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BUREAU OF LABOR STATISTICS**

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A MODERN INDUSTRIAL SUBURB.

BY LEIFUR MAGNUSSON.

Morgan Park, a new suburb of the city of Duluth, Minn., is an iron and steel town owned and operated by a subsidiary company of the United States Steel Corporation. While it was established in connection with an iron and steel manufacturing center, its problems are those of a residence section for any industry compelled to locate outside the limits of a large city in order to secure an adequate amount of space and a continuous supply of labor. During the period extending from the time when plans for the establishment of the steel plant at that point were first drawn up, to the time when active operations began, temporary housing for the construction forces was necessary. The development thus presents one method at least of housing a temporary labor force, and may therefore be instructive to all industries of a temporary nature. The methods employed are of interest to shipyards whose work may be temporary and to companies engaged in the erection of power plants, construction of drainage areas, and irrigation and flood works, whose work terminates within a period of 5 to 15 years.

Morgan Park is an example of a modern industrial suburb intended to serve as a nucleus of a permanent industry. It has been developed in an orderly and systematic manner, town-planning principles have been observed in its layout, educational and recreational facilities have been provided, and houses of a permanent and substantial character erected.

Architecturally it is of interest in that one type of material (concrete in two forms, block and stucco) has been used in the construction of the houses, yet variety has been secured and the usual monotony of company towns avoided. There is more than the average range in the number of rooms and character of dwellings provided in the different designs in order that both high and low paid labor may be accommodated. In this one community may be studied

the temporary labor camp, the multiple and row house for the lower paid class of labor, the boarding house for the single men and women, the five and six room detached house for the better-paid workmen and the administrative force, and the eight and nine room house for the managers. In short, the houses are designed to reach all types of workmen and salaried employees.

History and purpose.—The first work for the erection of the steel plant which became the center of the community was begun in 1907. No work was begun on the town site till August, 1913. The land at that time was overgrown with brush, but by August, 1915, the first group of houses was complete.

All this early development—the town planning, street work, house construction—was carried on as a part of the general construction work of the Minnesota Steel Co., but in 1915 a separate company—the Morgan Park Co.—was organized to take over the housing work, its maintenance, general operation, and extension.

The industrial suburb in question was established to house a certain nucleus of the future labor force of the Minnesota Steel Co. It also exists to house certain employees of other subsidiary companies of the United States Steel Corporation operating in that neighborhood, namely, the Universal Portland Cement Co. and the Duluth, Missabe & Northern Railroad Co. The steel plant employs over 3,000 men at present, but only about 400 families are housed in the company town. Employees of other subsidiaries bring the number housed in the suburb to about 440 families at present, in addition to which about 180 unmarried employees are accommodated in the company boarding houses and about 130 are living as roomers and boarders in private families, making a total of about 750 employees out of about 3,500 employed by the steel plant, the cement plant, and the housing company.

Among the principal results secured by the company in developing the suburb as a company town has been the keeping down of private rents in speculatively developed suburbs surrounding it. The housing company is convinced that it has prevented excessive exploitation of the steel company's employees which, if it had been allowed, would have seriously hampered the company in securing an adequate and sufficient supply of labor. Buying land merely for its plant, erecting that plant, and leaving the housing of its working force to exploitation of private landholders, would have proved a shortsighted industrial policy.

Land values.—Naturally there have been large increases in the value of the land bought by the steel corporation and of that in the vicinity held by private interests, due to an increased demand for

locations near the steel and Portland cement plants. The steel corporation, moreover, has put vast sums into improvements which have added to the value of the property.

The land was originally raw land, having only an agricultural value. In 1906 the assessed value of 1,250 acres within the area purchased by the steel corporation was \$29,500, or \$23.60 per acre, according to the records of the office of the tax assessor of the city of Duluth, Minn. As land is assessed by the city at 40 per cent of its "full and true" value, the value per acre at that time was probably about \$59. Of the approximate 190 acres in the town site of Morgan Park, the 141 acres which had been improved by the end of 1916 have been assessed at \$720 per acre, and the additional 48 acres improved in 1917 have been assessed at \$1,000 per acre. This would make the average assessed value of the actual 189 acres for which the figures apply about \$791 per acre, or a "full and true" value of \$1,975 per acre at the present time.

Location and accessibility.—Morgan Park is within the city limits of Duluth, which in 1916 had a population of about 92,000,¹ and is connected with the city by a street car line and a railroad line. The fare by street car is 5 cents from the center of Duluth, a distance of 10 miles and about an hour's ride.

The village is located on a low plateau overlooking Spirit Lake, an arm of the St. Louis River. The plateau is cut by a few small ravines. The town site occupies an area of about 190 acres, out of a total of 1,600 acres purchased by the United States Steel Corporation for the plant of the Minnesota Steel Co.

*Arrangement of town site.*²—Town planning, particularly street layout, has been much simplified by the level character of the ground. Few curved streets have been made for their own sake, but principally as a result of the natural profile of the lake shore and the ravines. A broad avenue running north and south, 80 feet wide from lot line to lot line, and with a central parking, traverses the center of the village (Fig. 1). The street car line passes through the central park strip.

Two radial avenues, 70 feet wide, extend from the community center adjoining the school, near the center of the town. All secondary streets are 50 feet wide, lot line to lot line, and alleys are 16

¹ U. S. Department of Commerce. Bureau of the Census. Financial statistics of cities having a population of over 30,000, 1916. Washington, 1917, p. 15.

² The careful town planning observed in the laying out of this industrial suburb is in striking contrast to the planning of the city of which it is a part, for while Duluth is laid out on the side of a series of hills and bluffs overlooking St. Louis Bay and Lake Superior, nevertheless the streets have been run straight with the surveyor's line at right angles to a main street which has been laid in disregard of the lake and harborline. Grades of 12 per cent and over are not uncommon. Only the accident of a few original country roads up between the hills has preserved a few lines of communication following easy grades. The whole problem of replanning a growing and congested city is now under discussion.

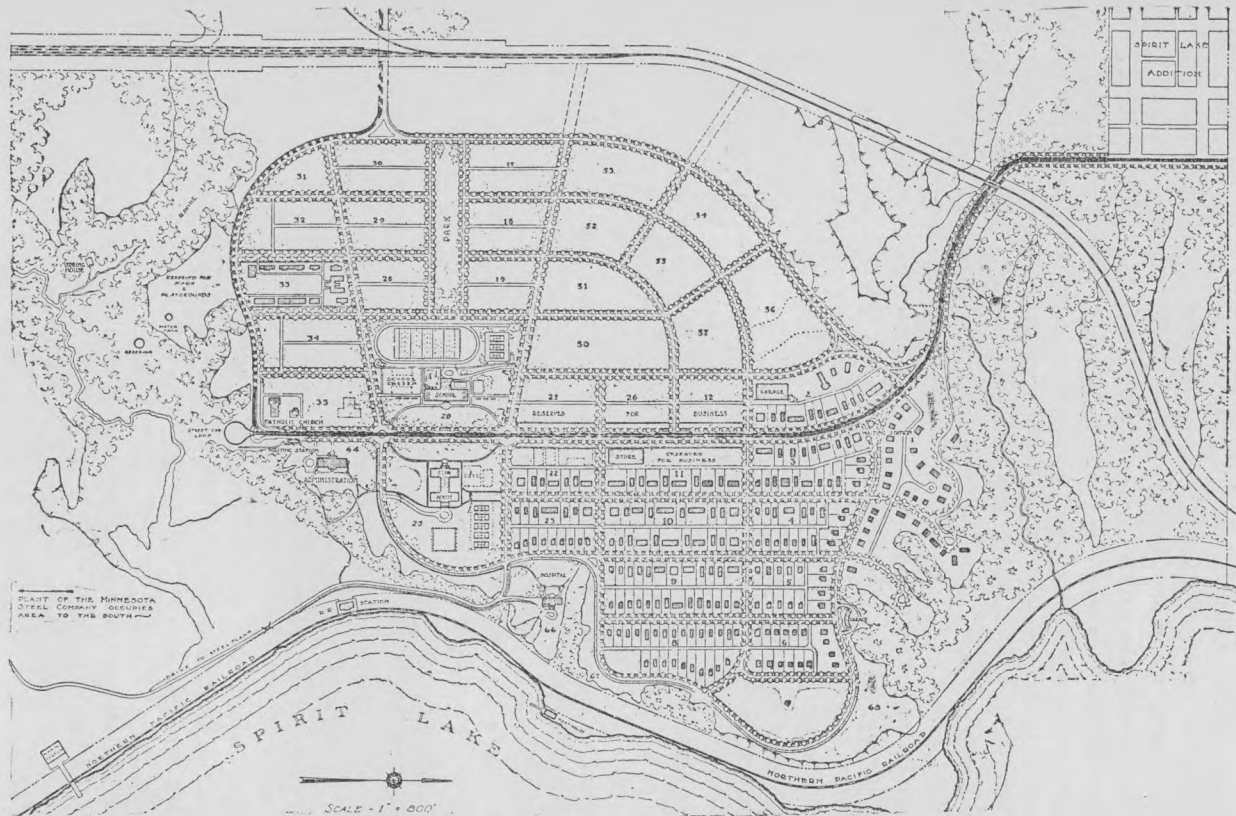


FIG. 1.—GENERAL PLAN OF MORGAN PARK, DULUTH, MINN.

Spirit Lake Addition shown in upper right corner is a private real estate development.

feet. All alleys have open ends, except in the low-rental block, and may be inspected from the streets. All streets and alleys are paved with concrete and have been properly pitched to secure easy drainage.

In planning the town site the positions of trees were noted and an effort made to retain as many as possible. Parking was established along all principal and secondary streets. The tree planting has been thought out as a whole, certain harmonious types of trees being grouped in different streets, with evergreens, shrubs, and bush roses at other points, and vines planted for each house.

Districting.—As no land or houses have been sold, the title to the whole town site remaining in the company, present and future difficulties in securing an advantageous districting of the town site to observe the proper amenities have been simplified. There have been set aside special blocks in the town site for business purposes; community playgrounds and parks have been provided adjacent thereto, and an entire block of 10 acres has been donated to the city of Duluth for a school site. Residences of the single, semidetached, and terrace, or row types of the better class, have been restricted to the eastern half of the community nearest the lake shore, while in the western half of the town are located the first units of houses in small house blocks, for the lower-paid and unskilled labor. No race segregation is attempted.

The building restrictions imposed provide a setback of 20 feet for all houses and prohibit the erection of any outbuildings on the lots. The north side of each building is placed close to the lot line on account of the shade cast by the houses which would prevent the growing of flowers and shrubbery.

Public utilities and facilities.—The water system is dual: one for drinking and washing purposes, from a tank fed with spring water, and the other fed from the lake, the water of which is used only for sanitary fixtures, lawn sprinkling, and fire purposes. A dual system of storm and sanitary sewers has been installed, and the local public utility company furnishes electric current with which all houses are provided. Mains and house connections for fuel gas have been provided throughout in anticipation of the extension to Morgan Park of the city gas mains which will probably take place in 1918. All streets and alleys have been paved with concrete at the expense of the company. The Morgan Park Co., moreover, provides the necessary fire protection and attends to the daily collection of garbage and rubbish, street cleaning, snow removal, fuel distribution, and policing.

As stated, sewage is carried in a separate system and discharged into the lake, in like manner as in all other parts of the city, though the system has been so laid out that a sewage-treating plant can be

installed at any time. Storm water is drained to the ravines and lake through a separate system.

All gas, water, and sewer lines are laid in the alleys. On account of the severe climate, water and sewer lines are laid seven feet deep. A fire hydrant is located at the curb in the center of each block, the longest block being 750 feet. Fire hydrants are also located at street and alley intersections.

All wiring is underground, and hence no poles are used save those necessary to carry the street lights and trolley wires. The electric lines for street lighting are laid in the grass strip between the curb and sidewalk. The electric and telephone conduits which serve the houses have been laid longitudinally through the lines of houses.

There is a large community garage, for the use of which a low monthly charge per car is made. This garage accommodates 42 cars, is steam heated, fireproof, and fully equipped with supply and repair shop. Other smaller community garages of 10 stalls each are provided for the more distant residence sections. The community has a provision store operated by the Morgan Park Co., and a number of independent stores and offices in the same building.

Educational, recreational, and health facilities.—The city of Duluth has erected a schoolhouse and an extensive playground on land donated by the Morgan Park Co. The Gary or Wirt system of education is applied in this school, which is equipped with auditorium, gymnasium, library, workshops, and laboratories.

Land has also been set aside by the Morgan Park Co. for two churches, one representing the Catholic faith, the other the Protestant. The Catholic Church is in course of erection and the Protestants in the community have agreed to form a single church body, and are organized as the United Protestant Church of Morgan Park.

An area of approximately 8 acres has been set aside for a clubhouse and recreation grounds. The clubhouse and its recreation grounds, completely equipped, are provided by the Morgan Park Co. and leased free of rent by the company to the Morgan Park Club, an incorporated organization composed of the employees. The constitution and by-laws for the conduct of the clubhouse were drawn up by the employees and approved by the company prior to leasing the property to the club.

The clubhouse has outside dimensions of 156½ feet by 220 feet; and is in the form of four distinct wings and a central portion; it is one story and basement high. It is built of cement stucco, the curtain walls and roof being supported by heavy concrete buttresses; it conforms to the general architecture of the community. The clubhouse and its equipment cost approximately \$127,000; the construc-



FIG. 2.—MAIN AVENUE.

Note central parking with street car track; also variety in view secured by alternating different types of houses, differing porches and roof lines.

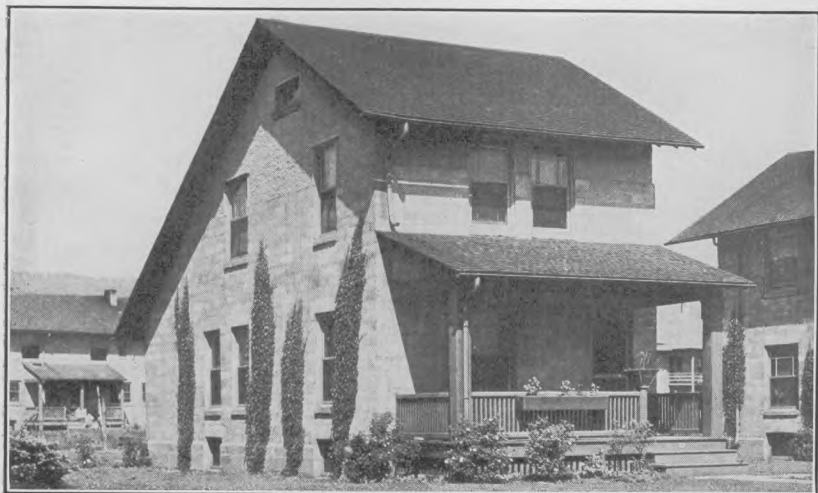


FIG. 3.—FIVE-ROOM ONE-FAMILY HOUSE FOR STAFF EMPLOYEES AND SKILLED LABORERS.

Lot 50 feet front; cost, exclusive of lot, \$3,367; rent, \$20 per month. Furnace heated; all modern improvements.



FIG. 4.—GENERAL VIEW OF THE TERRACE OR ROW HOUSES OF THE UNSKILLED LABORERS.

Known as Block 33 in the town site.



FIG. 5.—VIEW OF LOW-RENTAL ROW OR TERRACE HOUSES, WITH NEIGHBORHOOD CLUB BUILDING IN THE FOREGROUND.



FIG. 6.—FRONT VIEW OF LOW-RENTAL ROW HOUSE ACCOMMODATING EIGHT FAMILIES.

Dwellings in central gable have 6 rooms each; others, 4 rooms each.



FIG. 7.—REAR VIEW OF LOW-RENTAL ROW OR TERRACE HOUSE.

Note coal bins (half-ton capacity) provided for each dwelling; also raised roof dormers where bathrooms are placed. (See plans in Fig. 17.)

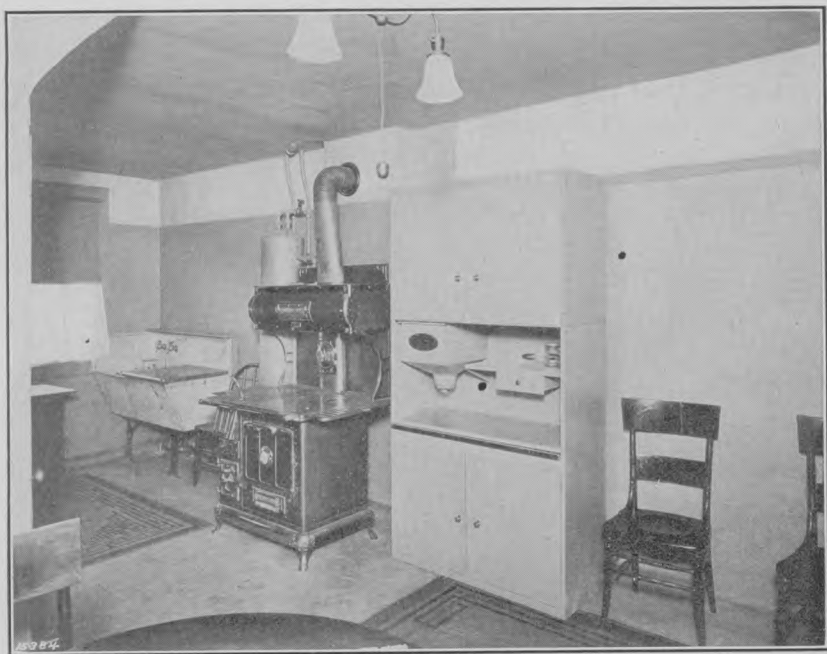


FIG. 8.—INTERIOR VIEW OF KITCHEN AND EQUIPMENT OF LOW-RENTAL HOUSES.
Note combination sink and laundry tubs.



FIG. 9.—INTERIOR VIEW OF THE BUNK HOUSE. STEEL FRAME BUNKS.

tion and equipment of the recreation grounds cost \$26,000. The clubhouse is equipped with a gymnasium and swimming pool, an auditorium with stage, smaller lecture rooms and class rooms, a men's club section comprising a reading and reception room, a women's club section comprising reception and reading rooms and kitchen, and a juniors' club section for boys and girls. As may be inferred from this description, it is adapted equally well for Y. M. C. A. activities and for general club purposes.

In connection with the low-rental houses a separate club building or neighborhood house, costing about \$18,500, with headquarters for the social service director, has been provided. At the present time the school building is being used as a community center where, in the evening, motion pictures are exhibited, basket ball played, and gymnasium classes, educational classes, dances, and social gatherings are held.

Opportunities for outdoor sport are afforded on the school and clubhouse grounds already mentioned. Also, a baseball and football ground, tennis courts, and a skating rink are provided elsewhere in the park. There are also possibilities for boating, bathing, and camping at the Morgan Park Boat Club. The summer camp equipment cost about \$6,000.

A modern hospital with the latest equipment has been provided at an expense of about \$70,000. The hospital is equipped to accommodate 32 patients. One of its principal features is the provision of two large screened-in porches used as solariums. It is so placed as to command attractive views of the St. Louis River and is surrounded by extensive grounds.

Two public comfort stations and waiting rooms costing about \$5,500 have been provided adjacent to the car line, and waiting stations are included in the designs for buildings about to be constructed at street corners of the main thoroughfare.

Park benches and public drinking fountains have been located at several of the street intersections.

LABOR CAMP.

For carrying on the earlier construction work of the steel plant and of developing the town site, temporary bunk houses, including mess quarters, were constructed by the contractors. These were rough structures with tar paper exteriors. During the season of 1917 a modern sanitary camp was constructed by the Morgan Park Co., to house additional extra labor in the plant and for construction work on the town site, the older camps being dismantled as being insanitary and inadequate. The layout of the camp buildings is shown in Fig. 10.

All the new camp buildings are of frame construction, set on piers sunk to solid ground, the lower parts being screened for 18 inches

below ground by wire mesh to keep out rats and other burrowing animals. Inside walls are 8 feet 2 inches high. The exterior is of tar paper on the studs, covered with 4-inch drop siding and painted. The interior wall is of tar paper on studs ceiled with 4-inch material, and varnished. The floors are double with tar paper between, and the roof of composition paper. Modern plumbing is installed. The camp is heated by stoves and is lighted by electricity. Figs. 11 and 12 show the details of the arrangement of the camp and Fig. 9 shows a view of the interior of the bunk house.

Included as a part of this construction camp is an employment office for the contractors, in which is located the medical examination room used in examination of men who seek employment. There is also a separate boarding camp suitably arranged for women. No women, however, have so far been employed at the camp. Among the special features of the camp should be noted the club building equipped with a small store, reading matter, and music, and the separate bath and wash houses, one in connection with the foreman's bunk house and the other for the labor force. There is also a laundry house where the men may wash their working clothes.

The kitchen is equipped with a separate bakeshop with a capacity of 220 loaves. All the bread, pastry, and cake used in the camps is made here. There is also a root cellar below the kitchen floor and a large ice box and meat-cutting room well screened.

All washing fixtures are of the "flowing stream" type, to avoid the danger of transmission of disease by common use of washbowls. Sanitary drinking fountains are provided throughout. Shower baths are provided in the central washhouse and a supply of hot water maintained. All windows and doors are screened.

The whole camp accommodates about 400 employees and provides quarters for 10 women. It cost approximately \$31,500, including the sewers, water lines, roads, and lights.

The camp is operated by a lessee—a company which manages several railroad and logging camps in the vicinity. This lessee provides all the bedding, kitchen and dining-room utensils, and pays the cost of all renewals of every kind except construction repairs. The Morgan Park Co. supplies the lessee, free of charge, with a reasonable amount of ice and fuel and maintains the walks and roads and the recreation facilities. The lessee is not charged with any rental.

In return for the concession the lessee agrees that until further notice the rates charged for room and board shall not exceed \$6.25 per week; that he shall maintain the buildings, grounds, and equipment in good condition; and that the sanitary and fire inspectors shall have authority to require the lessee to conform to the standards required by the company. The lessee is required to execute and file

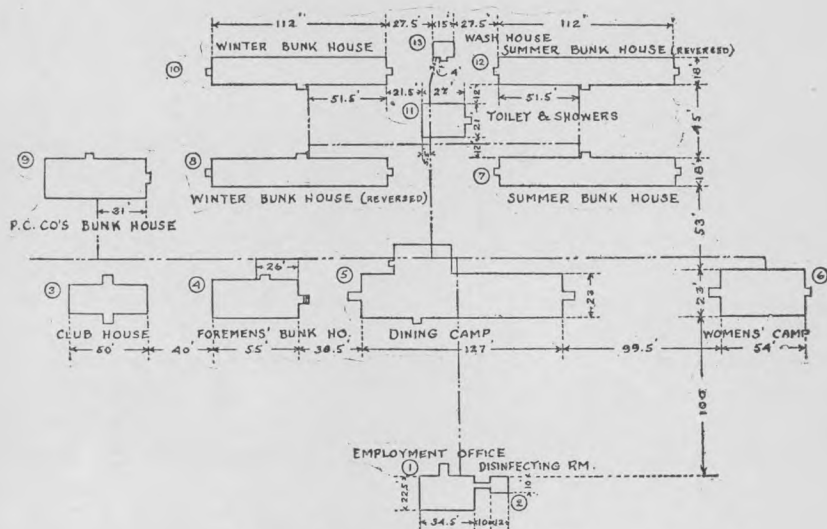


FIG. 10.—LAYOUT OF CAMP BUILDINGS.

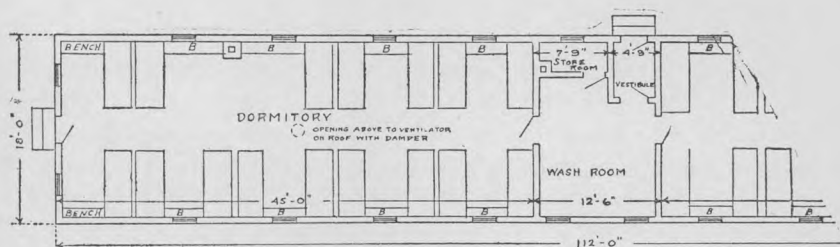


FIG. 11.—FLOOR PLANS OF THE BUNK HOUSE, SHOWING ARRANGEMENT OF BUNKS AND BENCHES.

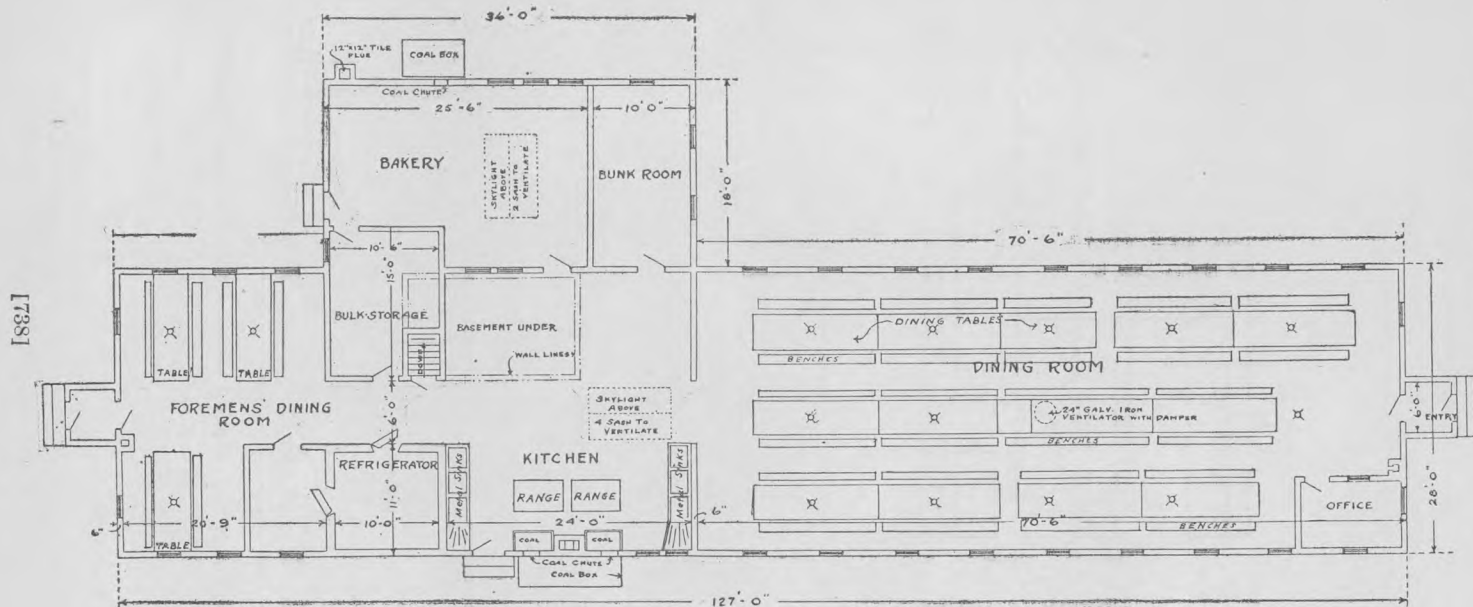


FIG. 12.—FLOOR PLAN OF THE BOARDING CAMP.

with the company a liability bond to cover the value of company equipment and to account to the company at the termination of the lease for all such property, and to make periodical inventories to the company of the articles supplied by the company.

The lessee is responsible for collection of his own bills, and agrees not to retain in his employ any camp employee who is troublesome, diseased, or objectionable, and to eject any boarder of like character. He may not engage employees other than those specified by the Morgan Park Co., nor house colored persons. Gambling and the use of intoxicants on the premises are prohibited.

HOUSES OF THE COMMUNITY.

All permanent houses and buildings in the community are of concrete material and practically fireproof, except as regards the roofs of the earlier-built houses, which are of cedar shingles. The exterior walls of the better houses are constructed of T-shaped machine-molded concrete blocks and of hand-molded concrete bricks in the later houses. The floors are of hardwood, laid over reinforced concrete. The inside walls are plastered and tinted. In the low-rental houses the walls are of stucco on metal lath, and the interior plastered and covered with a special washable fabric which prevents cracking of the plaster; the floors are of cement.

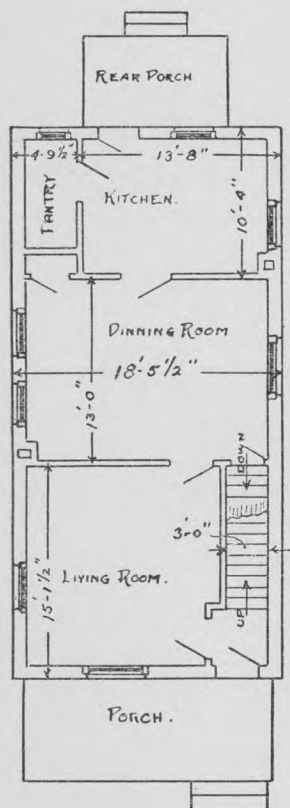
The houses of the better-paid skilled workmen and of the office staff and officials are characterized by variety in architecture and arrangement, by spacious lots with lawns, and by the provision of all modern sanitary equipment. There are altogether 36 types of buildings. There are provided 437 dwellings altogether, of which number 125, or 28.6 per cent, are single detached dwellings, and 312, or 71.4 per cent, are either detached flats, double flats, or rows, as is shown in the table following. All of the better-class houses have bathrooms, hot and cold water connections, and laundry tubs, and are heated by hot-air furnaces. The houses are furnished with electric-light fixtures, gas connections for cooking, kitchens with sanitary plumbing, and some have fireplaces. With the exception of fireplaces, and furnaces in most instances, some of the low-rental houses are similarly equipped.

DISTRIBUTION OF HOUSES ACCORDING TO TYPE AND NUMBER OF ROOMS.

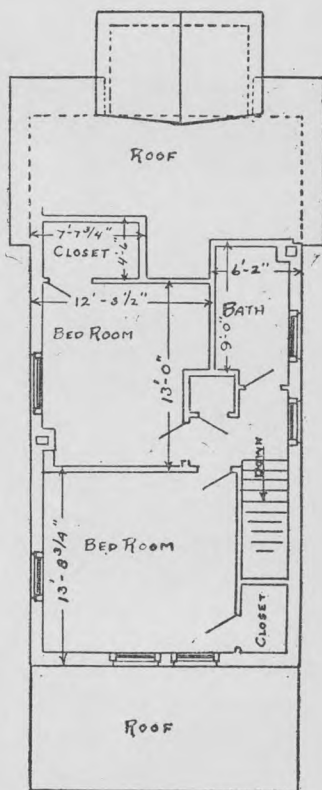
Type of house.	Number of dwellings having—						Total.	Per cent.
	4 rooms.	5 rooms.	6 rooms.	7 rooms.	8 rooms.	9 rooms.		
Single, detached.....		39	54	6	17	9	125	28.6
Flat, detached.....	40	70					110	25.2
Flat, double, detached.....	20	20					40	9.1
Row or terrace.....	146	2	14				162	37.1
Total.....	206	131	68	6	17	9	437	100.0
Per cent.....	47.1	30.0	15.5	1.4	4.0	2.0	100.0	.....

Better-type Houses.

The houses of the skilled workmen, office staff and superintendents are modern improved houses not differing essentially from what such employees would ordinarily provide for themselves as within their means.



FIRST STORY PLAN



SECOND STORY PLAN

FIG. 13.—FLOOR PLANS OF BETTER CLASS ONE-FAMILY HOUSE SHOWN IN FIG. 3.

Cost and rentals.—All 4-room houses in the eastern section of the town site rent at the rate of \$3.75 per room per month, or \$15 for the house. All other houses in the original development of the eastern section rent at the rate of \$4 per room per month. The newer houses constructed in 1916 and 1917 rent at a slightly higher rate as shown in the tabulation on the next page.

COST AND RENTALS OF BETTER CLASS OF HOUSES.

