the system as in actual operation. London, P. S. King & Son (Ltd.), 1920. 94 pp.*

A recent translation of a French report which was presented to the Congress of Bordeaux in 1912 on behalf of the "Society for the practical study of profit sharing." The report treats of the underlying principles, the methods of applying profit sharing, its application in different countries, and the results.

WEBB, SIDNEY, AND WEBB, BEATRICE. *The history of trade unionism (revised edition extended to 1920). New York, Longmans, Green & Co., 1920. 784 pp.*

This edition incorporates what has been added to the public knowledge of the subject since the publication of the first edition in 1894, besides a revision and at some points an amplification of the description of the origin and early struggles of British trade unionism.

WOLFF, HENRY W. *Cooperation in India. London, W. Thacker & Co., [1919]. 352 pp.*

This book is an exhaustive account of the prevailing type of cooperative society in India—the agricultural credit society. The great need of cooperative credit as a means of raising the Indian peasant from his present state of poverty and ignorance is emphasized. It is pointed out, however, that the cooperative credit society must be adapted to the peculiar conditions of India. With this in mind, the author takes up in detail the types of credit societies and banks found in Europe and in Egypt and shows why these are not suited to India. He dwells on the value of cooperation as an inculcator of habits of thrift, and describes the "grain bank" in which the peasant whose surplus of grain is too small to sell to advantage may deposit his "few handfuls." The author favors the establishment of these grain banks in connection with the credit banks to the end that members who find it easier to deposit grain than money may do so. He states, however, that this arrangement should be looked upon merely as a preparation for cash business.

Among the fields in which, the writer thinks, cooperation may perform useful service are those of irrigation of arid land, raising of live stock, agriculture, and the organization of the "small" or hand industries of which India has so many.

He lays great stress on the need and value of the education of the peasant in the principles of cooperation.

YULE, G. UDNY. *An introduction to the theory of statistics. Fifth edition, enlarged. London, Charles Griffin and Company (Ltd.), 1919. 398 pp. 53 figures and diagrams.*

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. The bulletins marked thus * are out of print.*]

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.
Bul. 269. Wholesale prices, 1890 to 1919. [In press.]

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.
Bul. 266. A study of family expenditures in the District of Columbia. [In press.]
Bul. 270. Retail prices, 1913 to 1919. [In press.]

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.
Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
Bul. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City.

Wages and Hours of Labor—Concluded.

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, 1907 to 1918.
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. 221. Hours, fatigue, and health in British munition factories.
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.
Bul. 252. Wages and hours of labor in the slaughtering and meat-packing industry.
Bul. 259. Union scale of wages and hours of labor, May 15, 1918.
Bul. 260. Wages and hours of labor in the boot and shoe industry, 1907 to 1918.
Bul. 261. Wages and hours of labor in woolen and worsted goods manufacturing, 1918.
Bul. 262. Wages and hours of labor in cotton goods manufacturing and finishing, 1918.
Bul. 265. Industrial survey in selected industries in the United States, 1919. Preliminary report. [In press.]
Bul. 274. Union scale of wages and hours of labor, May 15, 1919. [In press.]

Employment and Unemployment.

* Bul. 109. Statistics of unemployment and the work of employment offices.
Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
Bul. 172. Unemployment in New York City, N. Y.
Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
Bul. 192. Proceedings of the American Association of Public Employment Offices.
* Bul. 195. Unemployment in the United States.
Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
Bul. 206. The British system of labor exchanges.
Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
Bul. 223. Employment of women and juveniles in Great Britain during the war.
* Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
Bul. 235. Employment system of the Lake Carriers' Association.
Bul. 241. Public employment offices in the United States.
Bul. 247. Proceedings of the Employment Managers' Conference, Rochester, N. Y., May 9–11, 1918.

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 determination in Oregon.
Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
Bul. 193. Dressmaking as a trade for women in Massachusetts.
Bul. 215. Industrial experience of trade-school girls in Massachusetts.
Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
Bul. 223. Employment of women and juveniles in Great Britain during the war.
Bul. 253. Women in the lead industry.

Workmen's Insurance and Compensation (including laws relating thereto).

Bul. 101. Care of tuberculous wage earners in Germany.
Bul. 102. British National Insurance Act, 1911.
Bul. 103. Sickness and accident insurance law of Switzerland.
Bul. 107. Law relating to insurance of salaried employees in Germany.
* Bul. 126. Workmen's compensation laws of the United States and foreign countries.
Bul. 155. Compensation for accidents to employees of the United States.
* Bul. 185. Compensation legislation of 1914 and 1915.
Bul. 203. Workmen's compensation laws of the United States and foreign countries.
Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
Bul. 240. Comparison of workmen's compensation laws of the United States.
Bul. 243. Workmen's compensation legislation in the United States and foreign countries.
Bul. 248. Proceedings of the Fourth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
Bul. 264. Proceedings of the Fifth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
Bul. 272. Workmen's compensation legislation of the United States and Canada, 1919. [In press.]
Bul. 273. Proceedings of the Sixth Annual Meeting of the International Association of Industrial Accident Boards and Commissions. [In press.]
Bul. 275. Comparison of workmen's compensation laws of the United States and Canada. [In press.]

Industrial Accidents and Hygiene.