Type of house.	Number of dwellings erected.	Cost per dwelling. ¹	Rooms per dwelling.	Cost per room.	Rent per month.
<i>Houses constructed in 1914 and 1915.</i>					
Single, detached.....	30	\$3,353	5	\$671	\$20
	39	3,702	6	617	24
	10	5,592	8	699	32
Flat, detached.....	40	2,741	4	685	15
	70	2,850	5	570	20
Flat, double, detached.....	20	2,544	4	2,565	15
	20	2,544	5	2,565	20
Row, 4 dwellings to the row.....	60	2,144	4	536	15
Row, 6 dwellings to the row.....	60	2,008	4	502	15
Total.....	349	2,753	4.7	588	18
<i>Houses constructed in 1916 and 1917.³</i>					
Single, detached.....	7	5,750	5	1,150	28
	2	5,750	5	1,150	35
	4	6,450	6	1,075	35
	3	6,050	6	1,008	32
	4	6,050	6	1,008	35
	4	6,750	6	1,125	40
	4	7,750	7	1,107	40
	2	8,550	7	1,221	45
	7	8,390	8	1,049	50
	9	8,417	9	935	50
Total.....	46	7,163	6.8	1,049	40

¹ Not including cost of land and outside improvements.² Average for 4-room and 5-room flats.³ The houses built in 1916 and 1917 have fireproof roofs of cement tile, terra-cotta tile, asbestos, and metal shingles; concrete coal bins and vegetable cellars; inclosed rear porches, sun porches, and several other improvements involving considerable additional expense, and were constructed at a time when labor and materials were very high.

Construction and accommodations.—The walls of the 349 original houses are constructed of T-shaped concrete bricks, machine molded. The walls rest on concrete footings 5½ or 6 feet below the grade line. Below the grade line the wall is laid of two rows of blocks, staggered and reversed. Above the grade level only one row of blocks is used, and on the inside legs of the blocks one thickness of plaster board is nailed on a furring strip and covered with fiber plaster. There is thus made in the wall an air space.

The cellar floors are of concrete, as are also all the other floors. The upper floors are of reinforced concrete laid between the 2 by 6 inch joists. The concrete is poured from above between these joists, and surfaced so as to expose the joists and permit of nailing to it the wood flooring above and the ceiling boards below.

Experience has shown that machine-molded concrete blocks, if made too dry, are liable to be too porous and may cause dampness if exposed to violent and long-continued driving rains such as are characteristic of this locality. In this type of construction, and if excessive porosity occurs, the vertical air spaces within the walls may permit moisture to trickle down inside the wall till it reaches the concrete floor where it is arrested and caused to travel horizontally below the wood floor covering till it reaches an outlet in the concrete

floor and thus affects the ceilings of the rooms below. In the houses built in 1917 a hand-molded cement block of solid form $4\frac{1}{2}$ by 3 by 24 inches has been used instead of the machine-molded block. This type of block is used as a veneer on wood studding with plaster board and waterproof paper between and is superior in appearance, cost, and in insulating and waterproof qualities to the blocks used earlier.

In the row houses and flats, where three or more families are accommodated, inspection shows that noises from the adjoining apartments penetrate slightly through the party walls and floors. It is possible to hear voices, though not to distinguish words uttered in the adjoining apartment. It should be noted in this connection that the absence of street noises and wagon traffic render this com-

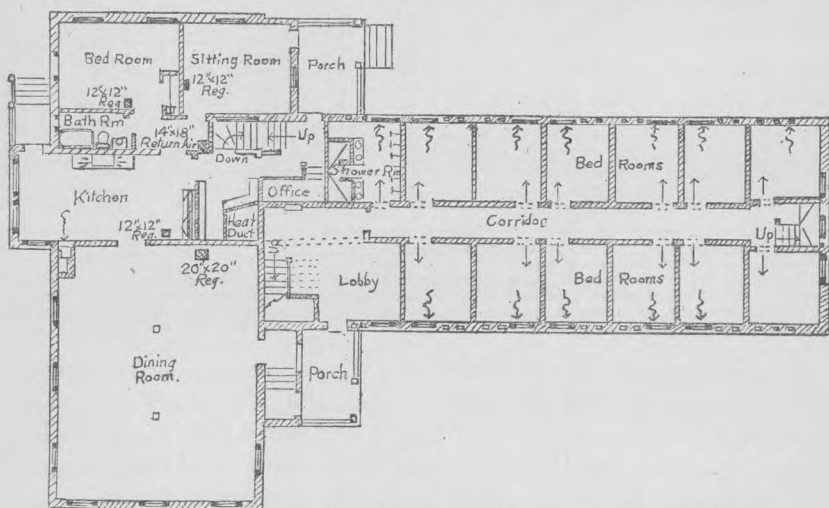


FIG. 14.—FIRST-FLOOR PLAN OF BOARDING HOUSE FOR STAFF EMPLOYEES.

Note separate entrances, one for caretaker's family, the other for the boarders, leading to a lobby.

munity unusually quiet and that noises not noticeable in cities are very noticeable in quiet residence sections. Nevertheless the manager of the housing company considers that the very fact of this quietness in such communities renders it desirable that experiments be carried on to make more soundproof the floors and walls of multiple houses of both the flat and terrace type, particularly for the reason that men working on night shifts and sleeping in the daytime are likely to be disturbed.

Boarding house for office staff.—Four boarding houses for the clerical force and technical men have been erected. They accommodate 74 men. The smallest room in any of these houses is 8 by 10 feet. Special furniture has been constructed for the rooms so as to secure the greatest economy of space. Plans of the first floor of the

largest one are shown in Fig. 14. The clubhouse dining room is also operated as a public dining room with à la carte and table d'hôte service, to avoid duplication of eating and hotel facilities in the park.

Houses of Low Rental.

For families of the lower-paid or unskilled laborers, multiple houses of the row type are provided, and for single men, boarding houses have been constructed. It should be noted that the row houses are not the ordinary continuous rows, extending unbroken for a whole block, as found in larger cities. They are short rows or groups, accommodating from four to ten families; each building is therefore a symmetrical architectural unit, and gives none of the monotony of the ordinary row of houses.

These houses, occupied largely by unskilled laborers, are located in a separate block (block 33) in the western half of the town site. Some features of the planning of the block (Fig. 15) are of interest as showing the thought given by the manager of the company to the housing of the lower-paid unskilled laborer.

(1) The alleys are located immediately in the rear of each line of houses, instead of in the center of the block. This reduces the amount of pavement necessary and is of special advantage in winter because of the shorter lengths of walk to be kept free from snow. It also permits the rear gardens to be individually fenced in and to be kept apart from the house lot proper when not in use.

(2) The buildings are arranged on the north end of the block in such manner as to screen from the street the view of the alleys and rear gardens. On the south end a screen of evergreens or latticework fences is to be provided.

(3) The boarding houses are kept entirely separate from the dwelling houses by a transverse alley and fence.

(4) The neighborhood house is located on the south end of the block, away from the boarding house, and convenient to the playground and park immediately adjoining on the south.

(5) A separate garden plot is provided for each family.

(6) The part immediately adjoining the dwellings at the rear, and extending to the alley, is gravelled and not grassed, as it is believed that it will not be kept up and hence may prove unsightly. Furthermore, since gutters on the houses are eliminated—to avoid trouble with ice in them in the severe climate—it has been necessary to prepare the ground to withstand wear from water drip.

The block provides for 42 families, one-half of which it is estimated may accommodate an additional boarder, though this practice is not encouraged; and 116 employees are estimated for the boarding houses. This makes a total of 179 employees to be housed in the

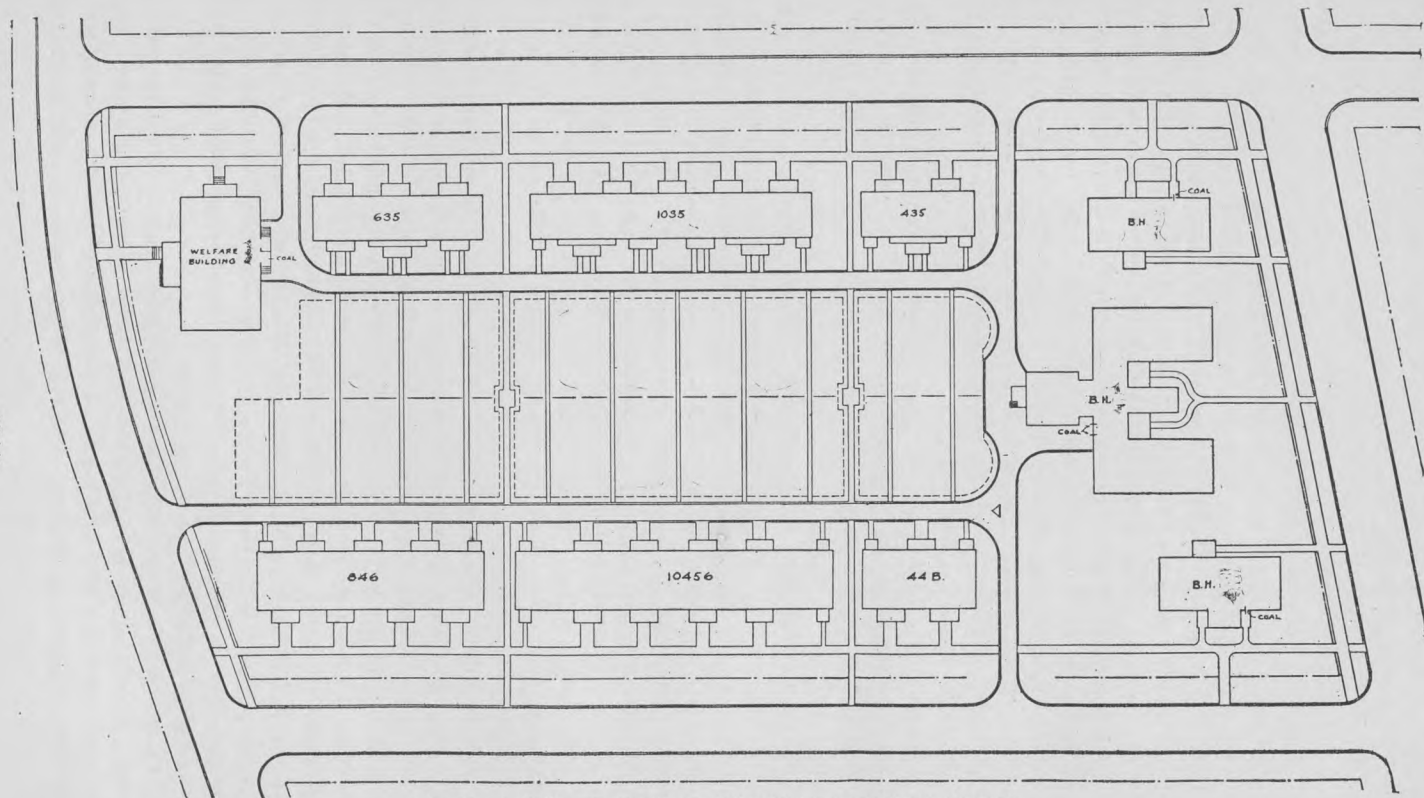


FIG. 15.—LAYOUT OF BLOCK 33, UNSKILLED LABORERS' HOUSES.

Note garden plots in center of block, double alleys, and obscuring of alley ends by placement of boarding houses and welfare building. The first figure, or figures, of the block number indicates the number of dwellings in the row: for example, 10456 is read as a 10-dwelling row containing 4, 5, and 6 room dwellings. B. H.—Boarding house.

block. The minimum population of the block will be about 280, the maximum probably 350.

Construction and accommodations.—The frames of the houses are of wood and the roofs of frame overlaid with roofing boards, waterproof paper, ventilating strips, and wood shingles. The floors are of reinforced concrete colored with pigment. The exteriors are of cement plaster, or stucco, on galvanized-wire lath, backed up with waterproof paper and plaster boards laid on the studs. The inside walls are plastered and covered with a special strong and durable washable fabric. The first floors are raised above the ground enough to secure an air space to insure dryness and to avoid frost trouble.

Sound transmission through party walls and floors has been considerably reduced as the result of experience with the earlier houses. The manager of the housing company states that still further improvements are possible and have been worked out for use in subsequent construction.

Certain special features of these houses should be noted. The bedrooms are large and have but one door in each, thus making provision for good housing standards should any of the families keep boarders.

The kitchen is large, so that it may be used also as a dining room. The living room in some cases is separated from the kitchen by a partition and door; in others the two practically form one large room occupying the entire first floor. This latter is a feature strongly recommended by the manager of the company. The majority of the houses are stove heated, as the manager feels that the type of labor to be housed may prefer stoves to the more elaborate or complicated furnace heating; also that the provision of both arrangements in otherwise similar types of houses in the same block is a valuable experiment.

The placing of coal bins on the rear porches of those houses which have no basements makes it possible to store a fuel supply on the premises without overcrowding the kitchen or necessitating coal sheds on the rear of the lots. These boxes contain approximately a half ton of coal. This feature is of particular importance because only eight of the houses in this low rental section have basements. A latticework on the porches at the rear is contemplated to avoid the usual objectionable appearance of such porches, resulting from their general use as storage places for ice boxes, washing machines, dish pans, and other kitchen appliances.

The houses are constructed with particular regard to winter conditions. Storm doors are provided, but these are so constructed that the upper panel can be removed in the summer and fly screens substituted. Metallic weather stripping is provided for all doors and

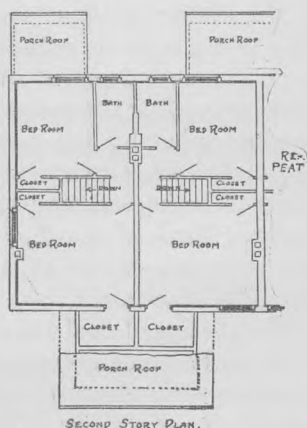
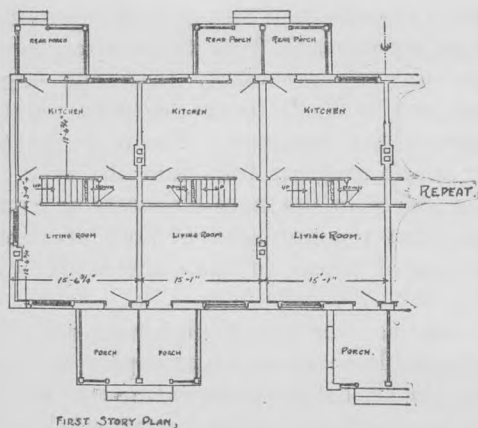


FIG. 16.—FLOOR PLANS AND FRONT ELEVATION OF 6 FAMILY ROW OR TERRACE HOUSE.

Lot, 120 feet front; 4 rooms for each family; basement; hot air furnace heat; all modern improvements.
Cost per dwelling, exclusive of land, \$2,008; rent, \$15 per month.

windows and all windows have double glass in each "light" to avoid the use of storm windows and the necessity for providing storage space for them.

The housing company lays great stress upon the importance of so designing the kitchens that the walls may be used to the greatest extent possible for storage of food, utensils, and china, and thus conserve floor space for other purposes. This is considered especially necessary where the houses are compactly arranged to save building cost and permit of low rentals and where basements are dispensed with.

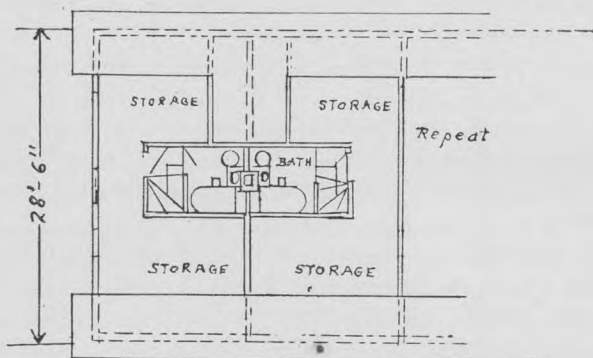
Costs and rentals.—There are 42 dwellings provided in the form of row houses, that is, buildings containing four or more dwellings side by side. Each dwelling is provided with a three-piece bathroom, kitchen sink, and laundry tub—combination laundry tub and sink in the kitchens of those houses without basements—and a hot-water tank connected with the stove (Fig 8). All houses are electrically lighted.

The cost of erecting these houses for the low-paid unskilled laborer averages about \$400 per room, not including the bathroom as a separate room. The 42 dwellings were built under a single contract in 1916 and 1917.

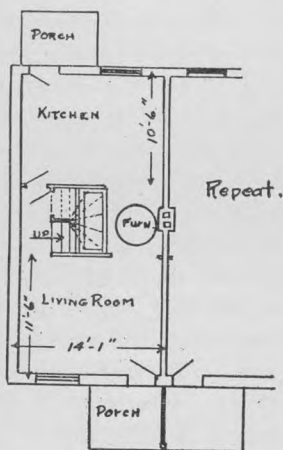
Of the 42 dwellings, 26 contain 4 rooms per dwelling, and of the 26, 12 are heated by stove, and rent for \$10 a month; 12 are heated by furnace placed on the first floor, as shown on the plans (Fig. 17), and rent for \$11 a month, while two having a basement and furnace rent for \$12 a month. Fourteen of the 42 contain 6 rooms each. Eight of these 14, heated by stoves, rent for \$15 a month; four, having furnace heat, rent for \$16.50; and two, each of which has a basement and is heated by a furnace, rent for \$18.75 per month. The two remaining dwellings, in the form of a double house, provide five rooms for each family unit, are heated by furnace, and rent for \$13.75 per month per family.

Boarding houses for unskilled labor.—Three boarding houses for the single men have been erected in the low-rental block described above. Two of these are identical in plan, except that one is the reverse of the other. Each of the last named accommodates 16 boarders in 8 double rooms and 9 in single rooms, together with 7 rooms for the family or administrative staff engaged to operate the house. The larger boarding house accommodates 44 boarders in 22 double rooms, and 22 in single rooms. Sixteen rooms are provided for the caretaker of the house and for administrative purposes. Single rooms are 8 feet 3 inches by 10 feet 8 inches, and double rooms generally 11 feet 3 inches by 10 feet 8 inches.

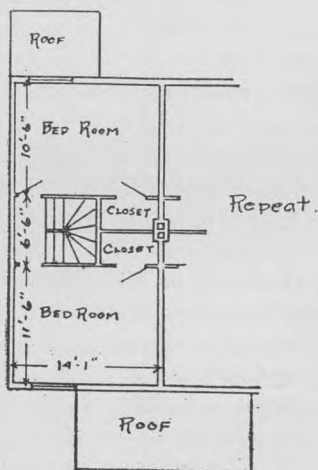
The construction of the boarding houses is the same as of the low-rental houses, i. e., cement stucco on wire lath, backed by waterproof paper and plaster board. All floors are of concrete, some of the floors



THIRD FLOOR PLAN.



FIRST FLOOR PLAN.



SECOND STORY PLAN.

FIG. 17.—PLANS AND ELEVATION OF LOW-RENTAL ROW HOUSE.

Note placing of furnace on first floor, house being without basement. Note also bathroom located on third floor.

being covered with a top flooring of maple; roofs are similar in construction to those of the dwelling houses; the interior finish is of painted pine; and walls are wood-fiber plaster on plaster board. Modern plumbing is installed throughout, and the houses are heated by hot-air furnaces, and lighted by electricity.

In the smaller boarding house the dining room, kitchen, living room, wash and toilet room, furnace room and a storage room are in the basement. There are also a toilet room and a living room for the management on the first floor, but none on the second floor.

In the larger boarding house the basement contains the furnace room, laundry, and storage room.

All boarding-house wash rooms have shower baths, washbowls with "flowing-stream" faucets, liquid-soap dispensers, sanitary drinking fountains, and toilets.

Each wing on each floor has independent toilet and washing facilities. Each wing, furthermore, is entirely isolated from the other by the central dining room on the first floor and the recreation room on the second floor; both of the latter are reached by an outside entrance, so arranged that every person entering the dining room or recreation room must pass the custodian's office. The kitchen and the servants' quarters are arranged in such a way as to secure complete isolation from the remainder of the building except through the dining room. The custodian has an office, a bedroom, and a toilet in connection. The dining room will seat all of the boarders at one time. The recreation room, on the second floor, above the dining room, is of the same size as the latter.

Neighborhood house for low-rental employees.—The welfare building, or neighborhood house as it is called, is designed to be the center for neighborhood recreation. The building is of the same construction and appearance as others in the block. It contains a small store where special foreign goods and foods are sold, a barber shop, and a neighborhood nurse office. There is a lounging room for the men and a meeting room for the women completely separated and having ready access to the nurse's office. The second floor is principally one large recreation room, which may be used for entertainments, lectures, dances, etc., with equal facility, and a kitchen attached thereto for conducting cooking classes for the women and children of the section and for use in connection with entertainments. The basement is devoted principally to classrooms or reading rooms, in order to give the maximum degree of quietude.

Up to the present time the store and barber shop have not been used as such, principally because the population in that section is yet too small. These rooms are being used as adjuncts to the recreational features now being carried on.

The entire building was designed to permit of the greatest "elasticity" in its use; that is, any one or more of the rooms can be used for several purposes, thus allowing the use of the building to change from time to time as the personnel or requirements of the adjacent residents demands.

As an example of this arrangement: As one of the two churches is still in course of construction and the other building (the Union Church) is being planned, all religious services and Sunday-school instruction are now carried on in the neighborhood house without interference with one another or with the secular functions. Red Cross work is conducted here on weekdays, as are meetings of the community club (the local civic league) and dances in the auditorium, a children's playroom in the "barber shop," a boy's club in the "store," and Sunday school in the men's and women's reading rooms, while cooking classes are held in the kitchen adjoining the auditorium.

All wash rooms are equipped with shower baths and sanitary features similar to those described in the men's boarding houses.

POLICY AND MANAGEMENT.

The houses of the community are rented only to employees of subsidiary companies of the United States Steel Corporation in the neighborhood and persons doing professional and mercantile business in the Park. No houses are sold. As noted, all types of employees are reached, although only to a limited extent. The Minnesota Steel Co., for whose employees the community was primarily established, employs, in round numbers, about 3,000 persons; the Universal Portland Cement Co. some 450, and the Morgan Park Co. about 50; as yet, only about 750 employees altogether are accommodated in the company town, including the boarding houses.

The tenants for company houses are selected generally in the order of their application. Other considerations may, however, have weight in the matter, such as the character of the applicant's services, his general desirability as a tenant, and the likelihood of his becoming a permanent employee.

An information card is kept of each tenant, which shows the make-up of his family and information concerning his past rental record.

Rent is collected once a month. The subsidiary companies whose employees are housed generally collect it by a deduction from the pay of the employees, upon their written request, and turn it over to the housing company. Employees requesting it, certain of the administrative staff, and nonemployees pay rents at the office of the company as in common house-renting practice.

A rental lease is signed for such terms as may be agreed upon. It does not, as is common in many company leases, contain a provision

to the effect that the lease is for the term of employment only, but does provide that notice to vacate in 30 days may be given.

The management of the Morgan Park Co. is in the hands of a resident manager and an office staff of about six persons. There is

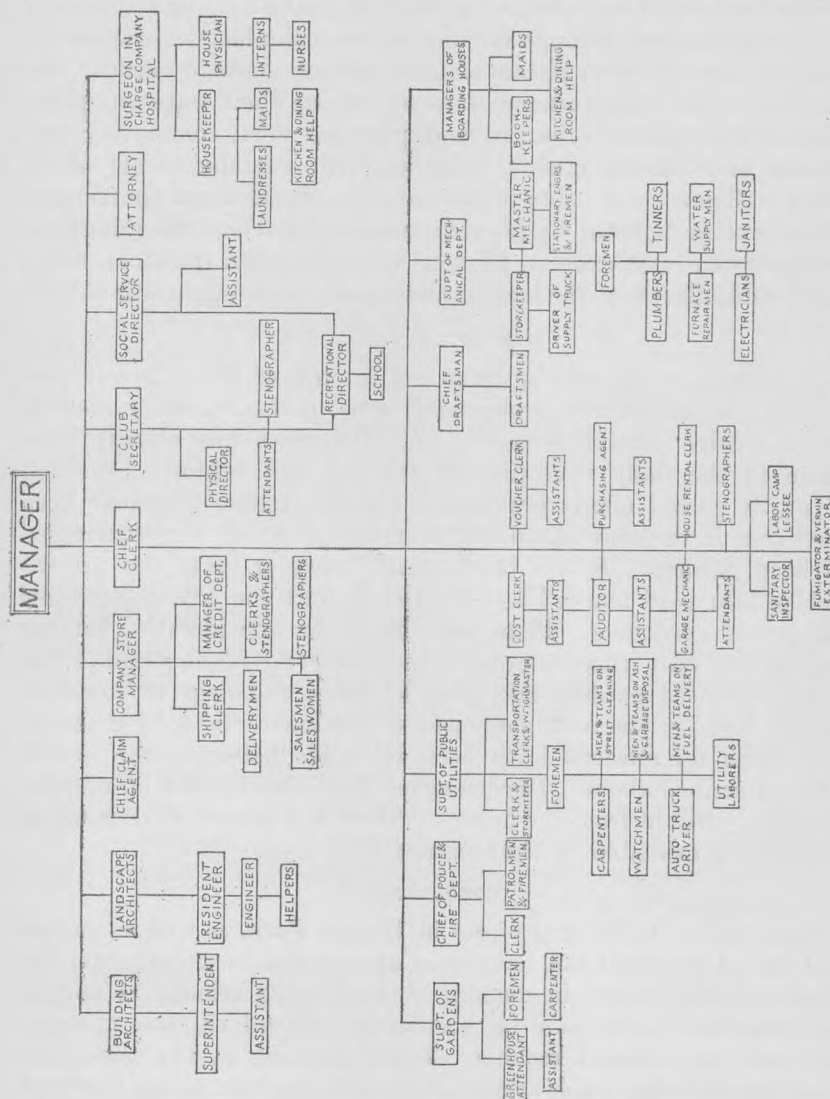


FIG. 18.—ORGANIZATION CHART OF THE MORGAN PARK CO.

also a maintenance force to attend to the work of landscape gardening, fuel distribution, street cleaning, water service, fire department, watchmen or police force, repair, garbage removal, sanitation, and general labor force. The organization chart (Fig. 18) shows the various activities carried on by the Morgan Park Co. The chart does

not aim to show so much the lines of authority as lines of communication in carrying on the varied community work. The chief clerk, it may be stated, is the office manager next in authority to the company manager.

The residents of the suburb are kept interested in their community by being informed, through circular letters, pamphlets, and a weekly bulletin, as to different phases of management—how to garden, how to take care of their furnaces, how to manage their water supply—keeping their lawns trimmed and premises neat, community recreation and entertainments, together with announcements of all social, religious, and educational events. Articles are contributed to the weekly bulletin by physicians, school-teachers, neighborhood nurse, agricultural experts, physical and recreation directors of the clubs, and officials of the local athletic and social organizations.

MAINTENANCE.

As housing is the sole business and interest of the company controlling the community, problems of house and community maintenance receive careful consideration. Reference has already been made to the daily collection of garbage and rubbish, provision of neatly paved alleys, lawns, and parked streets. Tenants keep their own lawns mowed, and by a system of prizes are encouraged to keep gardens. It has been found, however, that the present lack of rear-yard fences has militated against the greatest possible amount of gardening. Plans are now under consideration for the provision of neat fences in order to secure more gardening on the rear lots. Unfenced gardens encourage children and dogs to run over them. Even in the multiple houses of the low-rental section special allotments for gardens have been set aside between the double alleys described above. Garden space may also be had on unoccupied land, distant from the houses. There is a garden adviser whose services are available for the community.

CONCLUSION.

Many of the building projects in Morgan Park, as well as certain features of its social life, have been approached in an experimental manner. The factors in modern town-planning science as applied to industrial towns, can be accurately ascertained, the manager believes, only in that manner. Town planning in the sense here used applies to the whole social structure rather than to the narrower field of building construction and town site surveying only.

One of the considerations worthy of note is the attempt to avoid unnecessary duplication in buildings provided for educational and religious purposes, boarding facilities for single men and women, public service and social and recreational organizations. Duplica-

tion in small store facilities has been avoided. Another is the endeavor to stimulate and direct gardening, playground activities, and indoor and outdoor amusements for children and adults, public entertainments, domestic science, night school work, and hygienics. And a third is the attempt to assist the residents of an industrial town under company management in developing a civic league or community club to take an interest in matters concerning the relations of one resident with another and their joint relation to the company, so that company control may be exercised to the minimum and self-government developed to the maximum degree believed to be consistent with the proper administration of the property.

The management has avoided the issuing of printed regulations or prohibitions, preferring the plan of suggestion and example in obtaining cooperation with its work. It is realized that the company has gained by securing more efficient and contented employees, while the employees have gained through the improved environment created, among other gains being probably better houses for a relatively less rental.

These advantages, however, can only be maintained permanently so long as the steel corporation retains title to the land or transfers title to the community for cost plus a reasonable profit. If the steel corporation or the community allows speculators or investors to capitalize community benefits into land values and to charge rents based on the principle of charging what the "traffic will bear," the housing and social conditions in Morgan Park will become like those in all other communities where unrestricted private ownership of land flourishes, as exemplified in neighboring individually owned and operated suburbs where improvements have not kept pace with housing development, where many relatively low grade houses have been put up, where, in a word, all the conditions of a boom town exist.

EFFECT OF THE AIR HAMMER ON THE HANDS OF STONECUTTERS.

BY ALICE HAMILTON, M. D.

During the spring of 1917 the Bureau of Labor Statistics began the study of a curious condition in the hands of stonecutters which seemed to follow the use of the air hammer in cutting and carving stone. The information came from the limestone workers of Indiana, but inquiry showed that the same affection was to be found among workers in other branches of the stone trade. The bureau then authorized a visit to the limestone belt of Indiana, the granite cutting centers in Quincy, Mass., and Barre, Vt., the marble shops of Long Island City, and the sandstone mills of northern Ohio.

Since the condition in the men's hands, which was the object of this inquiry, comes on under the influence of cold, I made my visits during January, February, and March of 1918, on days when the temperature was between 14° F. and 34° F. I discovered a very clearly defined localized anemia of certain fingers, which is undoubtedly associated with the use of the air hammer and which, while it lasts, makes the fingers numb and clumsy, causing the workman more or less discomfort and sometimes hampering his work.

The pneumatic hammer consists of a handle containing the hammer, which is driven by compressed air, and is said to deliver from 3,000 to 3,500 strokes a minute. The amount of air delivered through a hammer can be controlled by a valve in the pipe conveying the air, and the air escapes through an exhaust opening in the handle itself. This handle is held in the right hand in various ways, sometimes with the palm of the hand down and all the fingers grasping the handle equally, or it may be held between the thumb, middle, and index fingers, very much as a pen is held. Hammers are of various sizes; there is the small half-inch hammer, the medium five-eighths or three-fourths inch, and the large 1-inch hammer. The tool (the chisel) is held by the left hand against the hammer and with the cutting edge pressed against the stone. Italian workmen usually slip the tool between the little and ring fingers, so that it rests against the side of the little finger, where a large callus develops. Other workmen grasp the tool with all four fingers. In either case the little and ring fingers, being nearest the cutting end of the tool, are pressed most closely against it in order to guide it.

The conditions under which stone is cut differ somewhat for the four kinds of stone. In the limestone region of Indiana and in the sandstone region of Ohio there are large mills, heated somewhat in winter so that the temperature is perhaps 10° or rarely 20° higher indoors than outside. This would mean that when the thermometer stands at 15° F. the working atmosphere will be at about freezing point, or perhaps as high as 38° F. In Quincy and in Barre granite is cut in sheds, which in the former town are wide open, while in Barre they are inclosed and sometimes slightly warmed. They are, however, colder than the western mills, and in very cold weather work has to be suspended. The marble shops in Long Island City are inclosed and usually better heated than any of the other stonecutting shops I visited. I did not see a place in any mill, shop, or shed where a man could warm his hands conveniently.

The air hammer is used in cutting all four kinds of stone but not to the same extent in all. Limestone cutters use it almost all the time. When one enters a mill in the limestone region the stonecutters, with a very few exceptions, are all seen to be using the air hammer. It is rare

to see more than two or three men wielding the mallet, unless they are apprentices who are required to use it. In cutting limestone the air hammer can be used both for shaping the block of stone, a process known as "roughing out," and for cleaning up or making a smooth surface. Many men say that the roughing out should really be done with the mallet, but in practice the air hammer is used. Limestone cutters use all sizes of tools; the carvers use the smaller ones chiefly or entirely. Marble cutters come next in their use of the air hammer. They work more with the mallet than do the limestone men, but the greater part of their work is with the pneumatic tool, and usually the smaller sizes.

Granite cutters can not use this machine for shaping the block. That must be done by hand, because the stone is so hard. For dressing the surface they use two machines, a large heavy surfacer with a big handle which is grasped in both hands and held upright, the tool pressing on the surface of the stone; and a smaller "bull-set" or "four-point," which also has a fairly large handle and a short tool, and which is also held perpendicularly in both hands and pressed against the surface of the stone. The tool in both these machines is held in place by the hammer and stone, never grasped or guided by the left hand. For lettering and carving, however, the granite worker uses the same sort of air hammer as is found in marble and limestone mills, and there are granite workers who use this tool all day long, but these are the exception. As a rule the men I questioned in the granite sheds use it only four, five, or six hours a day.

In sandstone the air hammer seems to be of little use. A mill I visited near Amherst, Ohio, had five air hammers for 30 men, and that number was quite sufficient. Sandstone does not require much tooling. It is used chiefly for paving stone, curbstones, grindstones, and exterior building stone. Much of the tooling required is done by hand, for the nature of the stone makes work with the air hammer difficult or impossible. I questioned 15 sandstone cutters and was told by 6 that they had never used the air hammer at all. Two had formerly used it in marblework, but not in sandstone, and 7 used it now and then for sandstone, but hardly more than half an hour during the day.

A description of one or two of the more marked cases of anemia in the fingers will show just what this condition is. The first one is a limestone cutter whom I saw early in the morning when the temperature was about 14° F. He had been out of doors for over half an hour, and in order to be able to show me his hands in a typical condition he had refrained from rubbing them violently and swinging his arms about, as he would ordinarily do to restore the circulation. The discomfort, however, had grown so intense in his fingers that he could

not bear it any longer and almost at once after I arrived he began rubbing and kneading and shaking his hands. The four fingers of his left hand were a dead greenish white and were shrunken, quite like the hand of a corpse. The whiteness involved all the little finger to the knuckle, but in the other fingers it stopped midway between knuckle and second joint. As he rubbed his hand the contrast between fingers and hand increased and at one stage it was very striking, the crimson and slightly swollen hand meeting the white, shrunken fingers abruptly, without any intermediate zone. On the palmar side the condition was not so distinct, for the skin was too thick and calloused to allow the color to show well.

The right hand was much less affected, the little finger escaped altogether, the three others were white, but not dead white, as far as the second joints, and there was a ring of white around the second phalanx of the thumb. After vigorous massage and beating of his arms back and forth over his chest, the blood gradually filled the fingers and the appearance then was fairly normal, showing only a moderately purplish red color, and no swelling.

This man is 39 years old and has cut stone for 22 years. While using the ordinary tools of his trade he had no trouble of this kind. Nine years ago he began to work with the air hammer and during the second winter after that he noticed that the ring finger of the left hand had begun to "go white." Gradually the little finger became involved, then the others, and, to a less extent, the fingers of the right hand. The trouble has progressed through the years and is still increasing. There is a good deal of pain in the fingers, especially on a cold morning. As long as the dead-white condition lasts there is no real pain, but discomfort enough to make him stop work and get the blood back into his fingers, for the stroke of the hammer on the tool he holds in the left hand is peculiarly intolerable when the fingers are white. As the blood comes back there is some sharp pain but it does not last. At no time, however, does the left hand feel quite natural, he is always conscious of it, indeed his whole left side, including the foot, feels differently from the right. If he holds his hands up for a few minutes they grow numb and this is annoying when he tries to read a newspaper and must continually put it down to coax the blood back into his hands. He has lost sensitiveness in the fingers, so that he can not put his left hand in his pocket and distinguish a coin by the touch; he must look at it to see if it is a dime or a nickle. He is clumsy in the morning when buttoning his clothes and lacing his boots. If he works all day with the hammer he has a restless, disturbed night.

The second man is a marble cutter who has followed his trade for 20 years and has had trouble with his fingers from the fifth year on

He uses the small tool almost entirely. The four fingers of the left hand were white, the little finger over the whole extent, the next two over the two distal joints, the index over the first joint. On the right hand the tips of all four fingers were white and there were irregular streaks of white along the index and middle fingers. This man complained of the pain in his fingers both when they were white and when the blood first began to come back, but his chief complaint was of nervousness from the vibration of the hammer; he said it upset him, made him "as nervous as a kitten," spoiled his sleep, made him irritable. Though he is troubled chiefly in winter, he can not put his hands in cold water in summer without making his fingers "go white." In winter, if he is working indoors he is not really hampered by the numbness in his fingers, but he can not do any fine work out of doors if the weather is at all cold for the numbness makes his fingers clumsy.

The third is a granite cutter who has used the air hammer for 18 years and who began to feel the effects in his fingers after two years. Now his left hand shows all of the little, ring, and middle fingers involved and all but one-third of the index finger. On the right hand most of the index and middle fingers and the tips of the ring and little fingers are blanched, but not so strikingly so as the fingers of the left hand. He is "bothered" a good deal by the numbness in winter and it comes on whenever he handles a cold tool, after which he finds it hard to do any fine work till he has managed to get the circulation started again.

There is no need to multiply these descriptions. With a few variations the men from whom full histories could be obtained told much the same tale. These stonecutters are exceptionally good material for such a study, for they are intelligent men, usually of good education and able to note and describe their symptoms clearly. There is among some of them a tendency to dwell perhaps too much on the nervous disorders which they believe are caused by the tiring vibrations of the hammer, and which give them a good deal of worry. Of nearly all of the men, however, this is not true. Many of them have no complaint at all, except of the actual condition in the hands, but others suffer from more or less distressing symptoms which they think are caused by the vibrating hammer. The most common symptom is covered by that vague term "nervousness." They say that they feel jumpy and irritable, upset by a slamming door, unable to settle down after a full day's work with the tool. Their sleep is disturbed and restless, and they have buzzing or ringing in the ears. The numbness in the hands is inconvenient, for they can not hold a newspaper or a book for any length of time without being forced to put it down, and rub and knead their hands. Sometimes they have

to sleep with the left arm hanging down from the bed, or the numbness will waken them, and then they must get up and swing the arms about or bathe the hands in hot water. Some of them are not troubled at all in summer, others get numb fingers on chilly days, or if they put their hands in cold water. A few men complain of trouble with the left foot, which is colder than the right.

The blanching of the fingers is very much the same in all these cases, usually involving in right-handed men the little, ring, and middle fingers of the left hand, seldom the index and never the thumb, while on the right hand it is usually the tips of all the fingers and perhaps the larger part of the index and part of the thumb, but the whiteness on the right hand is less uniform and less striking than on the left, and this hand may escape entirely. There is sometimes a patch of white in the palm of the left hand. In left-handed men the condition in the hands is reversed. Many men told me that the white area on their hands sometimes extended as far as the wrists on the ulnar side, but I never saw it reach even quite to the knuckles.

There are several reasons why the left hand is more affected than the right. In the first place a greater effort must be made by the left hand in grasping the tool, holding one end against the hammer, and guiding and pressing the other end along the surface of the stone. The fingers often clasp the tool so tightly that the blood is driven from them, and this, together with the vibration of the tool from the blows of the hammer and the influence of the cold, seems to set up a condition in the blood vessels which leads to spasmodic contractions and the resulting blanched and shrunken condition. The right hand can hold the larger hammer more loosely and can shift it in different ways during work, and the vibrations are not felt so severely as in the left hand.

Some men continue to be liable to attacks of white fingers even after they have given up stonecutting for several years. I found 8 men of whom this is true, 4 of them formerly granite cutters, 2 workers in marble, and 2 in limestone. They have not cut stone for periods ranging from 4 to 12 years, but they still have numb, white fingers at times in cold weather. One of the granite workers came into the office of the union while I was there, and I was struck at once by the dead white, shrunken condition of his left hand. He told me that he was no longer cutting granite, had not worked in the shed for four years, yet the attacks still occur.

It is very important to know whether this condition of the hands affects the men's skill or strength, whether it lessens their earning capacity in case they wish to take up other work than stonecutting. Few of the men whom I saw complained of loss of sensation in the fingers great enough to hamper them, except when the fingers were

actually numb. The majority noticed no change at all during the intervals between attacks of numbness. But, of course, an occupation which had to be carried on in the cold might be impossible, just because the numbness would inevitably come on. For instance, one man had tried to work in an automobile repair shop, and found that on a cold day he could not pick up or hold small screws or small machine parts with his left hand. Another had taken up work which involved handling a crowbar sometimes, and when he did this in winter his left hand would grow numb and so clumsy that he could not use it with skill. The only men who complained of clumsiness in their own work from numb fingers were marble workers who require a high degree of skill and who find that cold weather often makes it impossible for them to do their best work, especially if they are out of doors.

There were altogether 123 workmen in the three branches of soft stone, marble, and granite work whom I examined, and I found only 17 who had not had the so-called "dead fingers." If we omit those who sought me out in order to show me their hands and who might be looked upon as picked cases, there remain 102 whom I saw in the mills and who were not selected at all, but taken as they came. Only 16 of these were quite free from the trouble.

The condition is so common in the limestone, marble, and granite industries that any inquiry about it meets with instant response. One does not have to stop to explain and describe. In Quincy and in Barre many of the granite workers are Italians who speak little English, but as soon as they understood my question they would hold up in answer one, two, three, or four fingers of the left hand, but often would shake the head when I then pointed to the right hand. It had been suggested to the Bureau that the agitation about this condition among the Indiana limestone men had been influenced by the fact that at the time there was a controversy between the employers and the union concerning the use of this air hammer; but there was no controversy in the granite or marble shops, and yet the testimony given by the men in these two fields was much the same as that given by the limestone men. Marble cutters and limestone cutters are obliged to use the air hammer more continuously than are the granite cutters, and from these two classes of men I heard more complaint of discomfort and pain from the use of the tool than I heard from the granite cutters, who as a rule do not use it for more than half their working hours.

Among sandstone cutters spastic anemia of the fingers is not found. I visited a mill in which 15 men were at work at the time and the only ones who had ever had dead fingers were 3 former marble cutters. They had used the air hammer in marblework and their fingers had

shown the effect, but in working with sandstone they had used it so little that the trouble was passing away. The other 12 either used it not at all or very little. This is the rule in sandstone work, and the result is that dead fingers are not found among the men in this branch of the stone trade.

The men who show no effects from the air hammer usually attribute their immunity to a more skillful use of the tool. They tell one that they hold the chisel lightly and never cramp their fingers round it, or they wind thick cotton or wool round the left hand to protect it from the cold. However, I have seen blanched fingers in many men who wore thick gloves on their left hands. One marble worker told me that the condition of the machine made a great deal of difference. He always had trouble with his hands if he worked in a shop where they used old hammers and did not keep them in order, for these grow loose and the tool slips unless it is held tightly and the vibration is worse. With a new small tool he has no trouble at all. Certainly some men can use the air hammer for long periods and show no effect from it. I saw a limestone carver who had worked with it 23 years, a granite cutter who had done so for 18 years all day long, and 2 marble cutters who had used it quite steadily for 15 years, and none of them had any numbness of the fingers.

There can be no reasonable doubt that this spastic anemia of the stonecutters' fingers is caused by the use of the air hammer. The more continuously it is used, the greater the number of men affected and the more pronounced the condition. The greatest complaint is heard from the limestone cutters and marble workers who use the air hammer for the greater part of their working time. Granite cutters have numb fingers also, but do not seem to experience the discomfort that men in the other two branches do, and most granite workers do not use the hammer much more than half their time. Sandstone cutters use it little or not at all and this is the one stone trade in which numb fingers are almost unknown. Not one man was found in any of the stone trades who had this condition of the hands and had not used the air hammer.

SUMMARY.

Among men who use the air hammer for cutting stone there appears very commonly a disturbance in the circulation of the hands, which consists in spasmodic contraction of the blood vessels of certain fingers, making them blanched, shrunken, and numb.

These attacks come on under the influence of cold, and are most marked, not while the man is at work with the hammer, but usually early in the morning or after work. The fingers affected are in right-handed men the little, ring, middle, and more rarely, the index of the left hand, and the tips of the fingers of the right hand, with some-

times the whole of the index finger and sometimes the thumb. In left-handed men this condition in the two hands is reversed.

The fingers affected are numb and clumsy, while the vascular spasm persists. As it passes over there may be decided discomfort and even pain, but the hands soon become normal in appearance and as a usual thing the men do not complain of discomfort between the attacks. There are no serious secondary effects following these attacks.

The condition is undoubtedly caused by the use of the air hammer; it is most marked in those branches of stonework where the air hammer is most continuously used and it is absent only in the one branch where the air hammer is used little or not at all. Stonecutters who do not use the air hammer do not have this condition of the fingers.

Apparently once the spastic anemia has been set up it is very slow in disappearing. Men who have given up the use of the air hammer for many years still may have their fingers turn white and numb in cold weather.

According to the opinion of the majority of stonecutters, the condition does not impair the skill in the fingers for ordinary interior stonecutting and carving, but may make it impossible for a man to do outside cutting in cold weather or to take up a skilled trade which exposes the hands to cold.

The trouble seems to be caused by three factors—long continued muscular contraction of the fingers in holding the tool, the vibrations of the tool, and cold. It is increased by too continuous use of the air hammer, by grasping the tool too tightly, by using a worn, loose air hammer, and by cold in the working place. If these features can be eliminated the trouble can probably be decidedly lessened.

FREIGHT HANDLERS ON PASSENGER-FREIGHT STEAMERS ON THE GREAT LAKES.

BY EMIL FRANKEL.

The freight handlers, sometimes called deck hands, represent a type of labor peculiar to the passenger-freight carrying vessels of the Great Lakes. While the work of the freight handlers ordinarily is that of longshoremen or stevedores, they also sail on the vessel, and thus become a part of the crew. The trips which these passenger-freight steamers make are usually short ones. They touch ports on their voyage at which men are not readily available to do the loading or unloading of cargo. Some places are touched at night and stops are made only long enough to discharge freight and take on cargo. It becomes necessary therefore to carry men aboard the vessel who may be called and set to work at any time of the day or night.

There are about seven passenger-freight lines plying from the ports of Chicago, Detroit, and Cleveland, which in the operating of their boats requires the services of freight handlers. The number of freight handlers carried aboard ship ranges from 5 to 30, depending upon the size and the run of the vessel, and the bulk of the cargoes, and is further subject to industrial and seasonal changes.

Freight handlers are generally hired by the first mate and usually work under the direction of one of the mates. Their work is principally that of loading or unloading the cargo. They are given heavy hand trucks for wheeling the freight from the pier into the freight deck where they stow it away. While they have nothing to do with the navigation of the vessel, some of the freight handlers have to help make the ship fast and take care of the lines. The handling of the freight requires much bodily strength, but little skill. The work being of low grade, the compensation therefor is correspondingly low, and for that reason attractive only to certain types of workers. A description of their types and racial and national composition would be interesting, but an attempt clearly to define them would, because of the great variety and complexity of types, be very difficult.

As the freight handlers are largely recruited from the workers of large cities, it is but natural that they should reflect the particular racial composition and the general industrial status of the cities from which they come. Among these men may be found the "down and outs" who drift to the water front in search of any kind of a job; men, perhaps, who did not succeed in their trades or callings, or have broken down through drinking and are little fitted for regular work. There will be found the recently arrived immigrant who finds this kind of work a suitable makeshift, and the unemployed from the trades and industries to whom the work offers temporary means of obtaining food and shelter.

When there is an abundance of labor there is little difficulty in securing a sufficient number of men to fill the complement. There is usually a large number on hand to take the places of those who leave and to fill the gaps in the complement when the boat is ready to sail. During times when there is a scarcity of labor some companies have found it necessary to engage a man—perhaps a man who has himself been a freight handler and is thoroughly acquainted with them—for the special purpose of going into the lodging-house districts to "round up" men.

As explained previously, the work of a freight handler is generally considered to be a low type of labor, and the rates of wages have been at a correspondingly low level. For quite a number of years there have been little changes in the wage rates paid to this class of labor,

and it is only in the last two years, due largely to increased industrial activities and scarcity of men, that there have been some increases in the rates of wages paid. Most companies put a premium on the steady worker and have offered double rate of pay and sometimes more, to the man who works continuously for a certain period, usually for more than a week.

In 1914 and 1915, freight handlers were paid at the rate of 50 cents per day and board, and of \$1 to those who worked steadily for seven days or more. In 1916 and 1917, years of favorable employment situation, the daily wage rate was 75 cents, which was later increased to \$1.25; \$1.75 per day was paid during the same period to those who sailed on the same vessels continuously for a week or more. During 1917 some of the companies experienced difficulty in obtaining a sufficient number of men to work for the daily rate quoted above, and they changed the method, paying freight handlers 25 cents per hour for actual hours worked.

As freight handlers are not a part of the regular navigation crew, they do not, when the boat is out of port, have to stand watches, required by law of employees in the deck and engine departments. As stated previously, however, freight handlers may be required to work at any time of the day or night. Their hours of labor, generally speaking, are very irregular, and the length of the periods of continuous employment shows great variance. This may be ascribed to the industrial and seasonal fluctuations to which the movement of freight is subject, to the character of the freight to be carried, to the regularity or irregularity with which freight is delivered at the piers, to the length of the stays in port, and to weather conditions.

Because of these great variations in the working hours, it would be interesting to show existing conditions on all boats employing freight handlers and for the entire season. This, however, would be entirely beyond the scope of the present article. The following table, showing the actual hours worked by freight handlers on a boat running from Chicago to near-by points on the western shore of Lake Michigan, during a normally busy period of the summer season, may serve as a typical example.

HOURS OF LABOR OF FREIGHT HANDLERS FOR THE SEVEN DAYS ENDING JULY 13, 1917, ON ONE BOAT SELECTED AS TYPICAL.

Day.	Duration of periods of work on each specified day.									
	From—	To—	From—	To—	From—	To—	From—	To—	From—	To—
July 7.....	6.30 a.	8.00 a.	8.30 a.	12.00 m.	1.15 p.	1.45 p.	3.00 p.	3.15 p.	3.45 p.	4.00 p.
July 8.....	10.15 a.	12.00 m.	3.15 p.	4.15 p.	4.45 p.	5.30 p.				
July 9.....	9.00 a.	9.30 a.	11.15 a.	12.00 m.	1.00 p.	3.00 p.	4.00 p.	4.30 p.	5.30 p.	7.15 p.
July 10.....	1.15 a.	2.45 a.	5.00 a.	6.00 a.	7.00 a.	10.15 a.	11.00 a.	12.00 m.	1.15 p.	2.15 p.
July 11.....	5.15 a.	6.15 a.	7.30 a.	12.00 m.	1.15 p.	3.45 p.	4.45 p.	5.15 p.	5.45 p.	7.00 p.
July 12.....	3.45 a.	6.00 a.	7.00 a.	9.00 a.	10.30 a.	11.45 a.	2.15 p.	2.45 p.	3.30 p.	4.00 p.
July 13.....	5.15 a.	6.15 a.	7.30 a.	12.00 m.	1.00 p.	4.00 p.	4.30 p.	5.00 p.	5.30 p.	7.30 p.

HOURS OF LABOR OF FREIGHT HANDLERS FOR THE SEVEN DAYS ENDING JULY 13, 1917, ON ONE BOAT SELECTED AS TYPICAL—Concluded.

Day.	Duration of periods of work on each specified day.								Total time worked.	Time within which work was completed.
	From—	To—	From—	To—	From—	To—	From—	To—		
July 7.....	5.30 p.	6.00 p.							H. m.	H. m.
July 8.....									6 30	11 30
July 9.....									3 30	7 15
July 10.....	2.45 p.	3.15 p.	4.00 p.	5.30 p.	6.00 p.	7.15 p.	10.15 p.	11.30 p.	5 30	10 15
July 11.....									12 15	22 15
July 12.....	4.30 p.	5.30 p.	6.00 p.	7.00 p.	10.15 p.	11.45 p.			9 45	13 45
July 13.....									10 00	20 00
									11 00	14 15
Total.....									58 30	

Thus, on July 7, work for freight handlers on this boat began at 6.30 a. m. and lasted until 8 a. m. After a recess of half an hour work was continuous until 12 o'clock noon. After a pause of 1 hour and 15 minutes, the handling of freight was taken up again and, with three interruptions, one lasting 30 minutes, one 1 hour and 15 minutes, and the third 1 hour and 30 minutes, continued until 6 p. m. The actual time worked during this day was $6\frac{1}{2}$ hours, though the span during which these hours were completed was $11\frac{1}{2}$ hours. The next day, there being little freight to be moved, work did not begin until 10.15 a. m., and though the freight handling did not stop until 5.30 p. m. the actual working time amounted to only $3\frac{1}{2}$ hours. July 9 was a comparatively easy day, the day's work ending at 7.15 p. m. The next day, however, the men were called to handle the freight soon after midnight, working until 2.45 a. m. After a rest of 2 hours and 15 minutes they set to work again at 5 a. m., and with seven interruptions of work lasting from half an hour to 3 hours, they finally quit work at 11.30 p. m. The actual working time for this day was 12 hours and 15 minutes, though it took 22 hours and 15 minutes within which to complete this time. The next morning, July 11, work began at 5.15 a. m. and lasted until 7 p. m., during which time the actual working period was 9 hours and 45 minutes, and the time within which this was completed was 13 hours and 45 minutes. On July 12 the men began work at 3.45 a. m. and worked, with seven pauses of varying length, until 11.45 p. m., requiring 14 hours and 15 minutes of outside time in which to complete the 11 hours of actual time worked. The hours of work on July 13 were similar to those of July 11.

During the pauses in the work the freight handlers are free to lounge around the freight deck or go to their quarters. Some of these pauses are needed for meals, others for necessary sleep, though sleeping hours during the night are extremely irregular and in some

cases hardly long enough to offer sufficient rest, as the preceding table shows.

The following table gives a summary of the actual hours of work and the time required within which to complete these hours, and covers 110 working days of freight handlers on two passenger-freight boats, one plying from Chicago to points on the eastern shore, the others to points on the western shore of Lake Michigan:

WORKING DAYS OF FREIGHT HANDLERS CLASSIFIED ACCORDING TO HOURS WORKED AND HOURS WITHIN WHICH WORK WAS COMPLETED.

Actual hours worked.	Number of working days for which the interval in which these hours were completed was—											Total.
	2 and under 4	4 and under 6	6 and under 8	8 and under 10	10 and under 12	12 and under 14	14 and under 16	16 and under 18	18 and under 20	20 and under 22	22 and under 24	
2 and under 3.....	2											2
3 and under 4.....		2	1				1					4
4 and under 5.....		2	2	2						1		7
5 and under 6.....		1	4	2	3							10
6 and under 7.....			6	2	1	1						10
7 and under 8.....				1	3			1	2			7
8 and under 9.....					2	3	1	1	4			11
9 and under 10.....					4	7	2		3	2	1	19
10 and under 11.....					1	3	6	1	3	4	1	19
11 and under 12.....							3			3	3	9
12 and under 13.....							2		1	1	4	8
13 and under 14.....										2		2
14 and under 15.....									1	1		1
15 and under 16.....									1			1
Total.....	2	5	13	7	14	14	15	3	14	14	9	110

During 40 working days, representing a little over 36 per cent of the total number, the actual time worked by freight handlers was less than eight hours; during 30 days—27.3 per cent—the actual working hours were between 8 and 10; during 28 days, a little over 25 per cent of the total days, the actual time worked was between 10 and 12 hours; and during 12 days, representing nearly 11 per cent of the total number of days, the actual hours of work ranged from 12 to 16.

Though the number of actual working hours shown in this table may not be in excess of the hours of work in other industries, the time within which these hours were completed—that is, the interval between the time of beginning of the first period of work and the time of ending of the last period, in some cases is excessively long. During 27 days, 24.5 per cent of the total, the time necessary within which to complete the actual hours of work was less than 10 hours; during 43 days, 39.1 per cent of the total, the time within which work was completed ranged from 10 to 16 hours; and during 40 days, 36.4 per cent of the total, the actual hours of work required 16 to 24 hours in which to complete them. Long and irregular hours are, however, not the only characteristic feature of this kind

of employment; the conditions under which freight handlers live aboard the vessel must also be considered. Sleeping accommodations provided for freight handlers in many cases are poor and it is frequently asserted that the food served to them is of inferior quality. They are usually quartered in one large room in the forward hold of the boat, which is fitted out with bunks, the room frequently holding from 20 to 30 men. Mattresses and blankets only are supplied.

The method of serving food to the freight handlers varies and in some cases is very primitive. Some of the boats have so-called mess rooms furnished with wooden benches and bare wooden counters. In the case of a number of boats having no such mess rooms the food is brought out to the freight deck in large pans and the men scramble to fill their tin pans and cups, sitting around on the deck to eat.

It is frequently maintained, and not always by the owners of the vessels, that inasmuch as many of these men belong to a rather low type of workers, whatever living accommodations may be afforded them are quite sufficient for their needs, and that they would not appreciate and care to take advantage of improved conditions, even if they should be offered them.

It may be true that among these freight handlers are found the shiftless and the chronic casual workers, who in their decision to stay on a boat for any length of time may be little influenced by the kind of living conditions, but it seems to be a fact that wherever there has been an improvement in the living conditions, the men have been more likely to sail for longer continuous periods. This is shown in the following figures, in which the numbers of freight handlers working certain continuous periods on three different package-freight boats during the year 1917 are compared. Two of these boats ply between Chicago, Racine, and Milwaukee, the other plies between Chicago and points on the eastern shore of Lake Michigan.

NUMBER OF DAYS WORKED BY FREIGHT HANDLERS ON THREE PASSENGER-FREIGHT STEAMERS DURING THE YEAR 1917.

Number of days worked.	Freight handlers working specified number of days on—					
	Boat No. 1.		Boat No. 2.		Boat No. 3.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
$\frac{1}{2}$ day.....	286	11.6	22	1.9	37	3.0
1 day.....	459	18.6	33	2.8	53	4.7
1 $\frac{1}{2}$ days.....	454	18.4	91	7.7	69	5.6
2 days.....	536	21.6	82	7.0	119	9.7
2 $\frac{1}{2}$ days.....	85	3.4	60	5.1	75	6.1
3 days.....	122	4.9	66	5.6	80	6.5
3 $\frac{1}{2}$ to 6 $\frac{1}{2}$ days, inclusive.....	150	6.1	108	9.2	181	14.8
7 days.....	244	9.9	344	29.3	209	17.0
7 $\frac{1}{2}$ to 14 days, inclusive.....	130	5.3	286	24.3	322	26.3
14 $\frac{1}{2}$ days and over.....	6	.2	83	7.1	77	6.3
Total.....	2,472	100.0	1,175	100.0	1,227	100.0

It will be noticed that the greatest shifting is on boat No. 1. This is a wooden passenger-freight vessel of the older type, in which living accommodations for freight handlers are very poor. The average length of employment for freight handlers on this boat is a little more than two and one-half days. The shifting of freight handlers is less marked on boat No. 2, a steel vessel of modern construction, and on boat No. 3, an older vessel of steel construction, on both of which it is asserted that the living conditions are much better. The average length of employment on the latter two boats is about seven days.

On boat No. 1, 78.5 per cent of the freight handlers stayed for periods of three days or less, while on boats No. 2 and No. 3 the corresponding percentages were 30.1 and 35.6, respectively. Fewer freight handlers worked for periods between three and one-half to six and one-half days, which can easily be explained by the fact that when they have worked that long they are likely to stay a little longer and earn the higher wage rate which is offered to those who have worked continuously for seven days or more. Of the men working for periods of seven days or over the percentage is 15.4 for boat No. 1; more than three times that percentage, or 49.6, for boat No. 3, both making the same runs; and boat No. 2 has nearly four times the percentage, 60.7, of boat No. 1.

It should be noted that the number of men given in the preceding table does not represent the number of different individuals who sailed on a particular boat during 1917, but may include individuals who shipped more than once on the same vessel. Whenever a freight handler quits the service of the vessel he is paid off. The time, therefore, from when he started to work until he quit and was paid off is here considered as continuous service. It does not, of course, preclude the same man coming back the next day and shipping again, in which event a new service record would be started.

Not only do the many shiftings of this class of workers here indicated take place between the boats of the same company, but also, because of the proximity of the docks of other companies, there is a considerable shifting as between the different companies. Indeed, it has been frequently asserted that the freight handler works only long enough to earn sufficient money to go on a "spree," and that he comes back to work again when all his money has been spent. While this may be true in many cases, it can not be said to apply to the whole body of men, which often seems to be implied.

An analysis of the causes of the shifting of the freight handlers would make an interesting chapter in the discussion of these workers, but the multiplicity of motives which may animate them in their desire for change makes it clearly impossible to consider them in

detail in an article of this length. Among the more tangible factors, however, that affect the length of time freight handlers stay on any one boat may be mentioned the general conditions of work, such as long hours, the runs of the boat, the carrying of heavy or light freight, sleeping accommodations, the quantity and quality of the food, and the state of the labor market ashore.

The total employment afforded to freight handlers in any one year is dependent upon features of the shipping trade peculiar to the Great Lakes. Among the most important of these are industrial and seasonal changes. More men are carried during the period when the freight movement is heavy, or during the summer months when perishable commodities, which must be transported quickly to their destination, are shipped. Few boats run during the winter time, and these carry a smaller number of freight handlers.

Though opportunities for promotion are offered to freight handlers, it seems that they do not often take advantage of them. They seldom rise to positions in the deck department; more often they take the places of coal passers, or ship in various capacities in the steward's department.

In the struggle of the organized seamen during the last few years for improvements in their calling, the conditions under which freight handlers are working and living have also been the subject for frequent discussions. But though the efforts of the seamen culminated in the passing of the Seamen's Act, the freight handlers, by virtue of the nature of their work, have been held not to be seamen and therefore not to come within the purview of this law. The union occasionally has attempted to organize these workers, but has met with little success. The reason for this is ascribed to the unusually great shifting among this class of workers, and the "unorganizable" type which they represent. The men themselves have made no concerted attempt toward improvement of their working conditions, and as long as there is an abundant supply of this type of labor it is unlikely that many changes will be made by the vessel owners.

Not only the employers of the freight handlers, but employees in other departments of the vessel, seem to regard the conditions under which freight handlers work as normal and quite suited to the nature of the men. It has been asserted repeatedly that no matter what changes were brought about, whether affecting their working or living conditions, it would make little difference in the steadiness of employment of these men. It has been shown, however, that they are amenable in some measure to better living conditions, and it is altogether probable that if these conditions were improved the men would cease to be classed among the industrial outcasts.

COST OF LIVING IN THE DISTRICT OF COLUMBIA.

SEVENTH ARTICLE—WAGE-EARNING WOMEN: HOW THEY SPEND THEIR MONEY.

As brought out in preceding articles of this series, the study of working women in the District of Columbia shows that 274 of the 600 women interviewed, or 46 per cent, received under \$400 a year—approximately \$8 per week; and 381, or 64 per cent, received under \$500 per year, or approximately \$10 per week. Thirty-one per cent lived away from home, 45 per cent were in receipt of outside assistance, 72 per cent were 21 years of age and over, and 22 per cent had dependents.

Below are given brief biographies of a few of the women workers covered by the investigation. This selection is not intended to show either the worst or the best conditions, but simply to bring out, in a general way, how working women in Washington adjust their lives to their incomes. These sketches are reproduced in substantially the same rough form in which they were originally outlined by the women themselves. In reading them it is to be remembered that the interviews took place during the early part of the year 1917 and that such items as "last year," "summer vacation," etc., have reference to the year 1916.

LAUNDRY EMPLOYEES.

Mary A. is 24 years old and has worked nine years altogether, four years of this time in a laundry. She is a backer on the mangle, and is paid \$5.50 a week. She lives with her parents and takes her pay envelop home to her mother, who gives her what she needs to spend each week. This includes 25 cents a day for lunch, 50 cents a week for car fare, 10 cents a week for insurance, and 5 cents every other week for church. She had \$40 worth of clothes in 1916, including \$2 worth of gifts.

6 waists, at \$1.....	\$6.00
1 hat.....	4.00
6 pairs of shoes, at \$3.....	18.00
3 aprons, at 25 cents (gifts).....	.75
1 pair of gloves (gift).....	1.25
12 pairs of stockings, at 15 cents.....	1.80
2 corsets.....	2.00
Underwear and petticoats.....	4.00
Miscellaneous.....	2.20
Total.....	40.00

The number of pairs of shoes purchased is due to the cheap quality of shoes sold at this price and to the wet floors customary in this laundry.