Bul. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories.
Bul. 120. Hygiene of the painters' trade.
* Bul. 127. Dangers to workers from dusts and fumes, and methods of protection.
Bul. 141. Lead poisoning in the smelting and refining of lead.
* Bul. 157. Industrial accident statistics.
Bul. 165. Lead poisoning in the manufacture of storage batteries.
* Bul. 179. Industrial poisons used in the rubber industry.
Bul. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings.
* Bul. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [Limited edition.]
Bul. 205. Anthrax as an occupational disease.
Bul. 207. Causes of death by occupation.
Bul. 209. Hygiene of the printing trades.
Bul. 216. Accidents and accident prevention in machine building.
Bul. 219. Industrial poisons used or produced in the manufacture of explosives.

Industrial Accidents and Hygiene—Concluded.

Bul. 221. Hours, fatigue, and health in British munition factories.
Bul. 230. Industrial efficiency and fatigue in British munition factories.
Bul. 231. Mortality from respiratory diseases in dusty trades.
Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
Bul. 236. Effect of the air hammer on the hands of stonecutters.
Bul. 251. Preventable death in the cotton manufacturing industry.
Bul. 253. Women in the lead industry.
Bul. 256. Accidents and accident prevention in machine building. Revision of Bul. 216.
Bul. 267. Anthrax as an occupational disease. (Revised.) [In press.]
Bul. 276. Standardization of industrial accident statistics. [In press.]

Conciliation and Arbitration (including strikes and lockouts).

* Bul. 124. Conciliation and arbitration in the building trades of Greater New York.
Bul. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements.
Bul. 139. Michigan copper district strike.
Bul. 144. Industrial court of the cloak, suit, and skirt industry of New York City.
Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
* Bul. 191. Collective bargaining in the anthracite coal industry.
Bul. 198. Collective agreements in the men's clothing industry.
Bul. 233. Operation of the Industrial Disputes Investigation Act of Canada.

Labor Laws of the United States (including decisions of courts relating to labor).

* Bul. 111. Labor legislation of 1912.
* Bul. 112. Decisions of courts and opinions affecting labor, 1912.
* Bul. 148. Labor laws of the United States, with decisions of courts relating thereto.
Bul. 152. Decisions of courts and opinions affecting labor, 1913.
* Bul. 166. Labor legislation of 1914.
* Bul. 169. Decisions of courts affecting labor, 1914.
* Bul. 186. Labor legislation of 1915.
* Bul. 189. Decisions of courts affecting labor, 1915.
Bul. 211. Labor laws and their administration in the Pacific States.
* Bul. 213. Labor legislation of 1916.
Bul. 224. Decisions of courts affecting labor, 1916.
Bul. 229. Wage-payment legislation in the United States.
Bul. 244. Labor legislation of 1917.
Bul. 246. Decisions of courts affecting labor, 1917.
Bul. 257. Labor legislation of 1918.
Bul. 258. Decisions of courts and opinions affecting labor, 1918.
Bul. 277. Labor legislation of 1919.

Foreign Labor Laws.

Bul. 142. Administration of labor laws and factory inspection in certain European countries.

Vocational Education.

Bul. 145. Conciliation, arbitration, and sanitation 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. 159. Short-unit courses for wage earners, and a factory school experiment.
Bul. 162. Vocational education survey of Richmond, Va.
Bul. 199. Vocational education survey of Minneapolis.
Bul. 271. Adult working-class education in Great Britain and the United States. [In press.]

Labor as Affected by the War.

Bul. 170. Foreign food prices as affected by the war.
Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
Bul. 221. Hours, fatigue, and health in British munition factories.
Bul. 222. Welfare work in British munition factories.
Bul. 223. Employment of women and juveniles in Great Britain during the war.
Bul. 230. Industrial efficiency and fatigue in British munition factories.
Bul. 237. Industrial unrest in Great Britain.
Bul. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee.
Bul. 255. Joint industrial councils in Great Britain.

Miscellaneous Series.

* Bul. 117. Prohibition of night work of young persons.
Bul. 118. Ten-hour maximum working day for women and young persons.
* Bul. 123. Employers' welfare work.
Bul. 158. Government aid to home owning and housing of working people in foreign countries.
* Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
* Bul. 167. Minimum-wage legislation in the United States and foreign countries.
Bul. 170. Foreign food prices as affected by the war.
Bul. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
Bul. 208. Profit sharing in the United States.
Bul. 222. Welfare work in British munition factories.
Bul. 242. Food situation in Central Europe, 1917.
Bul. 250. Welfare work for employees in industrial establishments in the United States.
Bul. 254. International labor legislation and the society of nations.
Bul. 263. Housing by employers in the United States. [In press.]
Bul. 268. Historical survey of international action affecting labor. [In press.]

SPECIAL PUBLICATIONS ISSUED BY THE BUREAU OF LABOR STATISTICS.

Descriptions of occupations, prepared for the United States Employment Service, 1918–19.

Boots and shoes, harness and saddlery, and tanning.
Cane-sugar refining and flour milling.
Coal and water gas, paint and varnish, paper, printing trades, and rubber goods.
Electrical manufacturing, distribution, and maintenance.
Logging camps and sawmills.
Medicinal manufacturing.
Metal working, building and general construction, railroad transportation, and shipbuilding.
Mines and mining.
Office employees.
Slaughtering and meat packing.
Street railways.
Textiles and clothing.
Water transportation.