Her mother does her washing and mending and Mary helps with the housework. She had no vacation last year, and only goes to the

movies occasionally, when a friend who makes more money than she does takes her.

Mrs. Clara B., who is 25 years old, has a little girl 8 years old. She is employed in a laundry and during 1916 received \$5 per week until May, \$5.50 from May to October, and in October was raised to \$6 a week. She also had \$67 alimony last year from her husband. Her mother, who lives on the other side of town, keeps her little girl without charge. Last year she bought her child \$15 worth of clothes and paid 10 cents a week on her insurance. She lives with a private family nearer her work, where she pays \$4 a week for board (including lunches) and lodging. She gets her board at this low figure because her friend is "good to her" and lets her have it for that amount. She helps her friend with the dishes every day and does cleaning Saturdays and Sundays. Her friend takes her to the movies occasionally. Her only expenses last year, in addition to board and lodging and expenditures for her little girl, were \$66 for clothes, \$7.80 for life insurance, \$36 for car fare, \$5 for gifts, and \$2 for miscellaneous expenses.

Josephine C. has worked 13 years, four years of this time as a mangle hand in a laundry at \$5 a week. She is 35 years old and has no family. Until June, in 1916, she paid \$2 a week for her room, but that outlay left her so little for food that she found another room, for \$1.50 a week.

This room was heated by an oil stove instead of hot water, as was the first, and she was allowed to use the kitchen to cook her food. Even with the closest economy her food cost nearly \$3 a week. Her clothing during 1916 cost her \$6.50, for which the following articles were obtained:

2 dresses.....	\$3.50
1 corset.....	.47
Miscellaneous.....	2.53
	<hr/>
	6.50
5 pairs of stockings (gifts).....	5.00
2 aprons (gifts).....	.50
	<hr/>
Total value of clothes.....	12.00

Her doctor bill of \$2.60 was paid by her sister. She spent 50 cents in car fare during her vacation of two weeks, which she took without pay.

Daisy D. started to work when she was 9 years old; she is now 34. She has been a shaker in a laundry for five years and gets \$5 a week. She is one of a large family, so she gives most of her earnings to her mother. Her insurance is 10 cents a week, church costs 5 cents a week, and last year she bought \$4 worth of clothes. She spends an hour a day doing dishes and cleaning for her mother, and

she does her own mending and washing and takes care of her own room. A friend takes her to the movies once in a while, and last year paid a doctor bill of \$2 for her.

Mrs. Mabel E. is 18 years old. Her husband belongs to the National Guard, and has never been heard from since he went to the border two years ago. She has a little girl 2 years old, and the two are living with Mabel's parents. She was out of work for 12 weeks in 1916, but is now a mangle hand at \$5 a week. Her earnings were spent as follows:

Money given to mother.....	\$88.00
Clothing (2 pairs of shoes worth \$4 were given her).....	45.00
Life insurance.....	10.40
Car fare.....	20.00
Amusements (girl friend takes her).	
To little girl.....	26.90
Church.....	2.60
Miscellaneous expenses.....	5.10
Total expenses.....	198.00
Still due on clothes.....	10.00
Total earnings.....	188.00

Her clothes included—

1 suit (she is still paying for this suit at the rate of \$1 a week).....	\$25.00
2 shirt waists, at 50 cents.....	1.00
1 hat.....	1.98
2 pairs of shoes (gifts).....	8.00
12 pairs of stockings, at 25 cents.....	3.00
Underwear.....	3.00
Miscellaneous.....	3.02
Total for clothes.....	45.00

Julia F. is the bookkeeper in a laundry and has been working for three years. She gets \$10 a week and two weeks' vacation with pay. She lives at home with her parents and gives her mother \$5 a week. When she is buying clothes, her mother lends her money, and she pays it back, \$2 a week at a time. She helps at home with the housework and shares her room with two younger children. Her expenses for 1916 were as follows:

Board and lodging paid mother (about \$5 a week).....	\$254.80
50 cents a week to supplement lunch taken from home.....	13.00
Fruit, candy, and sodas.....	13.00
Clothing.....	110.00
Life insurance, 10 cents a week.....	5.20
Car fare, 50 cents a week.....	25.00
Other car fare for going to night school.....	9.00
Books and newspaper (including books for night school).....	7.50
Amusements, about 75 cents a month.....	9.00
Vacation.....	15.00
Sickness and medicine.....	3.00

Dentist.....	\$3.00
Religious purposes (\$1 a month for church, 10 cents a week for Sunday school).....	17.20
Gifts.....	34.00
Other expenses.....	10.30
Total expenses.....	529.00
No surplus or deficit.	

Her clothes included—

1 suit.....	\$25.00
3 shirt waists (1 at \$2.50 and 2 at \$1; gifts, \$6.50).....	11.00
1 dress skirt.....	7.50
1 coat.....	25.00
3 hats (1 at \$4.50, 1 at \$2.98, and 1 at \$3).....	10.48
3 pairs of shoes (1 at \$6, 1 at \$2.50, and 1 at \$5).....	13.50
2 pairs of gloves (1 pair a gift).....	2.50
11 pairs of stockings.....	5.00
2 corsets, at \$1.....	2.00
Underwear (mother crochets tops and she makes up garments), material.....	3.98
Miscellaneous.....	4.04
Total for clothes.....	110.00

Julia, 20 years old, is a normal, healthy looking girl, and her expenditures as listed are about what a normal, healthy girl would spend. She has the ambition to make herself more efficient and by careful economy is able to buy books for night-school work. She spends a moderate amount for amusements, has a two weeks' vacation, and is able to have her teeth attended to. While she had no surplus at the end of the year, she carried a 10-cents-a-week life insurance policy, and with her night-school work on shorthand and typewriting she is making herself more efficient and capable of earning a better salary in the future.

STORE EMPLOYEES.

Mabel G. lived in an orphanage until she was 11 years old. She had to get a special permit to go to work and has been working in stores ever since—for 10 years. She was a stock girl at \$6 a week until April of 1916, when she got ptomaine poisoning in the employees' lunch room and had to go to a hospital for 13 weeks. The store paid her hospital bill, but did not pay her wages during that time, so she spent the rest of the year paying up her expenses. When she came out of the hospital she secured a position as sales girl in another store at \$6 a week. Until February, 1917, she lived with a married sister and paid her \$2.50 a week for board and lodging. In February, because of the death of the sister's husband, the two women broke up housekeeping and took two unfurnished rooms for \$7.50 a month, sharing expenses equally. Their food averages \$4 to \$5 a

week. They do all their own cooking, laundering, and mending, and make their own underwear. Mabel says they spend almost all of Sunday getting ready for the next week. In addition to board her expenses in 1916 were as follows:

Sick benefit insurance, at 5 cents a week (in the first store it was 8 cents a week).....	\$4.98
Clothing.....	48.00
Car fare (she walks to work).....	3.90
Gas stove.....	1.98
Sickness and medicine.....	1.50
Dentist (she paid this bill at the rate of \$1 a week).....	18.00
Church.....	.60
Gifts.....	3.00
Other expenses.....	3.45
Total (except board and lodging).....	85.41

There was no surplus.

Her expenditures for clothes were—

1 dress (material \$3.50, dressmaker \$6.25).....	\$9.75
3 shirt waists (1 at \$1.98, 2 at \$1).....	3.98
1 coat.....	8.90
2 hats (1 at \$2, and 1 at \$3.98).....	5.98
3 pairs of shoes (1 at \$5, 1 at \$2.35, 1 at \$2.50).....	9.85
1 apron.....	.55
1 pair of gloves.....	.98
5 pairs of stockings.....	1.45
1 corset.....	1.00
Underwear (material \$2).....	3.00
Miscellaneous.....	2.56
Total for clothes.....	48.00

In 1916 she worked at night for five weeks as cashier for a moving-picture house, but according to her account one of the store girls "peached" on her and a policeman informed her the next day she could have only one position at a time. She has a little brother living at the orphanage and as soon as she finishes paying the board money she owes for the time she was sick, she expects to start saving money to get him out. Mabel is the sort of a girl who, if given a chance and enough wages so that she could have a small surplus above the necessary living expenses, would have the ambition and health to study and equip herself for more efficient service. At present she feels fortunate if she is able to meet her pressing obligations and she uses up so much energy making this effort that it is not possible for her to do more.

Ruth H. is a ribbon clerk. She graduated from the eighth grade 19 years ago and has been working ever since as a sales girl. She is paid \$11 a week. She lives at home with her parents and pays \$5 a week for board and lodging, but as she is a member of a large

family, she helps with the housework one hour and a half in the morning and an hour at night, and spends most of Sunday doing additional cleaning and housework. Her expenditures for clothes in 1916 were as follows:

2 shirt waists.....	\$2.00
3 dress skirts.....	5.00
1 hat.....	2.00
1 pair of shoes.....	4.00
2 pairs of gloves.....	1.09
6 pairs of stockings.....	3.00
1 corset.....	1.39
Miscellaneous.....	3.00
Total for clothes.....	21.48

In 1916 she took a vacation of a week and two days without pay. This cost her \$10 in addition to the loss of her wages. She paid 10 cents a week on her life insurance and 10 cents a week for sick benefit and this is as near as she came to saving anything during that year. While her rate of pay might be a living wage for a younger woman, it is not large enough to enable her to lay by any amount for her old age.

Minnie I. is an attractive looking girl 19 years of age. She has been a sales girl for a year at \$6 a week. Her cousin, with whom she lives, works at the Bureau of Engraving and Printing and Minnie hopes to get an appointment there soon as a result of the civil-service examination taken by her. The two girls have a three-room flat, heated by a latrobe stove, Minnie paying for the food and her cousin paying for heat, rent, and light. The raw food costs the two close to \$4 a week and they do all their own cooking and housework. Minnie puts up her lunch at home. Her cousin takes her to the movies when she goes. Her expenditures last year were as follows:

Board and lodging (50 weeks).....	\$200.00
Clothing.....	67.15
(She does her own laundry.)	
Life insurance.....	5.20
Car fare.....	30.00
Vacation without pay (2 weeks).....	6.00
Oculist.....	9.00
Church, at 10 cents a month.....	1.20
Gifts.....	2.00
Other expenses.....	2.45
Total expenditures.....	323.00
Deficit.....	13.00
Total earnings (plus gift of a \$10 coat).....	310.00

Ida J. is 36 years old and has been working for seven years. She receives \$8 a week selling suits and in the busy season earns an aver-

age of about \$2 per week additional as commission. She lives in a furnished room for which she pays \$2.50 a week, and her meals average as follows: Breakfasts, 10 cents; lunches, 10 to 15 cents; dinners 25 cents. These are 1916 prices. She was sick for four weeks in 1916, and had to stay out of work for six weeks more to recuperate. Her expenses for the year were:

Furnished room.....	\$115.00
Meals.....	161.00
Clothing.....	55.00
Laundry.....	23.00
Life insurance.....	13.00
Books, papers, etc.....	1.00
Amusements.....	.40
Vacation.....	2.30
Sickness and medicine.....	32.50
Church.....	7.80
Gifts (sister).....	22.00
Miscellaneous (including visit to sister every third Sunday).....	30.00
Total expenses.....	463.00
Deficit (owed to sister).....	43.00
Total earnings.....	420.00

Her recreation consists of visits to her sister once a month.

This woman is a nervous invalid. It is not known how healthy she was when younger, but her years of insufficient food, lack of recreation and suitable doctor and dentist care, have had their effect and it won't be many years before she is unable to work at all. She attempted last year to secure free medical attention at one of the dispensaries, but since it was open only from 12 to 1 o'clock, and this was her lunch hour, she did not have enough time to wait her turn in the crowded room.

Eva K. is a little girl, 17 years old, who has been working a year. She was first a bundle wrapper at \$3 a week. In September, 1916, she was raised to \$3.50 and sold underwear, and in December she received \$4 as a sales girl in the basement. Until October she lived with her family and paid from \$1.50 to \$2 a week for board. In addition she did from three to four hours' work a day at home, helping to care for her small brothers and sisters, washing dishes, sweeping, and cooking. This overtaxed her strength, so her aunt took her in and since then things have been easier for her. Her total expenditures for 1916, in addition to board and lodging, were \$84. This included \$20 spent for clothes as follows:

3 shirt waists (2 at 59 cents and 1 at 98 cents).....	\$2.16
2 dress skirts (1 at 59 cents and 1 at \$1).....	1.59
1 hat.....	.98
3 pairs of shoes (1 at \$1.50, 1 at \$1.98, and 1 at \$2.35).....	5.83

1 pair of gloves.....	\$0.50
8 pairs of stockings.....	1.00
2 corsets.....	1.14
Underwear.....	2.90
Miscellaneous.....	3.90
Total for clothing.....	20.00

Mary L. is a saleswoman who earns \$12 a week. She is 32 years old and has been working for 12 years. She lives with her parents. She had additional income in 1916 of \$27.75, including \$22 worth of clothes. Her expenditures for the year were as follows:

Board, lodging, and laundry paid to parents.....	\$231.00
Lunches and meals out.....	39.20
Fruit, candy, sodas, etc.....	13.00
Clothing.....	194.55
(Laundry done with that of the family.)	
Life insurance.....	5.20
Car fare.....	29.70
Amusements (a friend provides most of them).....	2.60
2 weeks' vacation, 1 with pay, at small summer resort.....	20.00
Charity.....	1.50
Church.....	.50
Gifts, Christmas and other.....	25.00
Other expenditures.....	17.50
Total expenditures.....	579.75
Saved.....	50.00
Total earnings.....	629.75

Mary's expenditures for clothes are large. On the other hand, she had almost no expenditures for amusements.

TELEPHONE EMPLOYEES.

Eva M. is an "information" operator. She is 33 years old and has been working for 10 years. Her annual earnings for 1916 were \$603.69. She lives with her sister and pays for the laundry, food, and gas, while her sister pays for the rent and insurance. She spent \$97 for clothes in 1916, and her other expenses included items for car fare, books, papers, and magazines, vacation, doctor, church, and gifts. She came out even at the end of the year. In addition to doing cooking, marketing, and cleaning—spending about two hours on week days and six hours on Sunday—she does some of her own laundering and altering of clothes.

The stories of the other telephone girls are similar to the one above. Most of those interviewed lived at home and paid board and lodging to their families ranging from \$120 to \$442. Their expenditures for clothes ranged from \$45 to \$193, many of them buying clothes on credit.

EMPLOYEES OF THE BUREAU OF ENGRAVING AND PRINTING.

Annie N. is an operative at \$2.24 a day. She has been working 10 years and is 31 years old. She has an unfurnished room with a private family for which she pays \$15 a month, and her heat and light cost \$1 a month. Her expenses for the year 1916 were as follows:

Room, unfurnished.....	\$180.00
Heat and light.....	12.00
Lunches and meals.....	234.00
Clothing.....	148.00
Laundry.....	39.00
Labor organization.....	4.80
Car fare to and from work.....	23.50
Other car fare.....	14.50
Furniture.....	25.00
Books, papers, and magazines.....	2.60
Amusements.....	10.40
(She stayed home during vacation.)	
Dentist.....	25.00
Church.....	2.60
Gifts.....	25.00
Other expenses.....	4.60
Total expenditures.....	751.00
Owed for clothes.....	30.00
Total earnings.....	721.00

In common with many wage-earning women in the District, *Annie* buys her clothes on credit. *Annie's* budget for clothes in 1916 is as follows.

1 suit.....	\$25.00
1 dress.....	15.00
8 shirt waists.....	16.00
1 dress skirt.....	5.00
1 coat remodeled.....	30.00
3 hats.....	17.00
3 pairs of shoes.....	18.00
4 aprons.....	1.00
2 pairs of gloves.....	3.00
5 pairs of stockings.....	2.45
1 pair of corsets.....	2.00
Underwear and petticoats.....	10.00
Miscellaneous.....	3.55
Total for clothes.....	148.00

Helen O. lives at home with her parents and pays them \$25 a month for board, lodging, and laundry. She is a high-school graduate, has worked 11 years, and is 29 years old. She earns \$2.24 a day as an operative. Her expenses for the year 1916 tell the character of the girl better than anything else could.

Board, lodging, and laundry.....	\$287. 50
Lunches.....	24. 00
Clothing.....	79. 25
Life and benefit insurance.....	32. 40
Labor organizations.....	4. 80
Car fare to and from work.....	23. 50
Other car fare.....	11. 50
Shorthand and typewriting course by mail.....	88. 00
Books, papers, and magazines (including books for course).....	4. 10
Amusements (went to theater 4 times).....	4. 00
Vacation.....	30. 00
Dentist.....	2. 00
Charity (donations customary in the bureau for deaths, sickness, etc., among fellow employees).....	10. 00
Church.....	25. 00
Gifts.....	30. 00
Other expenses, including a trip to New York at the death of an uncle.....	69. 78
Total expenditures.....	725. 83

No surplus or deficit.

Jeannette P., 28 years old, lives at home with her parents, but it has fallen to her lot to support her grandmother, who lives with them. The family is large, and she is the only member unencumbered and without other financial obligations. She has been working 8½ years and earns \$2.24 a day as an examiner. In addition to \$502 paid for board and lodging for herself and grandmother she does all the marketing and some of the cooking for the family and she gave \$60 to her grandmother last year for clothes and other expenses. She was unable to go away for her vacation and spent very little on herself for amusements or clothes. She saved \$25 in the Christmas fund.

Mary Q. is an ambitious young woman, 28 years old. Her family is large and poor, and in 1916 she gave \$552 out of her total earnings of \$724.29 toward the general expenses. She is eager to study and took a general academic course in 1916 for four months, which cost her \$19.60, including books. In order to do this she cut her expenses down to the barest necessities. She stayed home for her vacation and got along with \$70 worth of clothes for the year. Few girls were found entirely foot-loose and free and Mary's situation is one of the many encountered during the investigation. Often the girls at home seemed to be carrying the heaviest load, for in addition to financial assistance given, they shared the misfortunes of sickness and unemployment of the group in which they lived and were required to put in many hours a day doing household work and answering the thousand and one calls upon their time and strength which members of a family feel free to make.

Mrs. Minnie R. is an example of an entirely different domestic situation from that of *Mary Q.* She is a widow with twin girls whom she keeps in a school near Washington. During 1916 she spent \$160.60 for their board, lodging, and clothes. She is 40 years old, has been working seven years, and makes \$2.24 a day as a trimmer. In 1916 she used the 30 days' vacation allowed by the Government, to have her tonsils removed. Her expenses for the year were as follows:

Unfurnished room, \$6 a month.....	\$72.00
Lunches and meals out, about 75 cents a day.....	243.20
Clothing.....	129.00
Laundry.....	24.00
Life and benefit insurance.....	2.60
Labor organizations.....	4.80
Car fare to and from work.....	23.50
Other car fare.....	13.00
Amusements.....	15.00
Sickness and medicine.....	15.00
Dentist.....	20.00
Oculist.....	8.00
For the children.....	160.60
Charity, donations.....	2.40
Church.....	2.60
Gifts.....	10.00
Other expenses.....	10.48
Total expenses.....	756.18
Owed for clothes.....	30.00
Total earnings.....	726.18

Rose S. is 33 years old, has been working thirteen and one-half years, and is paid \$2.24 a day as a worker in the trimming room. Until June, 1916, she lived with a cousin and gave her \$22.50 a month. The first of June she took a small apartment and rented one room to a girl friend. She has the girl's washing done with her own and furnishes her with ice and gas. Each buys her own food and prepares it. Rose makes practically all her own clothes, including her underwear, trims her own hats, and does her mending, in addition to cleaning her apartment and cooking her meals. At the time she was interviewed she was working overtime in the bureau and found it very difficult to accomplish all these things. She kept an accurate account of her expenditures for 1916, and the following are her expenses as given from her account book:

Rent for unfurnished apartment, 7 months.....	\$143.50
Fuel and light, 7 months.....	10.50
Board and lodging paid to cousin, 5 months, including laundry.....	112.50
Food bought, 7 months.....	90.90
Lunches.....	9.90

Clothing.....	\$87.00
Laundry for 7 months.....	31.00
Life and benefit insurance.....	3.00
Labor organizations.....	4.80
Other organizations.....	2.00
Car fare to and from work.....	23.50
Other car fare.....	5.20
Books, papers, and magazines.....	2.00
Amusements (friend furnishes these).	
Vacation.....	20.00
Sickness and medicine.....	42.00
Dentist.....	20.00
To sister's children.....	33.00
Charity, collections in the bureau.....	12.00
Religion.....	2.60
Gifts.....	20.00
Other expenses.....	64.02
Total expenses.....	739.42
Due on doctor bill.....	23.00
Total income (including \$7.25 worth of gifts).....	716.42

It is interesting to note the items spent for clothes by this girl, who exercised the closest economy, by buying carefully and making her own garments. The amounts spent are as follows:

Material for 2 dresses (1 at \$4 and 1 at \$6).....	\$10.00
Material for 8 shirt waists.....	7.00
Material for 2 dress skirts.....	1.60
1 sweater.....	5.00
3 hats (1 at 10 cents, 1 at 98 cents, and 1 at \$7).....	8.08
5 pairs of shoes (1 at \$8, 2 at \$3.50, and 1 at \$5).....	20.00
8 aprons, at 25 cents.....	2.00
4 pairs of gloves.....	4.25
15 pairs of stockings (\$5 worth of gifts).....	12.28
2 corsets.....	7.00
Underwear (including gift of material of \$2.25).....	5.25
Miscellaneous.....	4.54
Total for clothes.....	87.00

LABOR AND THE WAR.

MOBILIZING AND DISTRIBUTING FARM LABOR IN OHIO.

BY W. M. LEISERSON, TOLEDO UNIVERSITY, TOLEDO, OHIO.

The Ohio branch of the Council of National Defense is applying a new idea to the problem of meeting the shortage of farm labor. The idea is that plain business sense, business methods, a business organization, and hard facts as to supply and demand are as necessary in getting labor to the farms as they are essential to any business that supplies the farmer with machinery, tools, or anything else that he needs. The impression has seemed to be that the farmer can "pick up" all the labor he needs without any business organization to supply him, while distributing agents, warehouses, wholesalers, retailers, and mail-order houses are necessary to supply him with nails, plows, overalls, and all the other things. The farmer has for years been suffering from lack of labor, mainly because the business of supplying labor for the farms has never been organized in a systematic way. The present shortage of farm labor is not new. It is but the ordinary condition, accentuated by the military draft and the fact that high wages in munition factories have drawn largely on the rural populations. And now, as in years past, when farm labor can not be "picked up," it is not to be expected that widespread publicity and indiscriminate calls for thousands of hands will somehow bring the laborers to the farms.

Several years of experience in conducting the Ohio free employment bureaus convinced Mr. Fred C. Croxton, chairman of the labor committee of the Ohio Council of Defense, and Mr. C. H. Mayhugh, State director of employment, that labor can not be supplied in this way. When the United States entered the War, therefore, they set about establishing a complete system of labor exchanges for the State of Ohio, as described in the MONTHLY REVIEW for June, 1917.

At the outbreak of the War, in April, 1917, the Industrial Commission of Ohio was conducting seven State-city labor exchanges. The management of these was transferred to the Ohio branch of the Council of National Defense, and 15 additional bureaus have been established by the council in cooperation with local communities that pay part of the expense. Each office serves a district consisting of several counties and the whole system is controlled and directed by a central clearing house located at the statehouse in Columbus.

Instead of making appeals for farm hands in the newspapers, a business organization was established. Only by establishing labor exchanges for farmers and workers, conducted by efficient employment agents, can anything practical and permanent be accomplished toward supplying the farmers' needs for labor. By May 1, 1917, the whole system of employment exchanges was in fair working order, and the first season more than 7,000 farm hands were sent to farmers in Ohio. The employment bureaus received reports that 5,000 of these 7,000 were at work on the farms to which they were sent, although the actual number working was probably greater than that.

The directors of Ohio's employment system were gratified with this record, but realized that no effective organization for supplying farm labor could be built in a few months and that temporary campaigns launched when the need for labor was greatest could not insure a steady flow of labor to meet the changing needs of the farms of the State. During the year, therefore, they devoted themselves to increasing the efficiency of the 22 employment bureaus, developing better business methods, training their employees to be better employment agents, bringing the agents into closer contact with the central office, and devising the best methods of transferring labor from one part of the State to another through the central office.

The results of this work may be seen in the increased business done by the Ohio employment bureaus in supplying labor for all industries of the State. In the 10 months ending February 28 they registered 463,400 workers, men and women. In other words, they were able to mobilize a supply of labor for the State amounting to over 30,000 workers¹ per month. For this labor they had available, on the average, 30,000 jobs every month, and each month they actually placed in positions close to 23,000 wage earners. The exact total of placements for the 10 months was 229,221.

During the 10 months, also, the superintendents and employees of the 22 employment bureaus familiarized themselves with the labor needs of their districts as well as with the available labor supply. Before the present spring demand for farm labor was actually felt the directors of Ohio's employment system not only had a centralized business organization for marketing labor efficiently, but knew just what was needed to get the demand for farm labor accurately registered and had developed the best methods of meeting that demand.

In February the machinery of the Ohio Employment Service was started working for the farmers of Ohio. First came an order from the central office that no "drive" for farm labor should be made until the actual and bona fide demand for farm workers had

¹ The figures for the 10-month period contain a good many duplications caused by the same individual applying for employment on more than one day during the month. It is safe to say that the number of different individuals who applied for work averaged between 30,000 and 35,000.

been accurately ascertained. In July and August the farmers of Ohio need very many extra hands; in March they need but few. One of the first principles of efficient employment management is not to advertise for help long in advance of actual needs. It disorganizes the labor market.

The superintendent of each of the 22 employment offices was instructed, therefore, to canvass his district to ascertain the demand for farm labor for the first month of the season only. Following are parts of the instructions sent to each local office from the central office:

During the remainder of the month of February and up to March 6 every superintendent will either personally, or through an assistant especially qualified to handle farm labor, make a tour of his entire district to ascertain the demand for farm workers up to and including April 6. Take no orders for help needed after April 6.

The method of canvassing farm labor demands in the district will be to arrange meetings in schoolhouses, village halls, churches, or any other convenient meeting places where the superintendent or his assistant can make addresses, telling what the bureaus can do for the farmers, how the offices work, what is expected of the farmers, etc. The special blanks (Form 28) for farm help should be passed around among the farmers present and at the end of the meeting the speakers should collect the orders and make sure that they are properly filled out.

In this work of arranging and addressing farm meetings, the granges, equity societies, and other agricultural organizations should be utilized, and the assistance of county agricultural agents, county and township food commissioners should be enlisted. But whenever anyone except the superintendent or an employee of the employment offices solicits orders for farm help, the superintendent must see to it that he understands thoroughly the use of our blanks and the methods of the offices in filling orders.

Only responsible persons shall take orders for farm help. This is emphasized because the employment bureaus regard their calls for help as in the nature of contracts. The farmer must state definitely the kind of work he has, the number of men wanted, the probable duration of the employment, the wages paid, and any other material facts relating to the wage bargain. He is held responsible for hiring the farm hand if one that meets the conditions of his order is referred to him by the employment office. No business man would think of shipping his goods except with an understanding of this kind, and no statements of demand for farm labor are worth the paper they are written on unless they are based on such orders as the Ohio employment bureaus insist on.

The instructions to superintendents regarding the handling of farm labor require further that some machinery shall be established in every rural community for connecting its farm-labor demands promptly and efficiently with the employment office of the district and through that with the organized labor market of the whole State.

The method of establishing local representatives of the employment bureaus in rural communities will be to get the town clerk, secretary or president of the grange, bank cashier, or any other interested citizen to act as agent for the employment office in his community. The work of the offices and filling of blank forms should be carefully explained to the agent and a supply of the new form No. 28 should be left with him. At the public meetings as well as in the country newspapers, publicity should be given to the fact that the employment bureau has this local agent and that orders may be left with him, and he will see that they receive proper attention.

It should be remembered that the local agents are not to conduct employment offices. They are to send in orders to the employment bureau, and farm hands are to be sent to this agent when it is not possible to refer them directly to the farmers. Also when it is impossible to get farmers on telephone during the day, local agents can be called to take care of men whom the employment office is prepared to send to work. * * * The agent is to see that the man reaches the farmer who ordered him, and that a proper report is returned to the employment bureau.

Following these instructions, each of the superintendents of the 22 employment bureaus toured his district for about two weeks, addressing farmers' meetings, taking orders for farm help, and arranging for local representatives. At the end of that time 476 local agents had been appointed and instructed how to receive orders for farm help, transmit them to the employment bureau, and see to it that the farmer received the help he ordered. In addition to this employment organization the Agricultural and Food Division of the Ohio Council of Defense was directed to assist in dealing with the farm-labor problem. Under this division there are paid county agricultural agents in 37 counties. These are scientifically trained men whose business it is to advise farmers on technical matters, like selection of seed, preparation of soil, drainage, and elimination of pests. Associated with them is an unpaid food commissioner in each county and under him are township food commissioners, one for each township. All of these are connected closely with the employment organization through a chief farm agent who is located at the central office and works directly with the State director of employment. The assistant professor of rural economics at the Ohio State Agricultural College has been detailed to give all his time to this important work.

Through these various agencies the employment system is made to reach into every rural community of the State. The employment service conducts a continuous canvass of the actual farm-labor needs of the State as represented by direct orders from farmers, and at the same time is trying to meet those needs every day by supplying men from the employment offices.

Every month the demand for farm workers and the number supplied are balanced, and a special report of the unfilled orders is sent to the central office by each district superintendent. Following is a copy of the blank form for these reports:

REPORT OF FARM CANVASS.

Summary of unfilled active farm orders to April 6.

[Do not report dead orders.]

1. Number of married men called for at each classified wage:

\$18-\$20	\$20-\$25	\$25-\$30	\$30-\$35	\$35-\$40	\$40 and up.

2. Number of single men called for at each classified wage:

\$18-\$20	\$20-\$25	\$25-\$30	\$30-\$35	\$35-\$40	\$40 and up.

3. Number of older boys called for at each classified wage:

Under \$15	\$15-\$18	\$18-\$20	\$20-\$25	\$25-\$30	\$30 and up.

4. Number of female workers called for

5. Number of day workers called for at each classified wage:

Under \$1 w. board.	\$1-\$2 w. board.	\$2 and up w. board.	\$2-\$3 no board.	\$3 and up no board.	Piece-work.

AGENCIES ESTABLISHED.

Name of agent.	Address and phone.	Arrangements.

The first monthly report showed that on March 6, 1918, the employment offices had unfilled orders on their books for 660 experienced farm hands. This small number may surprise people who hear stories of tens of thousands needed in each State. Of course 660 does not represent the total demand for farm labor in Ohio, but it represents a very substantial portion of the men needed during March. It is the demand that remained unsupplied after the offices had sent more than 500 men to the farms in February. Only an accurate statement of this kind, balancing supply and demand each month, can be of any practical value in dealing with the farm-labor shortage in a practical way. The ordinary estimates that gain wide publicity group the whole season's needs together

and leave out of account the men who are going to work on farms from day to day. As the season goes on the demand for farm labor will increase from month to month. But the supply of this labor also increases with the greater demand. During the first half of March incomplete returns from Ohio's employment offices showed 412 men placed on farms out of 690 referred to farmers, as compared with 291 placed and 575 referred for the whole month of February. When the heaviest demands come in harvest time there may be plenty of labor available. It can not be said four months in advance that this harvest labor is lacking. We can speak accurately of supply and demand only from month to month.

These monthly reports, together with the superintendents' canvasses, the farmers' meetings, and local agencies, are all in preparation for a businesslike advertising campaign. "The central office," says a circular from the State director of employment, "will conduct a campaign of publicity, which must be supplemented by local publicity in each district, to be handled by the superintendent. All publicity will be designed to accomplish one end, namely, to get farmers to register their actual needs for help at their local employment office and to supply these needs through the employment offices."

Here may be noted two highly important features of Ohio's method of handling the farm-labor problem. In the first place, no campaign of publicity was undertaken until a careful canvass had been made of the actual demand for farm help based on orders from the farmers themselves. In the second place, instead of publishing statements in the newspapers about hundreds of men needed in certain counties and inducing farm hands to go to those places on this vague information, to find perhaps that too many had already applied or that terms of employment were not satisfactory, the Ohio plan is to make each man apply at the nearest office and assure him of a job at wages that he will accept before he is asked to go to a distant place.

The usual unintelligent methods of dealing with the problem are well illustrated by a canvass conducted by an Ohio newspaper early in February. "Shortage of labor perils Ohio crops" ran the headline. "Canvass of 250 communities * * * shows State and Nation face crisis." The story went on to say:

Questionnaires, which have been answered by county agents, agricultural associations, farm employment agencies, and other authoritative spokesmen, have covered every phase of the problem and have met with a frank and comprehensive response by men and organizations capable of correctly sizing up the situation.

A digest of these answers shows that Ohio needs at least 30,000 additional farm hands to maintain last year's standard of production.

Reports from every county in the State indicate farmers are willing to pay higher wages and offer greater privileges to farm hands than ever before. Farmers in all counties also are willing to employ men for longer periods than formerly.

The next day this was supplemented by the following statement:

The original estimate placing at 30,000 the number of farm workers needed this summer to maintain last year's agricultural, dairy, fruit, and truck farm production is altogether too low. The actual requirements are nearer 50,000 men.

Chambers of commerce, civic associations, educational authorities, Y. M. C. A.'s, Boy Scouts, and women's clubs are urged to join hands to enlist both permanent and temporary help and to establish farm-labor bureaus, which will act as clearing houses capable of meeting any demand which farmers may make on them.

It is just this sort of loose statement regarding labor demand and supply, and the well-meaning but inexperienced efforts of civic associations suggested by the newspaper, that Ohio's employment system is designed to overcome. When calls for 30,000 and 50,000 farm hands are scattered through the country without a centralized organization to control the supply of labor that responds to the advertising, the result often is to oversupply certain counties while causing a greater scarcity in other districts, and the waste and confusion in our labor markets are thereby increased.

Contrast this with the methods of the Ohio system of employment bureaus. The central office directs its State-wide publicity to the definite purpose of filling the demand for farm help registered at the employment offices. It instructs each district superintendent to insert in his local newspapers this advertisement:

THINK IT OVER
Figure It Out
 What wages will you have to
 make in the city to have \$20 or
 \$25 clear at the end of the month?
 You can do it in the country.
TAKE A JOB ON THE FARM
 Apply at
 STATE-CITY EMPLOYMENT BUREAU
 128 Huron St., Toledo.

The applicant is directed to the employment bureau where he can be told definitely about the kind of work available, the wages and other conditions concerning which he wants information, and where he can be examined as to his fitness for farm work. Thus men are assured of positions before they go to the country, none are induced to leave their city positions on mere rumors of high wages on the farms, and the available supply of farm labor is controlled and directed so as to prevent the oversupplying of some counties while others are short of labor.

Mere patriotic appeals will not induce men to accept lower wages in the country and leave better-paying jobs in the city, especially when they know that the profit goes to the farmer and not to the Government. But for most of the unskilled workers in the city farm labor can be shown to have distinct material advantages. The Ohio

Employment Service, therefore, advertises these advantages in circulars like the following, sent to all the newspapers of the State:

FARM JOB VERSUS CITY JOB.

FOR A MARRIED MAN.

A farm job at \$30 per month equals a city job at \$105.

A farm job at \$35 per month equals a city job at \$110.

A farm job at \$40 per month equals a city job at \$115.

A farm job at \$45 per month equals a city job at \$120.

Not considering the possibility of raising some stock or produce on shares, which is usual.

FOR A SINGLE MAN.

A farm job at \$25 per month equals a city job at \$80.

A farm job at \$30 per month equals a city job at \$85.

A farm job at \$35 per month equals a city job at \$90.

A farm job at \$40 per month equals a city job at \$95.

Not considering possible share in profits or privileges such as use of horses.

These figures are based on the following comparison of monthly cost of living on the farm and in the city.

MARRIED MAN ON FARM AND IN CITY.

	Farm job.	City job.
Total cash income.....	\$40	\$100
House rent.....	Furnished.	\$20
Groceries.....	Exchange of produce.	33
Milk.....	Furnished.	4
Fuel.....	\$3	5
Light.....	1	2
Insurance and taxes.....	3	3
Clothes and incidentals including car fare, lunches amusements, church, etc.	13	28
Total expenses.....	— 20	— 95
Balance saving.....	20	5

SINGLE MAN ON FARM AND IN CITY.

	\$35	\$90
Total cash income.....	Furnished.	\$37
Board and room and laundry.....	\$3	3
Insurance.....	6	9
Clothes.....	5	20
Car fare, lunches, amusements, church, lodge, athletics, charities, etc..	— 14	— 69
Total expense.....	21	21
Balance saving.....		

When the men attracted to the employment offices by the methods and the publicity just described are given detailed information regarding specific farm jobs, it is surprising to see how many can be found to fill the places on farms. Many farmers offer comparatively high wages—\$40, \$45, and more per month—with board, lodging, laundry, and other privileges. Places like these are filled with little difficulty. Other positions at from \$30 to \$40 per month are attrac-

tive to many low-paid, irregularly employed workers in the cities. The greatest difficulty is in filling the places that pay \$30, \$25, and less per month. Twenty-five and thirty dollars per month were the wages commonly paid before the War, and much of the scarcity of farm labor is due to the fact that wages offered by farmers have not kept pace with the rise in wages generally. Another part of the publicity work of the employment system is, therefore, to distribute accurate information regarding prevailing market rates of wages. Farmers are told both through the newspapers and directly through the employment offices that the prevailing wages are \$35 to \$45 per month and that they will have less trouble getting the help they need if they pay the market rates.

The most difficult of all the problems of meeting the demand for farm labor lies in the fact that the source of the supply of labor is far removed from the places of employment. It is difficult enough to try to transfer labor in an orderly way from one city to another, but to send men from the city to the country raises almost insurmountable obstacles. The central office of the Ohio Employment Service has devised means for handling both of these problems.

The superintendent of each employment bureau sends to the central office a list of the positions that he can not fill from his own applicants and a list of the applicants for whom he can not find positions in his own district. The applicants and the positions are both carefully described in detail. This is done both for farm hands and all other classes of workers. The central office lists these on a special form and gives each item a serial number indicating the branch office to facilitate reference to the positions or applicants in telegrams or over long-distance telephones, which are constantly used in transferring labor. Following are sample copies of these lists:

POSITIONS REPORTED TO CENTRAL OFFICE.

Date.....

Serial No.	Description.	Supt.
J 320 CH	One farm hand; married man with small family; colored preferred; \$1.50 per day of 10 hours; the prevailing rate will be paid during harvest, corn cutting, and corn husking.....	
J 321 CH	One experienced farm hand; single; \$1.25 per day with room, board, and laundry; this is on a large, up-to-date farm and they want a man for general farm work; a good place for a good man.....	
J 322 CH	One experienced farm hand; single; general farm work; \$35 per month with room, board, and laundry.....	
J 323 CH	One experienced farm hand; single; 17 to 20 years old preferred; must be accustomed to the care and handling of horses; \$1 per day with board, room, and laundry.....	
J 324 CH	Three farm hands; married; \$1.50 per day with the usual considerations, such as house, garden, milk, and meat allowances; general farming.....	

APPLICANTS AVAILABLE FOR TRANSFER.

Date.....

Serial No.	Description.	Supt.
A 161 AT	Commercial salesman. Married, 45 years of age. Minimum salary demanded, \$100 and expenses. Has had a varied experience in his line and has been manager of a general merchandise store.....	
A 162 E	Farmer. Widowed, 41 years of age. Lifetime experience, sober and industrious. Willing to rent a farm of 100 to 300 acres on the halves. Prefers to locate in Marion or Seneca Counties..... Farmer, with 3 sons able to work; all 4 can milk. This family would like to secure work in a large dairy or dairy and fruit farm; have had considerable experience in such work. Will work by the year or rent a farm on the shares, or will pay cash rent if stock and tools are furnished. Have lived in the city two years but are anxious to get onto a farm again. No stipulation in regard to minimum wage.....	
A 164 AT	Licensed fireman. Married, 28 years of age, white. Minimum wage demanded, \$100 per month. Can give good references.....	
A 165 CN	Accountant—General office man. Married, 56 years of age. Minimum wage demanded, \$30 per week.....	

These lists are sent daily to each of the 22 employment offices and a revised list is made once a week. The last column provides a place for the superintendent to keep his records. More than 18,000 wage earners have been transferred from one part of the State to another by means of this method in the eight months that it has been in use.

Sometimes the applicant pays his own fare. Often the employer pays the fare outright. More often the fare is advanced by the employer and later deducted from the wages. This is most common in the cases of farm hands. But all of these methods require tact and skill in handling and both employer and worker must have a great amount of confidence in the efficiency and integrity of the employment system before it can succeed in sending large numbers of workers to distant places of employment.

To the newspapers and many well-meaning but uninformed enthusiasts mobilization of labor for farm production requires merely an office for correspondence and registration to bring farmers and farm hands together, or else it means recruiting an "agricultural army" that presumably will march through the country doing a little planting here, harvesting there, or "fixing up the farms." To the experienced employment agent supplying farm hands is a serious business that requires skill and infinite pains and care. It means a long and tedious process of trying to fit men of unknown ability and reputation into a line of work that requires every variety of skill, and at the same time the man must be such as to fit properly into the farmer's family. The farm hand must not only know how to do his work; he must also become a member of the farmer's household, eat at his table, and sleep in his house.

For work of this kind, careful and efficient organization is needed—an organization that covers every county and every rural district. Such an organization can not be built in a day or by the efforts of volunteers and civic associations. Realizing this the Ohio Branch of the Council of National Defense called to its assistance at the very beginning all the men it could find in Ohio who had experience, skill, and knowledge of employment problems and the employment business. These men were set to work organizing and supervising the work of the employment offices, training the employees of the offices to become expert employment agents, developing efficiency in office management, in the details of properly judging and recording men's qualifications—creating, in short, a complete labor market organization for the State, unified and controlled through the central office and State director of employment in Columbus. The very first year, this policy of building for permanence showed remarkable results in the placement of farm hands, in the systematic mobilization of almost 20,000 men for building the cantonment at Chillicothe, and in the business of supplying labor for Ohio industries generally. As the War goes on the organization shows itself better and better able to deal with the labor-market problems that develop. And when the War is over and millions of workers have to be returned to normal activities from the Army and from war industries, the Ohio Employment Service will be ready to handle in its State this most difficult of all the problems.

SOCIAL RECONSTRUCTION PROGRAM OF THE BRITISH LABOR PARTY.

The following draft report on the general policy of the British Labor Party on "Reconstruction" has been prepared by a subcommittee of the executive for the consideration of the party; and is submitted by the executive to the annual conference at Nottingham, not for adoption, but with a view to its being specifically referred to the constituent organizations for discussion and eventual submission to the party conference to be arranged for June next, or a special conference should a general election render it necessary. [Jan. 1, 1918.]

LABOR AND THE NEW SOCIAL ORDER—A DRAFT REPORT ON RECONSTRUCTION.

It behooves the Labor Party, in formulating its own program for reconstruction after the war, and in criticizing the various preparations and plans that are being made by the present Government, to look at the problem as a whole. We have to make clear what

it is that we wish to construct. It is important to emphasize the fact that, whatever may be the case with regard to other political parties, our detailed practical proposals proceed from definitely held principles.

THE END OF A CIVILIZATION.

We need to beware of patchwork. The view of the Labor Party is that what has to be reconstructed after the war is not this or that Government department, or this or that piece of social machinery; but, so far as Britain is concerned, society itself. The individual worker, or for that matter the individual statesman, immersed in daily routine—like the individual soldier in a battle—easily fails to understand the magnitude and far-reaching importance of what is taking place around him. How does it fit together as a whole? How does it look from a distance? Count Okuma, one of the oldest, most experienced, and ablest of the statesmen of Japan, watching the present conflict from the other side of the globe, declares it to be nothing less than the death of European civilization. Just as in the past the civilization of Babylon, Egypt, Greece, Carthage, and the great Roman empire have been successively destroyed, so, in the judgment of this detached observer, the civilization of all Europe is even now receiving its death blow. We of the Labor Party can so far agree in this estimate as to recognize, in the present world catastrophe, if not the death, in Europe, of civilization itself, at any rate the culmination and collapse of a distinctive industrial civilization, which the workers will not seek to reconstruct. At such times of crisis it is easier to slip into ruin than to progress into higher forms of organization. That is the problem as it presents itself to the Labor Party to-day.

What this war is consuming is not merely the security, the homes, the livelihood, and the lives of millions of innocent families, and an enormous proportion of all the accumulated wealth of the world, but also the very basis of the peculiar social order in which it has arisen. The individualist system of capitalist production, based on the private ownership and competitive administration of land and capital, with its reckless "profiteering" and wage slavery; with its glorification of the unhampered struggle for the means of life and its hypocritical pretense of the "survival of the fittest"; with the monstrous inequality of circumstances which it produces and the degradation and brutalization, both moral and spiritual, resulting therefrom, may, we hope, indeed have received a death blow. With it must go the political system and ideas in which it naturally found expression. We of the Labor Party, whether in opposition or in due time called upon to form an administration, will certainly lend no hand to its revival. On the contrary, we shall do our utmost

to see that it is buried with the millions whom it has done to death. If we in Britain are to escape from the decay of civilization itself, which the Japanese statesman foresees, we must insure that what is presently to be built up is a new social order, based not on fighting, but on fraternity—not on the competitive struggle for the means of bare life, but on a deliberately planned cooperation in production and distribution for the benefit of all who participate by hand or by brain—not on the utmost possible inequality of riches, but on a systematic approach toward a healthy equality of material circumstances for every person born into the world—not on an enforced dominion over subject nations, subject races, subject colonies, subject classes, or a subject sex, but, in industry as well as in Government, on that equal freedom, that general consciousness of consent, and that widest possible participation in power, both economic and political, which is characteristic of democracy. We do not, of course, pretend that it is possible, even after the drastic clearing away that is now going on, to build society anew in a year or two of feverish “reconstruction.” What the Labor Party intends to satisfy itself about is that each brick that it helps to lay shall go to erect the structure that it intends, and no other.

THE PILLARS OF THE HOUSE.

We need not here recapitulate, one by one, the different items in the Labor Party's program, which successive party conferences have adopted. These proposals, some of them in various publications worked out in practical detail, are often carelessly derided as impracticable, even by the politicians who steal them piecemeal from us! The members of the Labor Party, themselves actually working by hand or by brain, in close contact with the facts, have perhaps at all times a more accurate appreciation of what is practicable, in industry as in politics, than those who depend solely on academic instruction or are biased by great possessions. But to-day no man dares to say that anything is impracticable. The war, which has scared the old political parties right out of their dogmas, has taught every statesman and every Government official, to his enduring surprise, how very much more can be done along the lines that we have laid down than he had ever before thought possible. What we now promulgate as our policy, whether for opposition or for office, is not merely this or that specific reform, but a deliberately thought out, systematic, and comprehensive plan for that immediate social rebuilding which any ministry, whether or not it desires to grapple with the problem, will be driven to undertake. The four pillars of the house that we propose to erect, resting upon the

common foundation of the democratic control of society in all its activities, may be termed, respectively:

- (a) The universal enforcement of the national minimum;
- (b) The democratic control of industry;
- (c) The revolution in national finance; and
- (d) The surplus wealth for the common good.

The various detailed proposals of the Labor Party, herein briefly summarized, rest on these four pillars, and can best be appreciated in connection with them.

THE UNIVERSAL ENFORCEMENT OF A NATIONAL MINIMUM.

The first principle of the Labor Party—in significant contrast with those of the capitalist system, whether expressed by the Liberal or by the Conservative Party—is the securing to every member of the community, in good times and bad alike (and not only to the strong and able, the well born or the fortunate), of all the requisites of healthy life and worthy citizenship. This is in no sense a “class” proposal. Such an amount of social protection of the individual, however poor and lowly, from birth to death, is, as the economist now knows, as indispensable to fruitful cooperation as it is to successful combination; and it affords the only complete safeguard against that insidious degradation of the standard of life, which is the worst economic and social calamity to which any community can be subjected. We are members one of another. No man liveth to himself alone. If any, even the humblest, is made to suffer, the whole community and every one of us, whether or not we recognize the fact, is thereby injured. Generation after generation this has been the corner-stone of the faith of labor. It will be the guiding principle of any labor government.

THE LEGISLATIVE REGULATION OF EMPLOYMENT.

Thus it is that the Labor Party to-day stands for the universal application of the policy of the national minimum, to which (as embodied in the successive elaborations of the factory, mines, railways, shops, merchant shipping, and truck acts, the public health, housing, and education acts and the minimum wage act—all of them aiming at the enforcement of at least the prescribed minimum of leisure, health, education, and subsistence) the spokesmen of labor have already gained the support of the enlightened statesmen and economists of the world. All these laws purporting to protect against extreme degradation of the standard of life need considerable improvement and extension, whilst their administration leaves much to be desired. For instance, the workmen’s compensation act fails, shamefully, not merely to secure proper provision for all the victims of accident and industrial disease, but what is much more important,

does not succeed in preventing their continual increase. The amendment and consolidation of the factories and workshops acts, with their extension to all employed persons, is long overdue, and it will be the policy of labor greatly to strengthen the staff of inspectors especially by the addition of more men and women of actual experience of the workshop and the mine. The coal mines (minimum wage) act must certainly be maintained in force, and suitably amended, so as both to insure greater uniformity of conditions among the several districts and to make the district minimum in all cases an effective reality. The same policy will, in the interests of the agricultural laborers, dictate the perpetuation of the legal wage clauses of the new corn law just passed for a term of five years, and the prompt amendment of any defects that may be revealed in their working. And, in view of the fact that many millions of wage-earners, notably women and the less skilled workmen in various occupations, are unable by combination to obtain wages adequate for decent maintenance in health, the Labor Party intends to see to it that the trade boards act is suitably amended and made to apply to all industrial employments in which any considerable number of those employed obtain less than 30 shillings per week. This minimum of not less than 30 shillings per week (which will need revision according to the level of prices) ought to be the very lowest statutory base line for the least skilled adult workers, men or women, in any occupation, in all parts of the United Kingdom.

THE ORGANIZATION OF DEMOBILIZATION.

But the coming industrial dislocation, which will inevitably follow the discharge from war service of half of all the working population, imposes new obligations upon the community. The demobilization and discharge of the 8,000,000 wage-earners now being paid from the public funds, either for service with the colors or in munition work and other war trades, will bring to the whole wage-earning class grave peril of unemployment, reduction of wages, and a lasting degradation of the standard of life, which can be prevented only by deliberate national organization. The Labor Party has repeatedly called upon the present Government to formulate its plan, and to make in advance all arrangements necessary for coping with so unparalleled a dislocation. The policy to which the Labor Party commits itself is unhesitating and uncompromising. It is plain that regard should be had, in stopping Government orders, reducing the staff of the national factories and demobilizing the army, to the actual state of employment in particular industries and in different districts, so as both to release first the kinds of labor most urgently required for the revival of peace production and to prevent any congestion of the market. It is no less imperative that suitable

provision against being turned suddenly adrift without resources should be made, not only for the soldiers, but also for the 3,000,000 operatives in munition work and other war trades, who will be discharged long before most of the army can be disbanded. On this important point, which is the most urgent of all, the present Government has, we believe, down to the present hour, formulated no plan, and come to no decision, and neither the Liberal nor the Conservative Party has apparently deemed the matter worthy of agitation. Any Government which should allow the discharged soldier or munition worker to fall into the clutches of charity or the poor law would have to be instantly driven from office by an outburst of popular indignation. What every one of them who is not wholly disabled will look for is a situation in accordance with his capacity.

SECURING EMPLOYMENT FOR ALL.

The Labor Party insists—as no other political party has thought fit to do—that the obligation to find suitable employment in productive work for all these men and women rests upon the Government for the time being. The work of resettling the disbanded soldiers and discharged munition workers into new situations is a national obligation, and the Labor Party emphatically protests against it being regarded as a matter for private charity. It strongly objects to this public duty being handed over either to committees of philanthropists or benevolent societies, or to any of the military or recruiting authorities. The policy of the Labor Party in this matter is to make the utmost use of the trade-unions, and, equally for the brainworkers, of the various professional associations. In view of the fact that, in any trade, the best organization for placing men in situations is a national trade-union having local branches throughout the kingdom, every soldier should be allowed, if he chooses, to have a duplicate of his industrial discharge notice sent, one month before the date fixed for his discharge, to the secretary of the trade-union to which he belongs or wishes to belong. Apart from this use of the trade-union (and a corresponding use of the professional association) the Government must, of course, avail itself of some such public machinery as that of the employment exchanges; but before the existing exchanges (which will need to be greatly extended) can receive the cooperation and support of the organized labor movement, without which their operations can never be fully successful, it is imperative that they should be drastically reformed, on the lines laid down in the demobilization report of the “labor after the war” joint committee; and, in particular, that each exchange should be placed effectually under the supervision and control of a joint committee of employers and trade-unionists in equal numbers.

The responsibility of the Government, for the time being, in the grave industrial crisis that demobilization will produce, goes, however, far beyond the 8,000,000 men and women whom the various departments will suddenly discharge from their own service. The effect of this peremptory discharge on all the other workers has also to be taken into account. To the Labor Party it will seem the supreme concern of the Government of the day to see to it that there shall be, as a result of the gigantic "general post" which it will itself have deliberately set going, nowhere any degradation of the standard of life. The Government has pledged itself to restore the trade-union conditions and "prewar practices" of the workshop, which the trade-unions patriotically gave up at the direct request of the Government itself; and this solemn pledge must be fulfilled, of course, in the spirit as well as in the letter. The Labor Party, moreover, holds it to be the duty of the Government of the day to take all necessary steps to prevent the standard rates of wages, in any trade or occupation whatsoever, from suffering any reduction, relatively to the contemporary cost of living. Unfortunately, the present Government, like the Liberal and Conservative Parties, so far refuses to speak on this important matter with any clear voice. We claim that it should be a cardinal point of Government policy to make it plain to every capitalist employer that any attempt to reduce the customary rates of wages when peace comes, or to take advantage of the dislocation of demobilization to worsen the conditions of employment in any grade whatsoever, will certainly lead to embittered industrial strife, which will be in the highest degree detrimental to the national interests; and that the Government of the day will not hesitate to take all necessary steps to avert such a calamity. In the great impending crisis the Government of the day should not only, as the greatest employer of both brain workers and manual workers, set a good example in this respect, but should also actively seek to influence private employers by proclaiming in advance that it will not itself attempt to lower the standard rates of conditions in public employment; by announcing that it will insist on the most rigorous observance of the fair-wages clause in all public contracts; and by explicitly recommending every local authority to adopt the same policy.

But nothing is more dangerous to the standard of life, or so destructive of those minimum conditions of healthy existence, which must in the interests of the community be assured to every worker, than any widespread or continued unemployment. It has always been a fundamental principle of the Labor Party (a point on which, significantly enough, it has not been followed by either of the other political parties) that, in a modern industrial community, it is one

of the foremost obligations of the Government to find, for every willing worker, whether by hand or by brain, productive work at standard rates.

It is accordingly the duty of the Government to adopt a policy of deliberately and systematically preventing the occurrence of unemployment, instead of (as heretofore) letting unemployment occur, and then seeking, vainly and expensively, to relieve the unemployed. It is now known that the Government can, if it chooses, arrange the public works and the orders of national departments and local authorities in such a way as to maintain the aggregate demand for labor in the whole kingdom (including that of capitalist employers) approximately at a uniform level from year to year; and it is therefore a primary obligation of the Government to prevent any considerable or widespread fluctuations in the total numbers employed in times of good or bad trade. But this is not all. In order to prepare for the possibility of there being any unemployment, either in the course of demobilization or in the first years of peace, it is essential that the Government should make all necessary preparations for putting instantly in hand, directly or through the local authorities, such urgently needed public works as (a) the rehousing of the population alike in rural districts, mining villages, and town slums, to the extent possibly, of a million new cottages and an outlay of three hundred millions sterling; (b) the immediate making good of the shortage of schools, training colleges, technical colleges, etc., and the engagement of the necessary additional teaching, clerical, and administrative staffs; (c) new roads; (d) light railways; (e) the unification and reorganization of the railway and canal system; (f) afforestation; (g) the reclamation of land; (h) the development and better equipment of our ports and harbors; (i) the opening up of access to land by cooperative small holdings and in other practicable ways. Moreover, in order to relieve any pressure of an overstocked labor market, the opportunity should be taken, if unemployment should threaten to become widespread, (a) immediately to raise the school-leaving age to 16; (b) greatly to increase the number of scholarships and bursaries for secondary and higher education; and (c) substantially to shorten the hours of labor of all young persons, even to a greater extent than the eight hours per week contemplated in the new education bill, in order to enable them to attend technical and other classes in the daytime. Finally, wherever practicable, the hours of adult labor should be reduced to not more than 48 per week, without reduction of the standard rates of wages. There can be no economic or other justification for keeping any man or woman at work for long hours, or at overtime, whilst others are unemployed.

SOCIAL INSURANCE AGAINST UNEMPLOYMENT.

In so far as the Government fails to prevent unemployment—whenever it finds it impossible to discover for any willing worker, man or woman, a suitable situation at the standard rate—the Labor Party holds that the Government must, in the interest of the community as a whole, provide him or her with adequate maintenance, either with such arrangements for honorable employment or with such useful training as may be found practicable, according to age, health, and previous occupation. In many ways the best form of provision for those who must be unemployed, because the industrial organization of the community so far breaks down as to be temporarily unable to set them to work, is the out-of-work benefit afforded by a well administered trade-union. This is a special tax on the trade-unionists themselves which they have voluntarily undertaken but toward which they have a right to claim a public subvention—a subvention which was actually granted by Parliament (though only to the extent of a couple of shillings or so per week) under Part II of the insurance act. The arbitrary withdrawal by the Government in 1915 of this statutory right of the trade-unions was one of the least excusable of the war economies; and the Labor Party must insist on the resumption of this subvention immediately the war ceases, and on its increase to at least half the amount spent in out-of-work benefit. The extension of State unemployment insurance to other occupations may afford a convenient method of providing for such of the unemployed, especially in the case of badly paid women workers and the less skilled men, whom it is difficult to organize into trade-unions. But the weekly rate of the State unemployment benefit needs, in these days of high prices, to be considerably raised; whilst no industry ought to be compulsorily brought within its scope against the declared will of the workers concerned, and especially of their trade-unions. In one way or another remunerative employment or honorable maintenance must be found for every willing worker, by hand or by brain, in bad times as well as in good. It is clear that, in the twentieth century, there must be no question of driving the unemployed to anything so obsolete and discredited as either private charity, with its haphazard and ill-considered doles, or the poor law, with the futilities and barbarities of its “stone yard,” or its “able-bodied test workhouse.” Only on the basis of a universal application of the policy of the national minimum, affording complete security against destitution, in sickness and health, in good times and bad alike, to every member of the community, of whatever age or sex, can any worthy social order be built up.

THE DEMOCRATIC CONTROL OF INDUSTRIES.

The universal application of the policy of the national minimum is, of course, only the first of the pillars of the house that the Labor Party intends to see built. What marks off this party most distinctly from any of the other political parties is its demand for the full and genuine adoption of the principle of democracy. The first condition of democracy is effective personal freedom. This has suffered so many encroachments during the war that it is necessary to state with clearness that the complete removal of all the war-time restrictions on freedom of speech, freedom of publication, freedom of the press, freedom of travel, and freedom of choice of place of residence and kind of employment must take place the day after peace is declared. The Labor Party declares emphatically against any continuance of the military service acts a moment longer than the imperative requirements of the war excuse. But individual freedom is of little use without complete political rights. The Labor Party sees its repeated demands largely conceded in the present representation of the people act, but not yet wholly satisfied. The party stands, as heretofore, for complete adult suffrage, with not more than a three months' residential qualification, for effective provision for absent electors to vote, for absolutely equal rights for both sexes, for the same freedom to exercise civic rights for the "common soldier" as for the officer, for shorter Parliaments, for the complete abolition of the House of Lords, and for a most strenuous opposition to any new second chamber, whether elected or not, having in it any element of heredity or privilege, or of the control of the House of Commons by any party or class. But unlike the Conservative and Liberal Parties, the Labor Party insists on democracy in industry as well as in government. It demands the progressive elimination from the control of industry of the private capitalist, individual or joint-stock; and the setting free of all who work, whether by hand or by brain, for the service of the community, and of the community only. And the Labor Party refuses absolutely to believe that the British people will permanently tolerate any reconstruction or perpetuation of the disorganization, waste, and inefficiency involved in the abandonment of British industry to a jostling crowd of separate private employers, with their minds bent not on the service of the community but—by the very law of their being—only on the utmost possible profiteering. What the nation needs is undoubtedly a great bound onward in its aggregate productivity. But this can not be secured merely by pressing the manual workers to more strenuous toil, or even by encouraging the "captains of industry" to a less wasteful organization of their several enterprises on a profit-making basis. What the Labor Party looks to is a genuinely scientific reorganization of the

nation's industry, no longer deflected by individual profiteering, on the basis of the common ownership of the means of production; the equitable sharing of the proceeds among all who participate in any capacity and only among these, and the adoption, in particular services and occupations, of those systems and methods of administration and control that may be found in practice best to promote not profiteering, but the public interest.

IMMEDIATE NATIONALIZATION.

The Labor Party stands not merely for the principle of the common ownership of the nation's land, to be applied as suitable opportunities occur, but also, specifically, for the immediate nationalization of railways, mines, and the production of electrical power. We hold that the very foundation of any successful reorganization of British industry must necessarily be found in the provision of the utmost facilities for transport and communication, the production of power at the cheapest possible rate, and the most economical supply of both electrical energy and coal to every corner of the Kingdom. Hence the Labor Party stands unhesitatingly for the national ownership and administration of the railways and canals, and their union, along with harbors and roads and the posts and telegraphs—not to say also the great lines of steamers which could at once be owned, if not immediately directly managed in detail, by the Government—in a united national service of communication and transport; to be worked, unhampered by capitalist, private or purely local interests (and with a steadily increasing participation of the organized workers in the management, both central and local), exclusively for the common good. If any government should be so misguided as to propose, when peace comes, to hand the railways back to the shareholders, or should show itself so spendthrift of the nation's property as to give these shareholders any enlarged franchise by presenting them with the economies of unification or the profits of increased railway rates, or so extravagant as to bestow public funds on the reequipment of privately owned lines—all of which things are now being privately intrigued for by the railway interests—the Labor Party will offer any such project the most strenuous opposition. The railways and canals, like the roads, must henceforth belong to the public, and to the public alone.

In the production of electricity, for cheap power, light, and heating, this country has so far failed, because of hampering private interests, to take advantage of science. Even in the largest cities we still "peddle" our electricity on a contemptibly small scale. What is called for, immediately after the war, is the erection of a score of gigantic "super-power stations," which could generate, at incredibly cheap rates, enough electricity for the use of every industrial estab-

lishment and every private household in Great Britain, the present municipal and joint-stock electrical plants being universally linked up and used for local distribution. This is inevitably the future of electricity. It is plain that so great and so powerful an enterprise, affecting every industrial enterprise and eventually every household, must not be allowed to pass into the hands of private capitalists. They are already pressing the Government for the concession, and neither the Liberal nor the Conservative Party has yet made up its mind to a refusal of such a new endowment of profiteering in what will presently be the life blood of modern productive industry. The Labor Party demands that the production of electricity on the necessary gigantic scale shall be made from the start (with suitable arrangements for municipal cooperation in local distribution) a national enterprise, to be worked exclusively with the object of supplying the whole Kingdom with the cheapest possible power, light, and heat.

But with railways and the generation of electricity in the hands of the public it would be criminal folly to leave to the present 1,500 colliery companies the power of "holding up" the coal supply. These are now all working under public control, on terms that virtually afford to their shareholders a statutory guaranty of their swollen incomes. The Labor Party demands the immediate nationalization of mines, the extraction of coal and iron being worked as a public service (with a steadily increasing participation in the management, both central and local, of the various grades of persons employed), and the whole business of the retail distribution of household coal being undertaken as a local public service by the elected municipal or county councils. And there is no reason why coal should fluctuate in price any more than railway fares, or why the consumer should be made to pay more in winter than in summer, or in one town than another. What the Labor Party would aim at is, for household coal of standard quality, a fixed and uniform price for the whole Kingdom, payable by rich and poor alike, as unalterable as the penny postage stamp.

But the sphere of immediate nationalization is not restricted to these great industries. We shall never succeed in putting the gigantic system of health insurance on a proper footing, or secure a clear field for the beneficent work of the friendly societies, or gain a free hand for the necessary development of the urgently called for ministry of health and the local public health service, until the nation expropriates the profit-making industrial insurance companies which now so tyrannously exploit the people with their wasteful house-to-house industrial life insurance. Only by such an expropriation of life assurance companies can we secure the universal

provision, free from the burdensome toll of weekly pence, of the indispensable funeral benefit. Nor is it in any sense a "class" measure. Only by the assumption by a state department of the whole business of life assurance can the millions of policyholders of all classes be completely protected against the possibly calamitous results of the depreciation of securities and suspension of bonuses which the war is causing. Only by this means can the great staff of insurance agents find their proper place as civil servants, with equitable conditions of employment, compensation for any disturbance and security of tenure, in a nationally organized public service for the discharge of the steadily increasing functions of the Government in vital statistics and social insurance.

In quite another sphere the Labor Party sees the key to temperance reform in taking the entire manufacture and retailing of alcoholic drink out of the hands of those who find profit in promoting the utmost possible consumption. This is essentially a case in which the people, as a whole, must assert its right to full and unfettered power for dealing with the licensing question in accordance with local opinion. For this purpose, localities should have conferred upon them facilities (a) to prohibit the sale of liquor within their boundaries, (b) to reduce the number of licenses and regulate the conditions under which they may be held, and (c) if a locality decides that licenses are to be granted, to determine whether such licenses shall be under private or any form of public control.

MUNICIPALIZATION.

Other main industries, especially those now becoming monopolized, should be nationalized as opportunity offers. Moreover, the Labor Party holds that the municipalities should not confine their activities to the necessarily costly services of education, sanitation, and police; nor yet rest content with acquiring control of the local water, gas, electricity, and tramways; but that every facility should be afforded to them to acquire (easily, quickly, and cheaply) all the land they require and to extend their enterprises in housing and town planning, parks, and public libraries, the provision of music and the organization of recreation; and also to undertake, besides the retailing of coal, other services of common utility, particularly the local supply of milk, wherever this is not already fully and satisfactorily organized by a cooperative society.

CONTROL OF CAPITALIST INDUSTRY.

Meanwhile, however, we ought not to throw away the valuable experience now gained by the Government in its assumption of the importation of wheat, wool, metals, and other commodities, and in its control of the shipping, woolen, leather, clothing, boot and shoe,

milling, baking, butchering, and other industries. The Labor Party holds that, whatever may have been the shortcomings of this government importation and control, it has demonstrably prevented a lot of "profiteering." Nor can it end immediately on the declaration of peace. The people will be extremely foolish if they ever allow their indispensable industries to slip back into the unfettered control of private capitalists, who are, actually at the instance of the Government itself, now rapidly combining, trade by trade, into monopolist trusts, which may presently become as ruthless in their extortion as the worst American examples. Standing as it does for the democratic control of industry, the Labor Party would think twice before it sanctioned any abandonment of the present profitable centralization of purchase of raw material; of the present carefully organized "rationing," by joint committees of the trades concerned, of the several establishments with the materials they require; of the present elaborate system of "costing" and public audit of manufacturers' accounts so as to stop the waste heretofore caused by the mechanical inefficiency of the more backward firms; of the present salutary publicity of manufacturing processes and expenses thereby insured; and, on the information thus obtained (in order never again to revert to the old-time profiteering) of the present rigid fixing, for standardized products, of maximum prices at the factory, at the warehouse of the wholesale trader, and in the retail shop. This question of the retail prices of household commodities is emphatically the most practical of all political issues to the woman elector. The male politicians have too long neglected the grievances of the small household, which is the prey of every profiteering combination; and neither the Liberal nor the Conservative Party promises in this respect any amendment. This, too, is in no sense a "class" measure. It is, so the Labor Party holds, just as much the function of government and just as necessary a part of the democratic regulation of industry to safeguard the interests of the community as a whole and those of all grades and sections of private consumers in the matter of prices as it is, by the factory and trade boards acts, to protect the rights of the wage-earning producers in the matter of wages, hours of labor, and sanitation.

A REVOLUTION IN NATIONAL FINANCE.

In taxation, also, the interests of the professional and housekeeping classes are at one with those of the manual workers. Too long has our national finance been regulated, contrary to the teaching of political economy, according to the wishes of the possessing classes and the profits of the financiers. The colossal expenditure involved in the present war (of which, against the protest of the Labor Party,

only a quarter has been raised by taxation, whilst three-quarters have been borrowed at onerous rates of interest, to be a burden on the nation's future) brings things to a crisis. When peace comes, capital will be needed for all sorts of social enterprises, and the resources of Government will necessarily have to be vastly greater than they were before the war. Meanwhile innumerable new private fortunes are being heaped up by those who have taken advantage of the nation's needs; and the one-tenth of the population which owns nine-tenths of the riches of the United Kingdom, far from being made poorer, will find itself, in the aggregate, as a result of the war, drawing in rent and interest and dividends a larger nominal income than ever before. Such a position demands a revolution in national finance. How are we to discharge a public debt that may well reach the almost incredible figure of 7,000 million pounds sterling and at the same time raise an annual revenue which, for local as well as central government, must probably reach 1,000 millions a year? It is over this problem of taxation that the various political parties will be found to be most sharply divided.

The Labor Party stands for such a system of taxation as will yield all the necessary revenue to the Government without encroaching on the prescribed national minimum standard of life of any family whatsoever; without hampering production or discouraging any useful personal effort, and with the nearest possible approximation to equality of sacrifice. We definitely repudiate all proposals for a protective tariff, in whatever specious guise they may be cloaked, as a device for burdening the consumer with unnecessarily enhanced prices, to the profit of the capitalist employer or landed proprietor, who avowedly expects his profit or rent to be increased thereby. We shall strenuously oppose any taxation, of whatever kind, which would increase the price of food or of any other necessary of life. We hold that indirect taxation on commodities, whether by customs or excise, should be strictly limited to luxuries, and concentrated principally on those of which it is socially desirable that the consumption should be actually discouraged. We are at one with the manufacturer, the farmer, and the trader in objecting to taxes interfering with production or commerce, or hampering transport and communications. In all these matters—once more in contrast with the other political parties, and by no means in the interests of the wage earners alone—the Labor Party demands that the very definite teachings of economic science should no longer be disregarded.

For the raising of the greater part of the revenue now required the Labor Party looks to the direct taxation of the incomes above the necessary cost of family maintenance; and for the requisite effort to pay off the national debt, to the direct taxation of private fortunes, both

during life and at death. The income tax and super tax ought at once to be thoroughly reformed in assessment and collection, in abatements and allowances and in graduation and differentiation, so as to levy the required total sum in such a way as to make the real sacrifice of all the taxpayers as nearly as possible equal. This would involve assessment by families instead of by individual persons so that the burden is alleviated in proportion to the number of persons to be maintained. It would involve the raising of the present unduly low minimum income assessable to the tax and the lightening of the present unfair burden on the great mass of professional and small trading classes by a new scale of graduation, rising from a penny in the pound on the smallest assessable income up to 16 or even 19 shillings in the pound on the highest income of the millionaires. It would involve bringing into assessment the numerous windfalls of profit that now escape, and a further differentiation between essentially different kinds of income. The excess profits tax might well be retained in an appropriate form; whilst so long as mining royalties exist the mineral rights duty ought to be increased. The steadily rising unearned increment of urban and mineral land ought, by an appropriate direct taxation of land values, to be wholly brought into the public exchequer. At the same time, for the service and redemption of the national debt, the death duties ought to be regraduated, much more strictly collected, and greatly increased. In this matter we need, in fact, completely to reverse our point of view and to rearrange the whole taxation of inheritance from the standpoint of asking what is the maximum amount that any rich man should be permitted at death to divert by his will from the national exchequer, which should normally be the heir to all private riches in excess of a quite moderate amount by way of family provision. But all this will not suffice. It will be imperative at the earliest possible moment to free the nation from at any rate the greater part of its new load of interest-bearing debt for loans which ought to have been levied as taxation; and the Labor Party stands for a special capital levy to pay off, if not the whole, a very substantial part of the entire national debt—a capital levy chargeable like the death duties on all property, but (in order to secure approximate equality of sacrifice) with exemption of the smallest savings, and for the rest at rates very steeply graduated, so as to take only a small contribution from the little people and a very much larger percentage from the millionaires.

Over this issue of how the financial burden of the war is to be borne and how the necessary revenue is to be raised, the greatest political battles will be fought. In this matter the Labor Party claims the support of four-fifths of the whole nation, for the interests

of the clerk, the teacher, the doctor, the minister of religion, the average retail shopkeeper and trader, and all the mass of those living on small incomes are identical with those of the artisan. The landlords, the financial magnates, the possessors of great fortunes will not, as a class, willingly forego the relative immunity that they have hitherto enjoyed. The present unfair subjection of the cooperative society to an excess profits tax on the "profits" which it has never made—specially dangerous as "the thin end of the wedge" of penal taxation of this laudable form of democratic enterprise—will not be abandoned without a struggle. Every possible effort will be made to juggle with the taxes so as to place upon the shoulders of the mass of laboring folk and upon the struggling households of the professional men and small traders (as was done after every previous war)—whether by customs or excise duties, by industrial monopolies, by unnecessarily high rates of postage and railway fares, or by a thousand and one other ingenious devices—an unfair share of the national burden. Against these efforts the Labor Party will take the firmest stand.

THE SURPLUS FOR THE COMMON GOOD.

In the disposal of the surplus above the standard of life society has hitherto gone as far wrong as in its neglect to secure the necessary basis of any genuine industrial efficiency or decent social order. We have allowed the riches of our mines, the rental value of the lands superior to the margin of cultivation, the extra profits of the fortunate capitalists, even the material outcome of scientific discoveries—which ought by now to have made this Britain of ours immune from class poverty or from any widespread destitution—to be absorbed by individual proprietors; and then devoted very largely to the senseless luxury of an idle rich class. Against this misappropriation of the wealth of the community, the Labor Party—speaking in the interests not of the wage-earners alone, but of every grade and section of producers by hand or by brain, not to mention also those of the generations that are to succeed us, and of the permanent welfare of the community—emphatically protests. One main pillar of the house that the Labor Party intends to build is the future appropriation of the surplus, not to the enlargement of any individual fortune, but to the common good. It is from this constantly arising surplus (to be secured, on the one hand, by nationalization and municipalization and, on the other, by the steeply graduated taxation of private income and riches) that will have to be found the new capital which the community day by day needs for the perpetual improvement and increase of its various enterprises, for which we shall decline to be dependent on the usury-exacting financiers. It is from the same source that has to be defrayed the public provision for the sick and

infirm of all kinds (including that for maternity and infancy) which is still so scandalously insufficient; for the aged and those prematurely incapacitated by accident or disease, now in many ways so imperfectly cared for; for the education alike of children, of adolescents and of adults, in which the Labor Party demands a genuine equality of opportunity, overcoming all differences of material circumstances; and for the organization of public improvements of all kinds, including the brightening of the lives of those now condemned to almost ceaseless toil, and a great development of the means of recreation. From the same source must come the greatly increased public provision that the Labor Party will insist on being made for scientific investigation and original research, in every branch of knowledge, not to say also for the promotion of music, literature and fine art, which have been under capitalism so greatly neglected, and upon which, so the Labor Party holds, any real development of civilization fundamentally depends. Society, like the individual, does not live by bread alone—does not exist only for perpetual wealth production. It is in the proposal for this appropriation of every surplus for the common good—in the vision of its resolute use for the building up of the community as a whole instead of for the magnification of individual fortunes—that the Labor Party, as the party of the producers by hand or by brain, most distinctively marks itself off from the older political parties, standing, as these do, essentially for the maintenance, unimpaired, of the perpetual private mortgage upon the annual product of the nation that is involved in the individual ownership of land and capital.

THE STREET OF TO-MORROW.

The house which the Labor Party intends to build, the four pillars of which have now been described, does not stand alone in the world. Where will it be in the street of to-morrow? If we repudiate, on the one hand, the imperialism that seeks to dominate other races, or to impose our own will on other parts of the British Empire, so we disclaim equally any conception of a selfish and insular "noninterventionism," unregarding of our special obligations to our fellow citizens overseas; of the corporate duties of one nation to another; of the moral claims upon us of the nonadult races, and of our own indebtedness to the world of which we are part. We look for an ever-increasing intercourse, a constantly developing exchange of commodities, a steadily growing mutual understanding, and a continually expanding friendly cooperation among all the peoples of the world. With regard to that great commonwealth of all races, all colors, all religions, and all degrees of civilization, that we call the British Empire, the Labor Party stands for its maintenance and its progressive development on the lines of local autonomy and "Home Rule All

Round"; the fullest respect for the rights of each people, whatever its color, to all the democratic self-government of which it is capable, and to the proceeds of its own toil upon the resources of its own territorial home; and the closest possible cooperation among all the various members of what has become essentially not an empire in the old sense, but a Britannic alliance. We desire to maintain the most intimate relations with the Labor parties overseas. Like them, we have no sympathy with the projects of "imperial federation," in so far as these imply the subjection to a common imperial legislature wielding coercive power (including dangerous facilities for coercive imperial taxation and for enforced military service), either of the existing self-governing dominions, whose autonomy would be thereby invaded; or of the United Kingdom, whose freedom of democratic self-development would be thereby hampered; or of India and the colonial dependencies, which would thereby run the risk of being further exploited for the benefit of a "white empire." We do not intend, by any such "imperial senate," either to bring the plutocracy of Canada and South Africa to the aid of the British aristocracy, or to enable the landlords and financiers of the mother country to unite in controlling the growing popular democracies overseas. The absolute autonomy of each self-governing part of the Empire must be maintained intact. What we look for, besides a constant progress in democratic self-government of every part of the Britannic alliance, and especially in India, is a continuous participation of the ministers of the dominions, of India, and eventually of other dependencies (perhaps by means of their own ministers specially resident in London for this purpose) in the most confidential deliberations of the cabinet, so far as foreign policy and imperial affairs are concerned; and the annual assembly of an imperial council, representing all constituents of the Britannic alliance and all parties in their local legislatures, which should discuss all matters of common interest, but only in order to make recommendations for the simultaneous consideration of the various autonomous local legislatures of what should increasingly take the constitutional form of an alliance of free nations. And we carry the idea further. As regards our relations to foreign countries, we disavow and disclaim any desire or intention to dispossess or to impoverish any other state or nation. We seek no increase of territory. We disclaim all idea of "economic war." We ourselves object to all protective customs tariffs; but we hold that each nation must be left free to do what it thinks best for its own economic development, without thought of injuring others. We believe that nations are in no way damaged by each other's economic prosperity or commercial progress; but, on the contrary, that they are actually themselves mutually enriched thereby. We would

therefore put an end to the old entanglements and mystifications of secret diplomacy and the formation of leagues against leagues. We stand for the immediate establishment, actually as a part of the treaty of peace with which the present war will end, of a universal league or society of nations, a supernational authority, with an international high court to try all justiciable issues between nations; an international legislature to enact such common laws as can be mutually agreed upon, and an international council of mediation to endeavor to settle without ultimate conflict even those disputes which are not justiciable. We would have all the nations of the world most solemnly undertake and promise to make common cause against any one of them that broke away from this fundamental agreement. The world has suffered too much from war for the Labor Party to have any other policy than that of lasting peace.

MORE LIGHT—BUT ALSO MORE WARMTH.

The Labor Party is far from assuming that it possesses a key to open all locks; or that any policy which it can formulate will solve all the problems that beset us. But we deem it important to ourselves as well as to those who may, on the one hand, wish to join the party, or, on the other, to take up arms against it, to make quite clear and definite our aim and purpose. The Labor Party wants that aim and purpose, as set forth in the preceding pages, with all its might. It calls for more warmth in politics, for much less apathetic acquiescence in the miseries that exist, for none of the cynicism that saps the life of leisure. On the other hand, the Labor Party has no belief in any of the problems of the world being solved by good will alone. Good will without knowledge is warmth without light. Especially in all the complexities of politics, in the still undeveloped science of society, the Labor Party stands for increased study, for the scientific investigation of each succeeding problem, for the deliberate organization of research, and for a much more rapid dissemination among the whole people of all the science that exists. And it is perhaps specially the Labor party that has the duty of placing this advancement of science in the forefront of its political program. What the Labor Party stands for in all fields of life is, essentially, democratic cooperation; and cooperation involves a common purpose which can be agreed to; a common plan which can be explained and discussed, and such a measure of success in the adaptation of means to ends as will insure a common satisfaction. An autocratic sultan may govern without science if his whim is law. A plutocratic party may choose to ignore science, if it is heedless whether its pretended solutions of social problems that may win political triumphs ultimately succeed or fail. But no Labor Party can hope to maintain its position unless

its proposals are, in fact, the outcome of the best political science of its time; or to fulfill its purpose unless that science is continually wresting new fields from human ignorance. Hence, although the purpose of the Labor Party must, by the law of its being, remain for all time unchanged, its policy and its program will, we hope, undergo a perpetual development as knowledge grows and as new phases of the social problem present themselves in a continually finer adjustment of our measures to our ends. If law is the mother of freedom, science, to the Labor Party, must be the parent of law.

RECONSTRUCTION PROGRAM OF GERMAN TRADE-UNIONS.¹

The following reconstruction scheme has been drawn up by the German trade-union organizations and federations of private salaried employees and was submitted in the form of a petition to the Federal Council (*Bundesrat*) and the Reichstag. The demands contained therein are grouped under seven headings: General economic measures, food supply, employment offices, discharge of soldiers and persons in the auxiliary service, regulation of working conditions and protective labor legislation, aid for soldiers and their dependents, and housing. The original petition contains lengthy reasons for each of the demands made which, owing to lack of space, can not be reproduced here. The demands proper are as follows:

GENERAL ECONOMIC MEASURES.

1. Representatives of the trade-union groups and of the joint committees of the salaried employees' federations of the most important branches of industry and trades shall be appointed to cooperate with the imperial commissioner for industrial reconstruction (*Reichs-Kommissar für Übergangswirtschaft*) and the economic committee of the imperial ministry of the interior. The advisory board of the imperial commissioner shall likewise be supplemented by the appointment of representatives of these organizations.

2. Until the return of normal economic conditions the whole of the imports and exports shall be controlled by the commissioner. Particular care shall be taken at the conclusion of peace that Germany obtains a sufficient number of counterclaims to cover her own requirements. Further, encouragement must be given to the export of such products as are not absolutely required for use at home.

3. Import permits shall be made dependent upon the approval of the imperial commissioner. Where the right of approving imports and exports has been placed in the hands of special organizations these shall be placed under the permanent control of the commissioner. Representatives of the workmen and salaried employees of industry and trade groups concerned shall participate in this control. In making purchases these organizations must do away with mutual competition of their purchasing agents and see to it that contracts are concluded under the most favorable conditions. The profits of these organizations shall not exceed a moderate return on the invested capital. Concealment of profits must be prevented. Their business transactions must be subject to public control. Organizations of the kind designated

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*, vol. 27, No. 42. Berlin, Oct. 20, 1917.

here are to continue in existence only so long as is necessary for the restoration of normal economic conditions in the country.

4. The export of products of which there is a scarcity in the home market may be made dependent on the approval of the imperial commissioner.

5. German shipping concerns, whether for sea or inland navigations, must submit to the orders of the commissioner, whose approval shall be particularly required for the fixing of rates and routes and for the disposal of cargo space. In the matter of space preference shall be given to raw materials and foodstuffs which are urgently required.

6. The extension of the inland waterways shall be taken in hand at once and be carried out by the Government according to uniform principles. The administration and operation of these waterways shall likewise be subject to the supervision of an imperial office.

7. The war companies founded for the supply of the various industries shall distribute the raw materials and partly manufactured goods according to the capacity and requirements of the individual establishments. This applies equally to goods imported from abroad and to those produced at home. The scheme of distribution is to be submitted for approval to the commissioner.

8. For the facilitation of the solution of the economic problems of the period of transition, for the collecting of data on economic conditions, and for the receiving and disposal of complaints, requests, and applications the imperial commissioner shall establish in the various Federal States and in Prussia for each district of each Province special economic boards (*Wirtschaftsämter*) composed of an equal number of representatives of employers, employees, and of the competent State government and presided over by a chairman appointed by the imperial commissioner.

9. In order to initiate and promote economic activity the Imperial and the Federal governments, as well as the provincial, district, and communal authorities, should lose no time in determining on, approving, and carrying out the public purchases and works that come within their scope. In the first place such purchases and works shall be accelerated which are of importance for the revival of economic activity, for the improvement of the food supply, and for the increase of housing accommodations.

10. The commissioner shall exercise control over all economic syndicates which aim at regulating production, markets, conditions of delivery, prices, and imports and exports. He may prohibit measures of the syndicates which may hamper the transition from war to peace conditions.

FOOD SUPPLY.

1. Until normal conditions have been reestablished it will be necessary to retain for the purposes of the food supply the present war kitchen and mass-feeding arrangements, the Government control of the most important foodstuffs, maximum prices, requisitioning and rationing, and penalties against profiteering. Prices and distribution must be arranged in such a manner as to secure to the masses of the population a cheap and adequate supply of food.

2. In the interest of an advantageous and well regulated food supply it will be advisable to retain the imperial grain office, the central purchasing association, and those companies connected with it which play an indispensable part in procuring foodstuffs.

3. The embargo on food exports must for the present remain in force until the market is sufficiently well stocked to permit the removal of restraints upon trade.

4. The importation of cattle, foodstuffs, and fodder must be encouraged in the same manner as during the war.

5. The production of foodstuffs must be actively promoted and facilities must be granted for the acquisition and employment under cooperative management of machinery and appliances and for the procuring of fertilizers, seed, and fodder.

6. All discrimination against cooperative societies and stores must be prohibited; nor must Government or communal employees be hindered from acquiring membership in them.

EMPLOYMENT OFFICES.

1. The procuring of employment must be regulated uniformly for the whole Empire by law. It must be effected free of charge and be based on equal representation of employers and employees in the administration of employment offices.

2. The organization of the employment offices must embrace all occupational groups. The employment offices for private salaried employees are to be arranged in three groups: For mercantile, technical, and office employees. A labor office (*Arbeitsamt*) shall be established for every large town, with its suburbs, and for each rural district. To this labor office shall be subordinated the various employment offices within its district. The individual labor offices within specified territorial districts shall be combined into federations (district labor offices), and an imperial labor office (*Reichsarbeitsamt*) shall be the central authority in this organization of the employment offices.

3. Until legislation is enacted to this effect, all employment offices not conducted for profit shall be grouped together by districts under central information offices (*Zentralauskunftsstellen*), and an imperial central office (*Reichsstelle*) with jurisdiction over all employment offices shall regulate the relations of the central information offices to each other.

Vacancies shall be reported to a general employment office or to an employment office for the particular occupation in question. Employment offices operated for profit shall, like free employment offices, be under obligation to report to the central information office the number of vacancies and applications for employment filed with them. The filling of vacancies shall not imply exemption from the obligation to report them. The central information offices shall effect the balancing of supply and demand in the labor market within their district.

The imperial labor office shall effect the balancing of supply and demand between the individual central information offices and issue regulations for the conduct of employment offices during the transition period.

4. Special postal, telegraph, and telephone facilities shall be granted to the employment offices for communication with one another and with the central information offices. The central information offices shall be authorized to grant free transportation to their place of employment to soldiers and persons in the auxiliary service on their discharge.

5. The engagement of alien male and female labor shall be prohibited, except where a shortage of native labor can be proved to exist. Whether alien labor may be engaged shall be decided by the central information offices after a hearing of employers' and workmen's economic organizations. These offices shall also determine measures for the prevention of depression of wages through the introduction of alien labor. The imperial labor office shall regulate the principles by which the admission of alien labor shall be governed during the transition period. Alien workmen shall receive the same wages and be guaranteed the same rights as native workmen.

DISCHARGE OF SOLDIERS AND OF PERSONS IN THE AUXILIARY SERVICE.

1. The discharge of soldiers from military service is to be so regulated as to secure the immediate release of business men, technical experts, foremen, skilled workmen, and administrative officials who are urgently required for the restoration of normal economic activity and for the resumption of operation of indispensable establishments. In releasing soldiers preference should be given to those trained for an occupation in which there is a particularly strong demand for labor. Discharge in general should be effected with as little delay as possible. Congestion of the labor market

should be no reason for detaining the soldiers longer in military service than is necessary for military reasons.

2. The discharged soldier shall be conveyed free of charge to the place of residence of his family, or to his place of employment, if he can show that he has obtained work.

3. The military authorities shall do all in their power to assist the enlisted men in obtaining suitable employment, especially by directing them to the proper employment office, by giving them information, and by assisting them in their correspondence.

4. Reemployment in the establishment in which they were employed before the outbreak of the war should as far as possible be assured to those soldiers who have to support a family, provided that they have been employed in the establishment at least one year before being called in for war service. Whether it is possible in individual cases for the owner of the establishment to comply with this obligation shall be decided by an equipartisan arbitration board. Soldiers and auxiliary service men who are unable or unwilling to continue their membership in an establishment pension fund under the same conditions as formerly must be permitted to retain the rights they have acquired on payment of a moderate fee.

5. Workmen and salaried employees who have been discharged from military service and can not be assigned to suitable employment shall receive unemployment allowances. Until State unemployment insurance shall have been introduced, the outlay made by the communes on this account is to be refunded to them by the Imperial Government.

6. For the purpose of recuperating and of attending to their domestic and business affairs, soldiers on their discharge from the Army shall be regarded as on leave for a full month, and shall draw pay at their former rate. Likewise shall dependents of discharged soldiers continue to receive for a full month their former State or communal family subsidy, irrespective of the fact that the discharged men have obtained employment, and for a still further period if they are unemployed.

7. Soldiers whose health has been seriously impaired and who are to be discharged from the army must be granted sufficient leave for recuperating, and, if necessary, must be enabled to take a rest or a course of treatment in a health resort or a sanatorium at the expense of the Empire. The same privilege must be accorded to those interned abroad on their return home.

8. Employers who, as a rule, employ not less than 20 workmen shall be required to find suitable employment in their establishment for at least one disabled soldier to every 20 workmen. Exceptions to this rule shall only be allowed by the equipartisan arbitration board after a hearing of the wages board concerned.

9. Disabled soldiers who before being called into military service were employed in Government or communal establishments shall be reinstated irrespective of the number of workmen or employees engaged there.

10. The wages of disabled soldiers in private as well as in State and communal establishments must be computed with consideration of the actual work performed by them; in particular they must receive the same wages for piecework as able-bodied workers. In no circumstances must pensions be taken into account in computing earnings.

11. The employment conditions created by the national auxiliary service law shall be voided soon after the termination of the war in such measure as the restoration of normal economic activity requires. Workmen or employees who gave up positions to take up auxiliary service work shall, on being discharged from such work, be entitled to unemployment allowances until they secure employment.

12. Male and female workers and salaried employees who have to be discharged in order to make possible the reinstatement of ex-soldiers shall also receive unemployment allowances unless they are assigned to some other employment.

REGULATION OF WORKING CONDITIONS AND PROTECTIVE LEGISLATION.

1. In view of the unsettled conditions that may prevail during the transition period, unemployment allowances are to be granted from Imperial funds, so long as national unemployment insurance has not been introduced.

2. The state of affairs created by Federal decree, whereby income from earnings has been made exempt from attachment to a larger extent than provided in article 4, paragraph 4, of the law on attachment of wages, shall be maintained. Article 850, paragraph 2, of the law on civil procedure shall be made applicable to wages and salaries of workmen and employees as well as to pensions and survivors' pensions of persons employed on the basis of private contract, in so far as these wages or salaries do not exceed 5,000 marks (\$1,190) per annum.

3. Provisions of protective labor legislation which have been temporarily suspended during the war must be restored to full effectiveness immediately on the conclusion of peace. The prohibition of night work in bakeries and confectioneries decreed by the Federal council, as well as the 7 o'clock closing order for shops other than those selling foodstuffs, shall be retained. Where the hours of labor have been lengthened in imperial, State, or communal establishments they must be reduced to the prewar time basis.

4. With the exception of the sickness insurance for homeworkers, which must be newly regulated, the provision of the workmen's insurance laws which have been temporarily suspended during the war must be put in force again immediately on the conclusion of peace.

5. The Federal decree relating to maternity benefits shall remain in force during the transition period, and steps are to be taken to incorporate its provisions in the Imperial Workmen's Insurance Code.

6. For adjusting wage disputes and labor differences which can not be settled by the authorities designated in collective agreements, official equipartisan arbitration boards shall be created in the individual Federal States and Provinces and an equipartisan national arbitration board shall be created in the imperial commission for industrial reconstruction for the adjustment of disputes relating to a national collective wage agreement.

7. The workmen's and salaried employees' committees, and arbitration boards created through the law on the national auxiliary service, are to be retained during the period of reconstruction and in normal times in such a manner that boards corresponding to the local arbitration board shall be created in each urban or rural district, and boards corresponding to those maintained in the district of each army corps shall be created for the district of each Province or Federal State. The military chairmen of these boards shall be replaced by officials of the factory inspection service, and the commissioner for industrial reconstruction shall assume the functions of the war office (*Kriegsamt*). In localities in which an industrial or mining arbitration court exists this may, with the consent of both parties, also be appealed to as an arbitration board.

8. The workmen's and salaried employees' committees shall examine requests, wishes, and complaints of the workers of their establishments in regard to wage and working conditions and in submitting them to the employer shall express their opinion on the question involved.

The arbitration boards shall decide disputes which can not be settled through discussion between the workmen's committee and the employer, by making an award. The parties to the dispute shall be bound to appear before the arbitration board when called upon. The arbitration board shall give an award, even if one of the parties remains away from the arbitration proceedings. The parties to the dispute must declare within a certain time limit whether they accept the award.

9. Workmen and salaried employees shall by imperial law be granted recognized representation in the form of chambers organized on an occupational basis.

10. Agreements made by joint committees of employers and workmen's or salaried employees' organizations with the object of furnishing employment or providing for disabled soldiers shall be transmitted to the commissioner. Every effort should be made to give effect to these agreements.

11. Trade boards so far created for home workers shall be retained and others shall be established for those trades in which they are yet lacking. They shall be authorized to regulate wage and working conditions in a legally binding manner.

12. When orders are given for work to be done at home in behalf of the Empire, States, or communes, the wages therefor shall, after consultation with the trade organizations of employers and workmen, be determined in such a manner that the share of the workers and subcontractors is clearly defined and may not be reduced by subsequent agreements. The commissioner shall be authorized to give binding force to these wage agreements for home workers. Where no special wage or arbitration board exist disputes are to be settled by the arbitration board of the particular urban or rural district.

AID FOR SOLDIERS AND THEIR DEPENDENTS.

1. Public loan banks shall be established for the assistance of soldiers who have fallen into financial difficulties. These banks shall grant loans at moderate interest and on easy terms of repayment. The requisite funds shall be provided by the Imperial Government.

2. The protection of debtors, inaugurated during the war, shall be retained and extended during the period of reconstruction. A special law shall be enacted which shall determine how the concessions allowed are to be redeemed.

3. The rent arbitration boards shall be retained. Where disputes arise regarding accumulated arrears of rent, the boards shall strive to effect a compromise between the parties, and where these efforts prove unavailing they shall with due consideration of the income and financial situation of the debtor pronounce their own award, which shall be legally binding. Whatever facilities it shall be possible to grant in the way of recourse to the loan banks, payment by installments, postponement of payment, and remission of part of the debt by the landlord, or assumption of it by the commune, State, or Empire, shall be duly considered in the award.

HOUSING.

1. The erection of small dwellings shall be promoted through participation by the State and communes in the capital stock of public welfare building associations, through the sale of fiscal or communal land at moderate terms, or through the leasing in the form of hereditary building rights to such associations, through the granting of mortgage loans at moderate interest and easy refunding terms by insurance institutes and State and communal savings banks, or through the guaranty by the State of mortgage loans made by third parties.

2. The communes shall see to it that the building land at present lying idle, whether privately or publicly owned, shall be opened up as soon as possible; they should make the reduction of improvement taxes and other real estate taxes and the promotion of the erection of small dwellings part of their program, and they should also erect dwellings on their own account.

3. The settlement on the land of disabled soldiers who are familiar with and capable of agricultural labor shall be promoted through creation of suitable State, communal, and corporate organizations and through subsidies to welfare associations which devote themselves to this task. Home colonization, a matter of very urgent necessity, shall be promoted by the fixing of low fares for local and suburban traffic.

4. House owners shall be granted concessions in the matter of payments of mortgage interest which have fallen into arrears during the War through no fault of their own. In order to clear off such arrears the mortgage arbitration board shall with due consideration of the income and financial situation of the debtor endeavor to induce the creditor to accept payment by installments or to remit part of the debt, or where necessary it should pronounce its own award.

Security for mortgages on real estate shall be provided up to a certain limit from State funds.

GOVERNMENTAL CONTROL OF LABOR IN GERMANY.

Various articles in preceding numbers of the MONTHLY REVIEW¹ have traced the experience of the British Government in its efforts to mobilize the labor force of the country for the needs of the war. In practice these efforts have rarely involved a resort to compulsion of any sort, the most important attempt at compulsory control being the leaving-certificate provision of the Munitions of War Act of 1915. The amended act of 1916 greatly modified the stringency of this clause, and the whole scheme of leaving certificates was repealed in October, 1917.

Until very recently the Bureau of Labor Statistics has had no accurate information regarding the manner in which the German Government was exercising control over civil labor. A copy of the German law upon this subject, however, has now been received, and a translation thereof is submitted below, together with the administrative orders accompanying it. The law is entitled "Gesetz über den Vaterländischen Hilfsdienst." Its purpose is to mobilize civil labor for war production purposes. To this end it places very great restrictions upon the freedom of labor movement and action, and gives the military authorities a very important control over the whole labor situation.

TEXT OF THE NATIONAL AUXILIARY SERVICE LAW, AND REGULATIONS AND ORDERS RELATING TO IT.

The National Auxiliary Service Law of December 5, 1916 (R. G. B. 1, 1916, No. 276).²

ARTICLE 1. Every male German citizen from the completed seventeenth to the completed sixtieth year of age who is not in service with the armed forces is subject to national auxiliary service for the duration of the war.

ART. 2. As active in the national auxiliary service are to be considered all persons employed by public authorities, in public institutions or establishments, war industries, agriculture and forestry, in nursing of the sick, economic war organizations of all kinds, or in other occupations or establishments which are of direct or indirect importance for the conduct of the war or the supply of the nation, in so far as the number of these persons does not exceed requirements.

¹ See, particularly, MONTHLY REVIEW, June, 1917, Labor in war time in Great Britain; September, 1917, Restrictions upon the freedom of labor movement in Great Britain during the war; December, 1917, Abolition of leaving certificates in Great Britain.

² Bulletin des Internationalen Arbeitsamtes, vol. 16, Nos. 8-9. Jena. 1917.

Persons subject to auxiliary service who before August 1, 1916, were employed in agriculture or forestry may not be withdrawn from this occupation for the purpose of assignment to another occupation in the national auxiliary service.

ART. 3. The War Office (*Kriegsamt*) created in the Prussian War Ministry is charged with the direction of the national auxiliary service.

ART. 4. The question whether and to what extent the number of persons employed by a public authority exceeds requirements is to be decided by the competent Imperial or State central authorities in agreement with the War Office. The question as to what are to be considered public institutions or establishments, and as to whether and to what extent the number of persons employed therein exceeds requirements is to be decided by the War Office after consultation of the competent Imperial or State central authorities.

In all other instances the question, whether an occupation or establishment is of importance in the meaning of article 2, as well as whether and to what extent the number of persons employed in an occupation, organization, or establishment exceeds requirements shall be decided by boards which shall be created for the district of each general command or for parts of the district.

ART. 5. Each board (art. 4, par. 2) shall be composed of one officer as chairman, two higher State officials, one of whom shall be from the factory inspection service, and two employers' and two workmen's representatives. The officer, as well as the employers' and workmen's representatives, is to be appointed by the War Office; in Bavaria, Saxony, and Wurttemberg these members are to be appointed by the war ministry, which, conjointly with the War Office, is in general charged with the enforcement of the law in these Federal States. The higher State officials are to be appointed by the central State authorities or by authorities designated by the latter. If the district of a general command includes territories of several Federal States the higher officials shall be appointed by the competent authorities of these Federal States; the officials of that Federal State in which the establishment, the organization, or the person exercising an occupation are located shall participate in the decisions of the board.

ART. 6. Decisions of the board (art. 4, par. 2) may be appealed to a board of appeals (*Zentralstelle*) which shall be created in the War Office and shall be composed of two officers of the War Office, one of whom shall act as chairman, two officials appointed by the imperial chancellor, one official appointed by the central authorities of the Federal State in which the establishment, organization, or the person exercising an occupation is located, as well as of one employers' and one workmen's representative. The second sentence of article 5 is applicable to the appointment of these representatives. If the decision relates to matters of interest to the navy one of the officers shall be appointed by the Imperial Navy Office. In appeals against decisions of boards located in Bavaria, Saxony, or Wurttemberg, one of the officers shall be appointed by the war ministry of the Federal State interested.

ART. 7. Persons subject to auxiliary service who are not employed within the meaning of article 2 may at any time be requisitioned for national auxiliary service.

As a rule the requisitioning is at first to be effected through a request for voluntary registration issued by the War Office or an authority designated by the central State authorities. If this request is not complied with in a sufficient measure each individual person subject to auxiliary service shall be requisitioned by special summons, in writing, of a board to be formed for each district of a military reserves commission (*Ersatzkommission*) and to be composed of an officer as chairman, one higher official, and two employers' and two workmen's representatives. In case of equality of votes the chairman has the deciding vote. Sentence two of article 5 is applicable for the appointment of the officer and of the employers' and workmen's representatives; the higher official is to be appointed by the central State authorities or by an authority designated by the latter.

Each person who has received such a special summons in writing shall seek employment in an occupation coming within the meaning of article 2. In so far as such employment is not obtained by the person in question within two weeks after receipt of the summons he shall be assigned to an employment by the board.

Appeals against the assignment to an employment shall be decided by the board created at the general command (art. 4, par. 2). Appeals have no staying effect.

ART. 8. In assigning a person subject to auxiliary service to an employment, his age, family conditions, place of residence, health, and former occupation shall be considered as much as possible; it shall also be investigated whether the prospective wages of the person assigned to an employment will be sufficient for his own sustenance and that of relatives supported by him.

ART. 9. No person shall give employment to a person subject to auxiliary service who is employed or has been employed within the last two weeks in any of the occupations designated in article 2 unless the person subject to auxiliary service produces a certificate from his last employer showing that he left his employment with the consent of the employer.

If an employer refuses to issue a leaving certificate requested by a person subject to auxiliary service, the latter may appeal to a board to be formed for each district of a military reserves commission and to be composed of a representative of the War Office as chairman and of three employers' and three workmen's representatives. Two of the employers' and two of the workmen's representatives are to be appointed as permanent representatives, while the remaining representatives shall be appointed from that occupational group to which the appellant belongs. If after investigation of the case in question the board finds that the appellant had a valid reason for leaving his employment the board shall issue a certificate to him, which shall have the same effect as a certificate issued by the employer.

The possibility of obtaining a suitable improvement of working conditions within the national auxiliary service shall be considered a particularly valid reason.

ART. 10. The War Office shall issue regulations for the procedure of the boards designated in article 4, paragraph 2, article 7, paragraph 2, and article 9, paragraph 2.

For the appointment of employers' and workmen's representatives to the boards (arts. 5 and 6, art. 7, par. 2, and art. 9, par. 2) by the War Office the latter shall obtain from employers' and workmen's organizations lists proposing suitable representatives.

If for the performance of the tasks of the boards designated in article 9, paragraph 2, similar boards (war committees, etc.) are already in existence they may with the consent of the War Office take the place of these boards.

ART. 11. Permanent workmen's committees must be in existence in all establishments operated for the national auxiliary service to which Title VII of the Industrial Code is applicable and which as a rule employ at least 50 workmen.

In so far as permanent workmen's committees in accordance with article 134h of the Industrial Code or with the mining laws do not exist in such establishments they shall be formed. The members of these shall be elected by the workmen of the establishment or branch establishment who are of age, from their own midst, through direct secret ballot according to the principles of proportionate representation. The central State authorities shall issue detailed regulations relating thereto.

Special committees (salaried employees' committees) shall be formed according to the same principles and with the same rights in establishments of the kind designated in paragraph 1 which employ more than 50 salaried employees subject to salaried employees' insurance.

ART. 12. The workmen's committee is charged with the promotion of good-will among the working force and between the working force and the employer. It shall bring to the knowledge of the employer proposals, wishes, and complaints of the work-

ing force relating to the equipment, the wage and working conditions of the establishment, and its welfare institutions, and shall express its views on these matters.

On demand of at least one-fourth of the membership of a workmen's committee a meeting must be called and the question proposed for discussion be made the order of the day.

ART. 13. If in disputes as to wage or other working conditions arising in an establishment of the kind designated in article 11 an agreement between the employer and the workmen's committee can not be effected each of the two parties may invoke arbitration by the board designated in article 9, paragraph 2, provided both parties have not invoked arbitration by an industrial, mining, guild, or mercantile arbitration court. In such a case articles 66 and 68 to 73 of the law on industrial arbitration courts are applicable with the reservation that a decision shall also be rendered if one of the parties does not appear at the arbitration procedure or is not willing to arbitrate, and that persons who have taken part in the dispute as employers or workmen or as members of a workmen's committee may not participate in the rendering of a decision.

If in an establishment operated for the national auxiliary service to which Title VII of the Industrial Code is applicable a permanent workmen's committee created in pursuance of the Industrial Code, the mining laws, or of article 11, paragraphs 2 or 3 of this law does not exist the board designated in article 9, paragraph 2, may be invoked for the arbitration of disputes between the working force and the employer as to wage or other working conditions; the same is applicable to agricultural establishments. The provisions of the second sentence of paragraph 1 are correspondingly applicable.

If the employer does not submit to the decision, leaving certificates (art. 9) may be issued, on their request, to the workmen who took part in the dispute. If, on the other hand, the workmen do not submit to the decision, reasons based on the award may not serve as ground for the issuing of leaving certificates.

ART. 14. Persons employed in the national auxiliary service may not be restricted in the exercise of their legal right of association and of holding meetings.

ART. 15. The competent service authorities shall issue regulations in the meaning of articles 11 to 13 for the industrial establishments of the military and naval administration.

ART. 16. Workmen assigned to agriculture in pursuance of this law shall not be subject to State regulations on domestic service.

ART. 17. Information as to employment and labor questions and as to wage conditions and operation of establishments requested through public announcement or direct inquiry by the War Office or the boards must be furnished.

The War Office is authorized to inspect establishments through one of its representatives.

ART. 18. The following may be punished with imprisonment up to one year and a fine up to 10,000 marks [\$2,380], or with either of them, or with detention in a jail:

(1) Whoever does not comply with an order assigning him to an occupation in pursuance of article 7, paragraph 3, of this law or without valid reason refuses to perform the work assigned to him.

(2) Whoever employs a workman in contravention of the provisions of article 9, paragraph 1.

(3) Whoever does not furnish within the fixed time limit the information provided for in article 17 or in giving such information knowingly makes untrue or incomplete statements.

ART. 19. The Federal Council shall issue the regulations required for the application of this law. General orders require the approval of a committee of 15 members elected by the Reichstag from among its own membership.

The War Office shall keep this committee currently informed on all important events, furnish it information on request, receive its proposals, and obtain the opinion of the committee before issuing important orders of a general nature.

The committee is authorized to convene during a recess of the Reichstag.

The Federal Council may provide imprisonment up to one year, or a fine up to 10,000 marks [\$2,380], or either of them, or detention in a jail for contraventions of the regulations for the application of this law.

ART. 20. The law shall come into force with the date of its promulgation. The Federal Council shall determine the date of its abrogation; if it does not make use of this authorization within one month after the conclusion of peace with the powers of Europe the law shall cease to be in force.

Order of December 21, 1916, Relating to Transitory Provisions for the Application of Articles 9 and 10 of the National Auxiliary Service Law. (R. G. B. 1, p. 1410.)

In pursuance of article 19 of the law on the national auxiliary service, of December 5, 1916, the Federal Council, with the consent of the committee elected by the Reichstag, has issued the following order:

ARTICLE 1. Pending the organization of the boards provided in article 9, paragraph 2, of the law their duties shall be performed with equivalent effect by temporary boards organized by the general commands according to requirements; the observance of article 10, paragraph 2, of the law is not required.

ART. 2. If for the performance of the duties of the boards designated in article 9, paragraph 2, of the law similar boards (war committees, etc.) are already in existence they may, with the consent of the general commands (in Bavaria with that of the war ministry), take the place of the temporary boards.

ART. 3. The War Office shall issue regulations for the procedure of the temporary boards.

ART. 4. This order comes into force with the day of its promulgation and on February 1, 1917, shall cease to be in force.

Order of December 21, 1916, Relating to Regulations for the Application of the Law on the National Auxiliary Service.

In pursuance of article 19 of the law on the national auxiliary service, of December 5, 1916, the Federal Council, with the consent of the committee elected by the Reichstag, has issued the following order:

ARTICLE 1. The War Office shall organize the central board provided in article 6 of the law as well as the boards to be created in pursuance of article 4, paragraph 2, article 7, paragraph 2, and article 9, paragraph 2, of the law and determine the district of their jurisdiction and their location. In Bavaria, Saxony, and Wurttemberg the war ministry conjointly with the War Office shall organize the boards and determine the district of their jurisdiction and their location.

ART. 2. At least one alternate is to be appointed for the officers and officials in the central board and in the district boards; for the employers' and workmen's representatives in the central board and the district boards alternates are to be appointed according to requirements. The provisions of the law for the appointment of regular members are also applicable to the appointment of alternates.

ART. 3. Only German citizens who are of age may be appointed as employers' and workmen's representatives in the central board and in the district boards, or as their alternates.

The following are ineligible for appointment:

(1) One who, in consequence of a sentence by a criminal court, has lost the right to hold a public office or is being prosecuted for a crime or misdemeanor which may cause the loss of this right, provided he is being held for trial.

(2) One who by judicial order has been restricted in the disposal of his estate.

ART. 4. A person appointed in accordance with article 3 as employers' or workmen's representative or as alternate of such a representative may decline acceptance of the office only—

(1) If he has completed the sixtieth year of age;

(2) If he has more than four minor legitimate children; children adopted by some other person may not be counted;

(3) If he is prevented from orderly discharge of the office by sickness or infirmities;

(4) If he holds more than one guardianship or trusteeship. Guardianship or trusteeship over several sisters or brothers is to be considered as only one guardianship or trusteeship. Two joint guardianships are to be considered as equivalent to one guardianship.

ART. 5. Whoever without valid reason declines to accept the office of employers' or workmen's representative or of alternate for such a representative may be fined up to 500 marks [\$119] by the chairman of the central board, if he has been appointed to this board, or otherwise by the chairman of the board to which he has been appointed.

Likewise whoever does not promptly attend the meetings or in other manner avoids discharge of his duties may be fined.

Appeals against such fines are finally decided by the War Office; in Bavaria, Saxony, and Wurttemberg by the war ministry.

ART. 6. Employers' and workmen's representatives in the central board and in the district boards shall hold their office as an honorary office without compensation.

They are to receive a per diem allowance of 15 marks [\$3.57] and refund of necessary traveling expenses. In case of travel by rail they are entitled to refund of second-class fare, and of first-class fare in case of travel by boat.

ART. 7. Workmen's representatives must notify their employer of each convocation to a meeting of the central board or of a district board. In case of notification without culpable delay their absence from work does not furnish a valid reason for the employer to discontinue the service relation without the observance of the time limit for giving notice.

ART. 8. Employers and their salaried employees are prohibited from restricting workmen's representatives in the acceptance and discharge of the honorary office (article 6), or from discriminating against them on account of the acceptance or mode of discharge of the honorary office.

Employers or their salaried employees contravening against this provision may be punished with a fine up to 300 marks [\$71.40] or with detention in jail.

ART. 9. The chairman and other members of the central board and of the district boards are obligated to observe official secrecy as to business, operation, and trade secrets which come to their knowledge in the discharge of their office.

Whoever in contravention of paragraph 1 without authorization divulges a secret shall be punished with a fine up to 3,000 marks [\$714] or with imprisonment up to three months.

Whoever does so with the intention of injuring the owner of a business or establishment or a person exercising an occupation or of procuring a pecuniary advantage for himself or some other party, or whoever with like intent utilizes a secret of the kind designated in paragraph 1 shall be punished with imprisonment up to one year, or with a fine up to 10,000 marks [\$2,380], or with either of them.

Prosecution shall take place only on demand.

ART. 10. Authorities and institutions of authorities are obligated to comply with requests made to them by the War Office, the central board, and the district boards in the application of the national auxiliary service law.

The same applies to requests made by the war ministries of Bavaria, Saxony, and Wurttemberg in the application of the law.

ART. 11. Before rendering a decision in pursuance of article 4, paragraph 2, of the law the board shall consult the communal authorities and, according to the nature of the case, also the competent official representatives of industry and commerce, of the handicrafts, of agriculture, or of other occupational classes. Trade associations and other unofficial economic associations may also be consulted in suitable cases. If the decision relates to naval interests, a naval officer or official shall on request of the Imperial Navy Office be consulted.

ART. 12. Fines imposed in pursuance of article 5 shall be collected like communal taxes. Appeals against fines act as a supersedeas. Legal notice must precede any action for enforced collection of the fine. The fee for the legal notice shall be determined by the War Office; in Bavaria, Saxony, and Wurttemberg by the war ministry, and be collected in the same manner as the fine.

All fines accrue to the Imperial treasury.

ART. 13. The order becomes effective on the day of its promulgation.

*Order of the Federal Council of January 30, 1917, Relating to Regulations for the Application of the Law on the National Auxiliary Service.*¹

ARTICLE 1. If the service relation of a person subject to auxiliary service is discontinued by the employer or with his consent, the latter must issue to the former a leaving certificate.

ART. 2. If a person subject to auxiliary service to whom the issuance of a leaving certificate has been refused has failed to complain to the board in accordance with article 9, paragraph 2, of the law, he may nevertheless request written information from the board as to whether the establishment of his former employer or the organization by which he was employed are operated in the interest of the auxiliary service in the meaning of article 2 of the law. This information shall be given by the chairman of the board unless he has charged some one else with it.

If the information furnished states that the establishment of the former employer or the organization in which the person subject to auxiliary service was last employed is not operated in the meaning of article 2 of the law, the person subject to auxiliary service may be given other employment.

Such information does not prejudice a decision rendered in pursuance of article 4, paragraph 2, and article 6 of the law.

A copy of the information given must be transmitted to the former employer and to the competent local office of the War Office.

ART. 3. Every employer refusing the issuance of a leaving certificate requested by an employee subject to auxiliary service shall be obligated to continue him in employment at working conditions not less favorable than before.

ART. 4. A person subject to auxiliary service, who has availed himself of his right of appeal in pursuance of article 9, paragraph 2, of the law, must continue his service relation until his appeal has been decided, unless the circumstances of the case are such that he can not be expected to do so. The chairman of the board shall on request of the employer or employee decide whether such circumstances exist.

ART. 5. The leaving certificate must show the name or title of the employer or organization as well as the locality, street, and street number of the working place in which the person subject to auxiliary service was last employed and the duration of his last employment.

The leaving certificate must be issued on a separate sheet apart from other working papers of the person subject to auxiliary service.

On entrance into a new service relation the new employer must take up the leaving certificate of the person subject to auxiliary service.

¹ Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands, vol. 27, No. 7, Berlin, Feb. 17, 1917.

The provisions of paragraphs 1 to 3 are also applicable to certificates issued in pursuance of article 9, paragraph 2, of the law.

ART. 6. Certificates issued in pursuance of article 9 of the law and of article 1 of the present order are exempt from stamp taxes. The same is applicable to written information furnished in pursuance of article 2 of the present order.

ART. 7. The procedure before the central board of the War Office, before the district boards formed in pursuance of article 4, paragraph 2, article 7, paragraph 2, and article 9, paragraph 2, and before the chairman of these boards shall be free of fees or stamp taxes.

ART. 8. The provisions of the law on civil court procedure shall be applicable to the obligation of issuing a certificate or of rendering an opinion.

ART. 9. The chairman of the central board or of a district board may impose fines up to 100 marks [\$23.80] on witnesses or experts who without sufficient reason fail to appear or do not appear in time or without legal excuse refuse to testify.

Likewise he may impose fines upon interested parties who without sufficient reason fail to appear or who do not appear in time at an oral hearing at which they were ordered to appear in person.

In appeals against the determination of fines imposed in pursuance of paragraphs 1 and 2 the decision of the central board or of the district board shall be final.

ART. 10. The central board and the district boards are authorized to request the local courts to examine witnesses and experts under oath.

ART. 11. A person subject to auxiliary service who after receipt of a special written order (art. 7, par. 2, sentence 2, of the law) has obtained employment in one of the occupations designated in article 2 of the law must immediately notify of this fact the board who issued the order and state the name of his employer and the nature of his employment. The employer must attest the correctness of these statements by his signature.

If the person subject to auxiliary service fails to notify the board, the chairman of the board may impose on him a fine up to 20 marks [\$4.76], provided the special order gave notice of such fine.

The special order shall be accompanied by a printed form suitable for mailing, in which the notification prescribed in paragraph 1 may be filled in.

ART. 12. The provisions of article 12 of the order of December 21, 1916, relating to regulations for the application of the law on the national auxiliary service shall be applicable to the collection and disposal of fines imposed in pursuance of articles 9 and 11.

ART. 13. Employers and their representatives are prohibited to prevent workmen and employees subject to the law on insurance of salaried employees from exercising their right to vote in elections for workmen's or salaried employees' committees provided in article 11, paragraphs 2 and 3 of the law or to restrict them in the acceptance or exercise of the duties of membership in such a committee or to discriminate against them on account of the acceptance or mode of exercise of such membership duties.

Employers or their representatives who contravene against this provision may be punished with a fine up to 300 marks [\$71.40] or with detention in a jail.

ART. 14. This order becomes effective on the day of its promulgation.

Order of the War Office of January 30, 1917, relating to regulations for the procedure of the boards created in pursuance of the auxiliary service law.¹

The following regulations are issued in pursuance of article 10 of the law on the national auxiliary service of December 5, 1916 (R. G. B. 1, p. 1333):

ARTICLE 1. The competence of the boards shall be determined as follows:

1. In cases coming within the provisions of article 4, paragraph 2 of the law, that board (determination board) shall be competent in whose district the occupation is exercised or the organization or the establishment or branches of the latter are located.

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*, vol. 27, No. 7. Berlin, Feb. 17, 1917.

2. In cases coming within the provisions of article 7, paragraph 2 of the law, that board (conscription board) shall be competent in whose district the person subject to auxiliary service is residing or sojourning.

3. In cases coming within the provisions of article 9, paragraph 2 of the law, that board (arbitration board) shall be competent in whose district the undertaking is located in which the person subject to auxiliary service exercises or has exercised the occupation on which the appeal is based, and, if this occupation is or has been exercised in a locality outside of this district, also that board in whose district the locality is situated.

With respect to localities outside of the German Empire the chairman of the central board may determine what board is the competent board.

ART. 2. If the competence of a board can not be established through the provisions of article 1 the chairman of the central board shall determine what board is the competent board.

ART. 3. If the chairman of the board appealed to does not consider the board competent he shall transmit the matter to a board which he considers competent. If the chairman of this board also considers the board not competent to act in the matter the chairman of the central board shall designate the competent board.

ART. 4. If several competent boards are appealed to on the same matter and can not agree as to a decision the chairman of the central board shall designate the competent board.

ART. 5. Decisions and orders do not become ineffective for the reason that they have emanated from a board locally not competent.

ART. 6. Before entering upon the performance of their duties members of the district boards and of the central board shall by handshake be pledged by the chairman to nonpartisan and conscientious exercise of their office and to secrecy (art. 9, par. 1, of the order of Dec. 21, 1916, relating to regulations for the application of the law on the national auxiliary service).

ART. 7. Chairmen and members of boards may be challenged for prejudice if facts are known which justify distrust in their impartiality.

Motions in this respect shall, however, be immediately rejected if it is evident that they are made for purposes of obstruction.

Challenges of members of a board shall be decided by the board after a hearing of the challenged member who shall not have a vote in the decision. In case of equality of votes his alternate shall participate in the voting.

ART. 8. The transmittal of orders in pursuance of article 7, paragraphs 2 and 3, of the law, and of decisions shall be effected through registered letter or signed receipt shall be taken on delivery.

ART. 9. Orders or decisions designated for noncommissioned officers or privates in active service of the army or navy shall be transmitted to the chief of their immediate command.

ART. 10. Transmittal to localities outside of the German Empire is to be effected through the intervention of the War Office.

ART. 11. Transmittal of orders and decisions to persons belonging to a mobile unit of the army or to the crew of a war ship in active service may be effected through the intervention of the proper military authorities.

ART. 12. The chairman shall so prepare the procedure as to make possible a speedy decision by the district board or central board. He may make investigations of all kinds, and in particular obtain official information, declarations in writing, and expert opinions; order the submission of business books and other documents; and have interested parties, witnesses, and experts examined either by the district board or central board or by authorities requested to examine them. No oath may be administered to persons examined.

With the exception of cases coming under article 34, paragraph 2, the chairman of the arbitration board must bring appeals before the board within one week after they have been entered unless an agreement has been reached sooner or the appeal has been withdrawn.

ART. 13. If on the basis of the evidence on hand the district board or the central board does not consider a case ready for decision they shall decide which of the measures designated in article 12 shall be taken.

ART. 14. Decisions may be rendered by the district boards or the central board without oral procedure.

Oral procedure shall as a rule be adopted by arbitration boards. Leaving certificates may be issued only after notification of the employer of the appeal.

If the chairman has not ordered oral procedure the district board or the central board may, with two-thirds majority, decide that oral procedure shall take place.

ART. 15. If oral procedure has been ordered, a decision may be rendered even if persons summoned to the procedure have failed to appear.

ART. 16. The proceedings before determination and conscription boards and before the central board shall be secret.

The proceedings before the arbitration board shall be public unless the board for important reasons decides that the public shall be excluded. In the interests of the national defense the War Office may order that in individual districts the proceedings shall generally be secret.

The chairman may in all cases grant admission to the proceedings to individual persons.

ART. 17. The district boards and the central board are authorized to examine witnesses and experts without administration of an oath.

If sworn testimony seems required in order to obtain truthful testimony the local court of lowest instance (*Amtsgericht*) shall be requested to take testimony under oath.

ART. 18. In proceedings before the determination and conscription boards and before the central board, the district board or the central board shall, according to the circumstances, decide whether a witness or expert may refuse his testimony or expert opinion whereby family relations and existing personal interest of the witness or expert in the decision to be rendered shall particularly be considered. The provision of article 8 of the order of January 30, 1917, relating to regulations for the application of the law on the national auxiliary service shall be applicable to the procedure before arbitration boards.

ART. 19. In the summoning of witnesses and experts the consequences of their nonappearance (art. 9 of the order of January 30, 1917, relating to regulations for the application of the law on the national auxiliary service) shall be pointed out to them.

The summoning of noncommissioned persons in the active service of the army or navy shall be effected through the intervention of the military authorities.

ART. 20. The provision of article 7 shall be applicable to the challenge of expert testimony.

ART. 21. Witnesses and experts shall receive fees in accordance with the law on fees for witnesses and experts (R. G. B. 1, 1898, p. 689, and 1914, p. 214.)

ART. 22. Interested parties may during any part of the procedure make use of the services of legal counsel, and in so far as they are not ordered to appear in person may send a representative provided with a written power of attorney. Legal counsel and representatives, through decision of the board, may be barred from the procedure if they excessively hinder the procedure through obstructive demeanor.

ART. 23. The appearance in person of interested parties may be ordered. Article 19 shall be applicable to their summoning.

ART. 24. The district board or the central board shall determine whether minutes of the procedure, particularly of the testimony of interested parties, witnesses, and experts, shall be kept.

ART. 25. Decisions of the district board or central board rendered in pursuance of article 4, paragraph 2, article 6, and article 7, paragraph 4, of the law which are to be enforced by the chairman must be rendered in writing and contain:

1. The designation of the board;
2. The names of the chairman and of the members participating in the decision; and
3. A brief summary of the case and of the reasons for the decision. The summary of the case and of the reasons for the decision may be omitted if the complainant or appellant waive their incorporation in the decision.

Decisions not pronounced in oral procedure shall be transmitted to the appellant and according to the judgment of the district board or central board, also to other interested parties. Decisions of fundamental importance shall be communicated to the War Office.

ART. 26. Appeals in pursuance of article 6 and article 7, paragraph 4, of the law shall be submitted in writing to that board whose decision is being contested. The board may, if this seems necessary, make further investigations and is authorized to act on the appeal.

ART. 27. Determination boards become active on order of the War Office or on written request of an interested party. Those persons shall be considered as interested parties who are directly interested in the determination to be made by the board.

ART. 28. In cases to which sentence 1 of article 6 of the law relates the person who requested a decision, the owner of the establishment, the organization, and also the chairman of the board, if he considers it necessary in the interest of the public, may appeal against the decision.

ART. 29. Conscription and arbitration boards shall be bound by the decisions rendered for their district by the determination boards and by the central board.

ART. 30. If a person subject to auxiliary service, who has not been conscripted by special order of a conscription board, leaves his employment in contravention of his existing contractual obligations in order to enter the auxiliary service, his former employer may invoke the intervention of the chairman of the competent conscription board for the purpose of maintenance of the service relation.

ART. 31. The person subject to auxiliary service or his former employer may file an objection against the special written order with that board which issued the order.

Unless the interests of the auxiliary service outweigh all other considerations this order is to be rescinded if discontinuance of the former service relation would cause excessive damages. Under similar conditions the time limit set by article 7, paragraph 3, of the law may be extended. In such a case the chairman of the board is authorized to issue a preliminary decision. This preliminary decision may be appealed to the board which shall be pointed out in the preliminary decision.

ART. 32. The assignment to an occupation may be appealed by the person subject to auxiliary service as well as by his last employer.

ART. 33. Only the complainant and the employer against whom the complaint is directed are to be considered as interested parties in the procedure before arbitration boards.

ART. 34. If an arbitration board does not consider necessary the issuance of a leaving certificate in pursuance of article 9, paragraph 1, of the law, because the employment discontinued by the appellant does not come within the provisions of article 2 of the law, the board shall issue an attest certifying exemption from the obligation of obtaining a leaving certificate.

This attest may be issued by the chairman of the board immediately after receipt of the appeal. Appeal to the board against such action shall not be permissible.

ART. 35. In the case of persons released from military service for auxiliary service the arbitration board shall on the request of military authorities determine the reasons

for the discontinuance of the service relation, also in such cases which have not been brought before the board in pursuance of article 9, paragraph 2, of the law.

In such cases the board may propose to assign the person released from military service to another establishment.

ART. 36. These regulations shall come into force on the day of their promulgation.

Order of the War Office of January 27, 1917, Relating to the Formation and Effectiveness of Arbitration Boards.¹

1. The arbitration boards prescribed by article 9, paragraph 2, of the law on the national auxiliary service have been formed, and beginning with February 1, 1917, take the place of the temporary boards created by the general commands in pursuance of the transitory regulations of December 21, 1917, issued by the Federal Council which, after January 31, 1917, legally cease their functions.

2. The headquarters and composition of the newly formed boards may be ascertained from a list transmitted to the local branch offices of the War Office, which contains the names of the chairmen and permanent members of the boards. The appointment of the chairman and permanent members has been effected directly by the War Office.

3. The War Office herewith charges the chairmen of the arbitration boards as their representatives with the appointment of the nonpermanent members of these boards. In this connection it is ordered that in all cases in which a member of one of the so-called nonmilitant (*wirtschaftsfriedliche*) workmen's organizations comes before the arbitration board a representative of the same organization shall as a nonpermanent member of the board take part in the procedure of the board. It is left to the workman in question to notify in due time the chairman of the board of his membership in such an organization and to request the appointment of a representative of this organization as member of the board. If unorganized workmen come before the board, unorganized workmen may be appointed to the board as nonpermanent members.

According to the law the nonpermanent member representing the employers as well as the employees shall be appointed from that occupational group to which the interested employee subject to auxiliary service belongs. The chairmen of boards shall for this purpose request the permanent representatives of the employers and employees in the arbitration boards to make proposals for the appointment of nonpermanent members from the individual occupational groups. If such proposals are not made by the permanent members, the occupational organizations of employers and employees within the district of these members, or, if a special organization does not exist in their district, the organizations of the nearest large district shall be requested to make proposals.

Since disputes relating to a large number of different occupations will come before the arbitration boards, it is desirable that the calendar of hearings before the boards be arranged by occupational groups. This would avoid the unnecessary and costly calling in of large numbers of nonpermanent members for every session.

Rules Governing the Cooperation of Employment Offices with the National Auxiliary Service, Issued by the War Office on January 29, 1917.²

GENERAL RULES.

I. The organization of the employment offices for the auxiliary service shall cover all male persons 17 to 60 years of age who are not in active service with the armed forces.

¹ Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands, vol. 27, No. 7. Berlin, Feb. 17, 1917.

² Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands, vol. 27, No. 6. Berlin, Feb. 10, 1917.

II. The following three large groups shall be distinguished in the employment offices for the auxiliary service:

1. Those male persons who wish to engage in an occupation through which a military person will be released for active military service.
2. Those male persons who wish to engage in an occupation in a war industry.
3. All female persons who, although not subject to the auxiliary service law, wish to make themselves useful in a like manner as the persons designated under 1 and 2.

III. The procuring of employment shall, as far as possible, be effected in the hitherto usual manner. Any unnecessary reorganization and the additional expenditures of money and energy connected therewith shall therefore be avoided. The organization of the employment offices shall be governed by simplicity, rigor, and close cooperation.

IV. In organizing the employment offices it shall from the outset be considered that although it is intended that the national auxiliary service shall be recruited through voluntary registration, provision shall also be made for the possibility of compulsory conscription of labor, so that reorganization shall not be necessary in case of such an emergency.

V. The organization shall be effected uniformly for all the three groups designated above.

The basis of such organization is given by the following three facts:

1. That the employment offices (particularly for industrial workers) have been centralized by the creation of central information bureaus in all corps districts.
2. That the mercantile and technical employees have combined for the purpose of common employment bureaus and have put their employment bureaus at the disposal of the branches of the War Office, explicitly declaring their affiliation with the central information bureau.
3. That the female federations have declared themselves ready to adopt a like procedure.

VI. Accordingly the employment service, through the employment bureaus, embraces all persons of both sexes, inclusive of so-called metal workers, who are seeking employment with a view of releasing a military person for active military service or of working in an industrial or agricultural establishment operated in the interests of the national defense.

ORGANIZATION.

I. The local branch of the War Office is charged with the direction of the entire employment service within the corps district, and the central information bureau is charged with the direction of the executive work of the employment service.

II. The direct procuring of employment shall be effected through all classes of existing employment offices.

III. The registration offices for the auxiliary service, together with the affiliated registration offices for women are to form a new branch of the employment service. The following distinctions shall be made with respect to these registration offices:

(a) *Localities with several employment offices.*—In such localities the branch office of the War Office shall, after a hearing and agreement of all interested employment offices, designate the most suitable employment office as registration office for the auxiliary service. If the employment offices can not reach an agreement, the branch office of the War Office shall, by an order, designate the public employment office as the registration office of the auxiliary service. Several registration offices will be required in large cities. It seems desirable that the numerous employment offices of like character existing in large cities be induced to combine into one trade employment office for the duration of the effectiveness of the auxiliary service law.

(b) *Localities with only one employment office.*—In such localities this employment office shall be designated as registration office for the auxiliary service unless the employment office in question is too unimportant or is unreliable.

(c) *Localities with no employment office or with an unreliable employment office.*—For such localities it is recommended that a registration office be established in connection with the communal or State authorities.

The territorial sphere of activity of the individual registration offices shall be determined by the branch offices of the War Office in agreement with the interested employment services.

IV. The procuring of employment.

1. *Application for employment.*—(a) Each person in quest of employment shall apply to that employment office which seems most suitable to him.

(b) Whoever has no connection with or preference for any special employment office shall file his application for employment with a registration office for the auxiliary service.

These applications shall be made in writing. It is left to the branch offices of the War Office whether they will issue special forms for this purpose.

(c) Whoever applies for a military situation shall exclusively file his application with the registration office for the auxiliary service.

In the proclamations to be issued it shall be pointed out to applicants that as a rule they should file an application only with one office. If, as an exception, they wish to file simultaneously an application elsewhere, they shall be obligated to state so in their applications, so that duplication in enumeration and in sending applicants to vacancies may be avoided.

2. *Vacancies.*—Notification of vacant situations shall be made in a manner corresponding to that prescribed for the filing of applications for employment, either to the suitable or competent employment office or to the registration office, or, in case of military vacancies, to the registration office exclusively.

V. Interchange of applications and vacancies among the employment offices.

(a) The employment offices shall extensively interchange applications and notifications of vacancies.

(b) Applications and vacancies left over after such interchange shall be transmitted to the registration office for the auxiliary service.

(c) Applications and vacancies which can not be disposed of by the registration offices shall be transmitted by the latter to the central information bureaus.

(d) The central information bureaus shall transmit through the branch office of the War Office to the War Labor Office such applications and vacancies which they can not dispose of through their own efforts or through transmission to a suitable employment office.

VI. Vocational guidance.

A division for vocational guidance shall be established at each registration office for those persons who wish to engage in a new occupation. Persons living in localities with only one employment office, in which the creation of a division for vocational guidance would be difficult on account of lack of suitable experts, or for other reasons, may obtain vocational guidance in some other near-by established division for vocational guidance. In most instances it will only be possible to give vocational guidance orally.

VII. The organization of the employment service shall be effected at the earliest possible date. Wherever employment offices of a different character exist, which have been operated satisfactorily, care should be taken that their transformation for the purposes of the auxiliary service be effected gradually without any violent changes. The essential thing is that the procuring of employment be effected rapidly and without derangement, and not the scheme employed in effecting it. Brief reports as to

the state of the organization shall be made to the war labor office not later than February 15.

Appendix.—This uniform organization shall for the present be limited as follows:

The release of military persons through the employment of persons subject to auxiliary service must be effected immediately and is already going on. The organization of the system of employment offices for purposes of the auxiliary service, however, has not yet been carried out. For this reason an order of the War Office of January 9, 1917, has decreed that all applications for employment of persons subject to auxiliary service who come under group 1 shall be made directly to the establishments having vacancies to fill. This procedure shall be observed until the organization of the employment offices in the individual corps districts has been fully perfected. The corresponding branch offices of the War Office shall independently determine this point of time.

WAR LABOR CONFERENCE BOARD.

In the February, 1918, issue of the MONTHLY REVIEW (pp. 77 to 81) there appeared a brief account of the effort being made to secure uniformity in the Federal labor policy, based upon centralization under the Secretary of Labor, as labor administrator, of all agencies for the provision, distribution, housing, and other care of workmen in war industries. Mention was made of the appointment, on January 16, of an advisory council with ex-Gov. John Lind, of Minnesota, as chairman, to assist the Secretary of Labor in the administration of a national labor program. On January 28 an outline of a scheme of organization was submitted by the advisory council to the Secretary of Labor for approval, and the agencies of administration and plan of organization as suggested are noted in full in the article to which reference has been made.

At the time of his approval of this labor administration program the Secretary of Labor called upon the managing director of the National Industrial Conference Board, a federation of employers throughout the country, and the president of the American Federation of Labor to suggest five representatives, respectively, of employers and employees, who should constitute a war labor conference board for the purpose of reaching agreements upon principles and policies which should govern their relations. The appointment of this board, which was subsequently made, is an effort to bring employers and employed to a fuller appreciation of their mutual interests and to stimulate in each a conviction that prejudice and bitterness must give way to harmony of action and cooperation of effort in the common task of winning the war.

The questions to be considered by this conference board of employers and union leaders cover practically the entire range of subjects which have been the basis of disputes or controversies between employers and their workmen, and it is the purpose of the board to arrive at some kind of a definite understanding or agreement that

will have the effect greatly to reduce, if not altogether to obviate, serious misunderstandings which have heretofore engaged the attention of capital and labor. Among the questions to be considered are: Basis for wage determination; strikes and lockouts; piecework prices and price fixing; method of eliminating improper restrictions on output of war materials from whatever cause; practice to govern dilution of labor; discrimination against union and nonunion men; admission of union agents to plants; method of promptly adjusting disputes at their source through boards containing equal representation of employers and employees; right of workmen to organize.

Aside from the five representatives each of employers and employees, the board includes two representatives of the public who act alternately as chairmen. These are Hon. William Howard Taft, ex-President of the United States, and Frank P. Walsh, ex-chairman of the United States Commission on Industrial Relations. The other members of the board are as follows, the first five representing employers, and the second five representing employees:

L. F. Loree, New York City, president of the Delaware & Hudson Railroad Co.; chairman of the board and executive committee of the Kansas City Southern Railroad Co.; president of the Hudson Coal Co., Northern Iron & Coal Co., Schuylkill Coal & Iron Co., etc.

C. Edwin Michael, Roanoke, Va., president of the Virginia Bridge & Iron Co.

Loyall A. Osborne, New York City, vice president of the Westinghouse Electric & Manufacturing Co.; chairman of the executive committee of the National Industrial Conference Board.

W. H. Van Dervoort, East Moline, Ill., president of Root & Van Dervoort Engineering Co.

B. L. Worden, New York, vice president of the Submarine Boat Corporation.

Frank J. Hayes, Indianapolis, Ind., president of the United Mine Workers of America.

William L. Hutcheson, Indianapolis, Ind., president of the United Brotherhood of Carpenters and Joiners of America.

William H. Johnston, Washington, D. C., president of the International Association of Machinists.

Victor A. Olander, Chicago, Ill., representative, International Seamen's Union of America.

T. A. Rickert, Chicago, Ill., president of the United Garment Workers of America.

The appointment of this conference board is one of the developments of the deliberations of the advisory council of the Department of Labor. When the first meeting of the conference was called by the Secretary of Labor, John Lind, chairman of the advisory council, made the following statement regarding its work:

To-morrow's conference may easily prove one of the most significant developments in the history of America's participation in the war. In a sense, it is unprecedented in American industrial history.

For the past 10 months employers and employees alike have given evidence of their whole-souled willingness to devote themselves to the national cause. Yet, in spite of the most laudable intentions and the earnest effort of individuals on both sides,

there has seemed at times to be a lack of interrelation between the two great groups on whose work must depend the success of production—production which constitutes the very essence of success in a war which is above all else an industrial war. Misunderstandings and bad teamwork have perhaps inevitably shown themselves at times.

To accommodate the basic differences between the two groups and unite industry as one behind the war program is the real purpose behind the conference which begins to-morrow. If the purpose of the meeting is to be achieved—and the Nation can not afford to have it fail at this critical time—both sides must enter the conference room in a spirit of sympathy and mutual concession for America's welfare. Both sides must stand ready to sacrifice preconceived ideas based on past prejudice and bitterness for the supreme purpose of the preservation of the Nation.

Just what form the understanding will take or what solutions of the knotty problems at issue will be reached is for the conference to discover. All that they should remember is that the Nation's interest at this time is higher than the interest of any group and that the Nation is looking on. The problem of man power is the problem which the nations of the world are facing. It is for the members of this conference to decide whether this meeting may prove the turning point of the war and perhaps even the resolution of a crisis in America's history.

INDUSTRIAL AND AGRICULTURAL LABOR AND THE NEXT ARMY DRAFT.

In view of the fear which has been expressed in some quarters that industry, and especially agriculture, will be considerably disturbed by an excessive and indiscriminate withdrawal of men for Army service in the next draft, the War Department has recently issued a statement bearing upon the matter. After indicating in the first place that the men will be drawn from civil life only as fast as they can be assimilated by the Army, and that based on a total of 800,000 to be called, each State will be apportioned its quota from time to time, so that comparatively few will be required at any one time, the department announces the following policy as affecting industrial and agricultural labor:¹

There are difficulties confronting the Nation in the supply of labor appurtenant to agriculture. Class 1, from which new levies are to be withdrawn, will contain many more men than are at present required for the Army. It would be a most unscientific and fatuous step if the men in class 1 were called indiscriminately without regard to the labor situation in agriculture. Therefore, the local boards will be directed to fill their quotas in the order of liability of men in class 1 as determined by the national drawing, except that where it is shown that a registrant is completely and assiduously engaged in the planting, cultivation, or reaping of a crop, his call to the colors shall be deferred to the foot of the quota of his board as long as he continues to be so engaged.

Whenever any registrant whose call to the colors has been deferred by reason of his engagement in agriculture is shown to have been idle on the farm on which he is engaged or to have trifled with the deferment that has been accorded him, the boards will forthwith induct him into military service if his order number has been reached in the meantime. The effect of this expedient is to grant furloughs from service prior to actual call to the colors to the men so greatly needed in the production of this year's crop.

¹ Official Bulletin, Mar. 12, 1918.

This is not, however, the only expedient that is to be adopted to conserve the supply of labor appurtenant to agriculture and to mobilize all means for increasing the harvest for the agricultural season of 1918.

There is now pending before Congress a bill authorizing the Secretary of War to grant furloughs, with or without pay, to men in the Army to enable them to engage in industrial and agricultural pursuits. The purpose of this bill is to relieve serious situations in particular instances in which men who are the mainstay of farms have been inducted into the service either through voluntary enlistment or selection and whose services during the present emergency in agriculture are needed. These furloughs will be granted after consideration of the circumstances of the individual case in which they arise and when the military situation is such that they can be granted without too great disruption and disorganization of the Army or of any particular organization of the Army.

As to further means to protect agriculture, a new regulation has been promulgated authorizing agricultural students in their senior year in land-grant colleges to enlist in the Enlisted Reserve Corps of the Quartermaster's Department; provided their class standing is such as to place them in the upper third of their class. By this means it will be possible to defer the draft call of such young men in order to enable them to perfect themselves as agriculturists and thereafter to protect them in such services as it may seem that they should perform in the best interests of the Nation.

The whole industrial and agricultural situation is being subjected to a very comprehensive study in order to discover any means that may be taken to protect and augment the labor supply appurtenant to industry and agriculture without precluding the prompt and orderly progress of our military plans. It is confidently believed that great progress can be made along this line and that more effective measures than any yet devised can be put into operation to attain the desired end.

It must be emphasized that this is a war of mechanics. The need of the several armed forces for men highly skilled in technical and mechanical pursuits is greater than in any former war. Yet this need for specially skilled men finds the Nation under a necessity for increasing its production in almost every line of industry. Withdrawals of men from industry must be made, and these withdrawals must take men who might otherwise be deferred on account of their special qualifications and skill. The necessary numbers of such skilled men will be obtained in one of three ways.

First, men already in the military service who have such special skill will be taken from the line regiments and assigned to the staff organizations and departments where their skill is needed. Second, men classified by the selection boards, even though they may have been placed in a deferred classification, will be withdrawn with great care and particularity from the industries of the Nation for special service in staff corps and departments. Third, young men of draft age with certain educational qualifications will be inducted into the service and sent to universities, colleges, and technical and secondary schools to be instructed in technical arts until they have acquired such proficiency as will justify their assignment to the special units that are being organized in considerable numbers.

In accordance with this plan the Provost Marshal General has already called upon the States for some 10,000 skilled artisans and will shortly call upon the States for 10,000 young men, graduates of grammar schools, who will be sent before the 1st of April to various technical and other schools throughout the United States for a two months' course of training. Regularly thereafter an increasing stream of selected men will be sent through educational and other training institutions for this purpose.

To sum up, it may be said that there will be no sudden withdrawal of great numbers of men from the ranks of industry and agriculture during the coming summer, but that men will be drawn in relatively small groups throughout the year in such a way as to

create the least possible interference with industry and agriculture. Men in deferred classes as well as men in class 1 will be selected in small numbers either on account of their special technical qualifications or for the purpose of sending them to schools where they will be given an opportunity to acquire such qualifications.

In this connection Secretary Houston, of the Department of Agriculture, has issued a statement outlining the part each city may take in solving the farm-labor problem. The statement is as follows:¹

Some time ago I issued a statement concerning the farm-labor problem. It was pointed out that there will be farm-labor difficulties to overcome this year as last and that in certain sections, especially in the neighborhood of large industrial centers, the difficulties will be acute. The lines of effort were indicated along which the Departments of Agriculture and Labor, through representatives in various States cooperating with the agricultural colleges and other agencies, are working to furnish assistance.

Briefly restated, these agencies are doing the following things: (a) Making a survey of the farm-labor situation in each community with a view to discover possible surpluses of labor in order to be ready to assist in furnishing labor wherever it is needed; (b) assisting again in shifting labor from community to community and from State to State as in past years; (c) promoting fuller cooperation among farmers in the same community; (d) making available, so far as possible, high-school boys in rural districts who have had experience in farming and who are not normally, regularly, or fully employed in farming operations; (e) making every effort to see that there is no obstacle in the way of the production of a larger supply of farm machinery and its fuller use as a supplement to hand labor.

Last year, in spite of all the difficulties, the farmers planted the largest acreages in the history of the Nation, harvested record crops of most important things except wheat, and succeeded in greatly increasing the number of live stock. Since last year skilled farm labor has been given deferred classification and the Secretary of War has asked for power to furlough soldiers in the National Army if their training permits, so that they may return to their farms and assist.

It is believed that the farmers of the Nation can, by effective organization and cooperation, with such assistance as can be furnished, again overcome labor difficulties and produce large quantities of foods, foodstuffs, and live stock.

There is an opportunity now for urban people sympathetically and constructively to study the farm-labor situation and to render assistance. In many towns and cities there are men who have had farming experience, who are able-bodied, and who would doubtless be willing to serve the Nation in the field of agriculture at this time. Especially for the seasonal strains of planting, cultivating, and harvesting it will not be too much to ask such men to aid the farmers in the necessary undertaking of maintaining and, if possible, supplementing the food supply in order to feed the armies and to sustain the civilian population behind them. If soldiers are willing to serve in the trenches, to dig ditches, build railroads, and risk their lives, many civilians can well afford to spare a part of their time to serve in the furrows and in the harvest fields.

If it appears that the farmers of a community or region are not able to secure the necessary labor by the usual methods, then the leaders in the town or city immediately dependent upon that region should organize, establish touch with representative farm leaders, and see if they can not assist in solving the problem. In so doing they will not only aid the farmers of the Nation but they will vitally contribute to their own well-being and to that of their community.

¹ Official Bulletin for March 6, 1913.

LABOR STANDARDS IN THE MANUFACTURE OF ARMY CLOTHING.

On August 24, 1917, the Secretary of War appointed a board of control for labor standards in the manufacture of Army clothing, naming Louis E. Kirstein, of Boston, as chairman, and Mrs. Florence Kelley, general secretary of the National Consumers' League, New York, and Capt. Walter E. Kruesi, Quartermaster Corps, United States Reserves, as members. The appointment of this board, which was noted in the MONTHLY REVIEW for October, 1917 (pp. 30 to 33), was the result of a preliminary investigation which indicated that Army clothing was being manufactured in some cases under conditions which were not in accord with standards which it was believed should be maintained on all work done for the Government. Since the appointment of this board a standard form of contract has been adopted by the Quartermaster's Department, containing provisions binding contractors to maintain at least a minimum standard of wages fixed by the board and in all labor disputes to accept the board's decision as final. The tangible results of the board's activities include the transfer of the manufacture of Army uniforms from tenements to shops where sanitary standards can be enforced, and an order requiring all employers to install modern fire-prevention appliances.

The primary purpose for which the board was created having been accomplished, in the opinion of the War Department, it was announced on January 23, 1918, that "the work is now so organized that remaining activities are administrative in character and can best be done under the direct control and supervision of the Quartermaster General," and that for this reason "the board has, therefore, this day been dissolved."

In recognition of the administrative character of the work, consideration of the whole matter of labor standards has been turned over to the direct supervision of the Quartermaster General, as suggested, who has designated what is known as the administration for labor standards in the manufacture of Army clothing, with Louis E. Kirstein as administrator. The original board of control devoted its entire attention to conditions surrounding the manufacture of Army uniforms; attention has since been directed to labor standards in the manufacture of Army shirts, and the activities of the new organization will be extended to include other Army clothing.

CHANGES IN WORKING CONDITIONS AGREED TO BY RAILROAD SHOPMEN.

To assist the Government in the operation of the railroads and to meet the present emergency in the repairing of locomotives, the railroad shop employees, acting through the president of the railway

employees' department of the American Federation of Labor, and the international officers representing the machinists, boiler makers blacksmiths, carmen, sheet-metal workers, electrical workers, and apprentices and helpers, have agreed to certain changes in reference to working conditions, which were announced by the Director General of Railroads during the latter part of February, as follows:¹

1. The hours of labor in shops and roundhouses to be governed by the necessities as indicated by the general condition of equipment. At shops and roundhouses now working one shift which totals less than 70 hours per week, an increase, preferably on a 7-day basis, may be made. Where desired, working hours may be so arranged that men will be released at 4 p. m. on one day each week. Existing working agreements to govern the rate, subject to the action of the Railroad Wage Commission.

2. All apprentices who have served three years may be promoted to mechanics and paid the going rate of wages for that position. Such promoted apprentices to be given the right of practical experience on work of their respective trades to which they had not been advanced during the three-year period.

3. Helpers in their respective trades who have had five or more years' experience may be promoted to classification of mechanics, they to receive mechanics' rate and be given an opportunity to learn all branches of the trade.

The duly authorized committeeman of each trade in each shop covered by agreement shall be consulted, and mutual understanding arrived at in promoting helpers, and the ratio of helpers to be promoted, to the number of mechanics in any one trade in any one shop, shall not exceed 20 per cent.

The international officers and general chairmen of each trade on each road covered by agreements shall be furnished a complete record of the men promoted.

4. Mechanics applying for employment will not be denied such employment for any cause other than inability to perform the work; this preference rule to be in effect as long as three-year apprentices or promoted helpers are employed at mechanics' rates.

5. Where a reduction is made in the force of mechanics, promoted helpers in accordance with their seniority shall be set back first; then advanced apprentices; no mechanics to be laid off until all such promoted helpers and apprentices have been set back.

6. The promotions above referred to are to meet an emergency caused by the war, and shall cease at the close of the war.

CONDITION OF RAILROAD EMPLOYMENT DEFINED BY DIRECTOR GENERAL OF RAILROADS.

Since the Government assumed control of the railroads of the country on January 1, 1918, some misunderstanding appears to have arisen among employees of the railroads as to their status and the security of their positions, although it had been stated in general order No. 1 that all officers and employees of the transportation systems should continue their regular work on the terms of employment in effect prior to January 1. The Director General of Railroads,

¹From the Official Bulletin for February 21, 1918, p. 3.

in an effort to correct wrong impressions, issued on February 21, 1918, order No. 8, as follows:¹

To correct wrong impressions that may exist regarding the employment and conditions of labor in railway service, it is, until further order, directed that:

1. All acts of Congress to promote the safety of employees and travelers upon the railroads, including acts requiring investigation of accidents on railroads and orders of the Interstate Commerce Commission made in accordance therewith, must be fully complied with. These acts and orders refer to hours of service, safety appliances, and inspection.

Now that the railroads are in the possession and control of the Government, it would be futile to impose fines for violations of said laws and orders upon the Government; therefore it will become the duty of the Director General in the enforcement of said laws and orders to impose punishments for willful and inexcusable violations thereof upon the person or persons responsible therefor, such punishment to be determined by the facts in each case.

2. When the exigencies of the service require it, or when a sufficient number of employees in any department are not available to render the public prompt transportation service, employees will be required to work a reasonable amount of overtime. So far as efficient and economic operations will permit, excessive hours of employment will not be required of employees.

3. The broad question of wages and hours will be passed upon and reported to the Director General as promptly as possible by the present Railroad Wage Commission. Pending a disposition of these matters by the Director General, all requests of employees involving revisions of schedules or general changes in conditions affecting wages and hours, will be held in abeyance by both the managers and employees. Wages, when determined upon, will be made retroactive to January 1, 1918, and adjusted accordingly. Matters of controversy arising under interpretations of existing wage agreements and other matters not relating to wages and hours will take their usual course, and in the event of inability to reach a settlement will be referred to the Director General.

4. In Order No. 1, issued December 29, 1917, the following appeared:

"All officers, agents, and employees of such transportation systems may continue in the performance of their present regular duties, reporting to the same officers as heretofore and on the same terms of employment."

The impression seems to exist on some railroads that the said order was intended to prevent any change in the terms of employment during governmental operation. The purpose of the order was to confirm all terms of employment existing upon that date, but subject to subsequent modifications deemed advisable for the requirements of the service. Any contrary impression or construction is erroneous. Officers and employees will be governed by the construction here given.

5. No discrimination will be made in the employment, retention, or conditions of employment of employees because of membership or nonmembership in labor organizations.

¹ From the Official Bulletin for February 23, 1918.

PROVISION FOR THE DISABLED AND VOCATIONAL EDUCATION.

BY MRS. M. A. GADSBY.

VOCATIONAL EDUCATION CONFERENCE AT PHILADELPHIA.

The war is proving a remarkable impetus toward vocational education. Maximum output demands trained workers. The Government departments, as well as the manufacturers of necessary war products, are looking to vocational schools and to vocational educators to help them train men and women to fill the places of those who have gone to the front and to fill the new places which the extraordinary demands of industry are making necessary. This was the motif which prevailed throughout the meetings of the convention of the National Society for the Promotion of Industrial Education held in Philadelphia February 21 to 23, 1918.

It is impossible to give synopses of all of the papers presented at this conference. It has therefore been considered advisable to omit many of the reports dealing with the technique of training and to confine this article to a review of some of the points brought out in the reports most closely related to industry.

The program centered around four main topics, (1) Education for war industries, (2) Administration of the Smith-Hughes Act, (3) Training and employment of women, and (4) Rehabilitation of the disabled.

EDUCATION FOR WAR INDUSTRIES.

Mr. E. C. Felton, of the Pennsylvania Department of Labor and Industry, outlined the work of that department in meeting the demands for labor in two of Pennsylvania's most important war industries, namely, agriculture and shipbuilding. The problem of agricultural labor supply is a new one. The lure of short hours and high wages in the factories has resulted in 1,000 vacant farms in one county in Pennsylvania. The State is relying upon three sources of agricultural labor supply—(1) a small number of retired farmers, a register of whom is kept at the employment offices, (2) women, and (3) young men of high-school age, who are being organized as reserve workers. Farm camps for training young men are being arranged under the supervision of trained agricultural workers. To keep more closely in touch with the situation, the department has arranged

for a man familiar with agriculture and with the district to visit personally the farmers in each of the more important agricultural districts and familiarize himself with the needs of the individual farms. The State has been divided into six zones, with a central employment office in each, and suboffices in each important center in the zones. Employers apply to local offices, which, in turn, cooperate with other offices, both local and central, in satisfying the need for workers. More than 70 trades are necessary in building steel ships. Thirty-eight per cent of the ships contracted for by the Government are built in the vicinity of Pennsylvania. To meet the resulting demand for labor in the shipbuilding trades, the department, in cooperation with the Public Safety Committee, is studying trades which demand similar skill and which are less essential at this time, in order that such labor may be transferred to shipbuilding, and is arranging for short courses for these workers in the technical schools.

The Industrial Training Department of the Emergency Fleet Corporation is also training men from kindred trades and vocations that they may become valuable for shipbuilding in as short a time as possible. This work, as described by Mr. E. E. MacNary, involves the establishment of a series of training centers in the vicinity of the shipyards. The first center has been established at Newport News, Va., where a six weeks' course is given. Shipyards from different parts of the country are sending skilled craftsmen to this center, paying them wages and their necessary expenses. At the completion of the course these men return to their yards and conduct training classes in their own trades for new workers and for the trade improvement of men already in those trades. This training course involves three phases of instruction, (1) analysis and arrangement of trade operations or jobs in an instruction order, (2) how to give effective instruction, and (3) practice in instructing under conditions of actual production or construction. A plan has been arranged whereby the Emergency Fleet Corporation shares the cost of instruction with the shipyards and pays a bonus of 50 cents per day to men under instruction, provided they remain in the training center for 78 days. Yards sending men to the center have made most satisfactory reports on the progress their instructors have made as a result of their training.

The Bethlehem Steel Co. is finding its prewar methods of training inadequate to meet the present emergency. Mr. Stanley Zweibel, director of industrial education for that company, gave an account of the work of the shop school established in Bethlehem. The shop was canvassed and 60 to 70 of the more promising mechanics were gathered together to be trained as teachers. These men were taught to analyze the jobs, one operation at a time. They were then given

practice work in teaching, with each instructor in charge of four inexperienced men. By eliminating the inefficient instructors a competent teaching force is being built up.

Miss Mary Gilson, representing Joseph & Feiss Co., emphasized the necessity for training operators in as many of the main operations in the shop as possible, so that the employee may thoroughly understand the processes involved in making the shop product, and can be shifted from one department to another, if necessary.

Mr. J. P. Munroe, of the Federal Board for Vocational Education, described the war emergency vocational work of that board in undertaking schemes for training in the States and schools cooperating with the board of mechanical and technical workers for the Army, the Navy, and the Shipping Board. This work is too extensive to permit of an adequate description here. A partial account, however, may be found in the following bulletins published by the board:

Bulletin No. 2. Training conscripted men for service as radio and buzzer operators in the United States Army (International Code).

Bulletin No. 4. Mechanical and technical training for conscripted men. (Air Division, U. S. Signal Corps.)

Bulletin No. 7. Emergency war training for motor-truck drivers and chauffeurs.

Bulletin No. 8. Emergency war training for machine-shop occupations, blacksmithing, sheet-metal working, and pipe fitting.

Bulletin No. 9. Emergency war training for electricians, telephone repairmen, linemen, and cable splicers.

Bulletin No. 10. Emergency war training for gas-engine, motor car, and motorcycle repairmen.

Bulletin No. 11. Emergency war training for oxyacetylene welders.

Bulletin No. 12. Emergency war training for airplane mechanics—engine repairmen, woodworkers, riggers, and sheet-metal workers.

ADMINISTRATION OF THE SMITH-HUGHES ACT.

An afternoon and evening were devoted to discussion of the problems of administration under the Smith-Hughes Act; the necessity for coordinating the new educational machinery created by that act and the training of teachers to develop it. Mr. J. P. Munroe reviewed the provisions of the act, and the difficulties encountered by the Federal board in interpreting it. The Government contributes money for training boys and girls over 14, and of less than college age, for wage-earning employments. It will pay one-half the salary of teachers, supervisors, and directors in agriculture, in trade, in home economics, and in industry, and will pay for the training of teachers in all these subjects. This money is appropriated only upon condition that the States or local communities in which the money is to be spent contribute an equal amount for the same purpose. The amount appropriated is to increase each year until 1926. He emphasized the fact that the training must be for wage earning, according to the law,

but that the aim is to make it as broad as possible and not merely utilitarian.

The work ahead of the Federal Board for Vocational Education and the State boards was outlined by Mr. C. A. Prosser, director of the Federal board. He emphasized the necessity for State legislation subsidizing State boards and giving them power to extend the age limit for compulsory education. He also urged that the States take advantage of the Federal offer.

Mr. L. S. Hawkins, also of the Federal Board for Vocational Education, called attention to the necessity for professional, technical, and practical experience on the part of teachers, and to the need for an adequate system of practice teaching in preparing them for teaching agricultural subjects. Practice teaching, he said, should be the teacher's laboratory.

WOMEN IN INDUSTRY.

The field for industrial and trade training for women was discussed by Mrs. A. L. Burdick of the Federal Vocational Board, who spoke, as she said, "without being released for publication." The occupation for which training is offered women should have four essential characteristics. (1) It must have teachable content, i. e., it must not be "a job which just anybody can do," it must take an appreciable time to learn, and it must have a definite body of knowledge and a progression in its processes. This would exclude the processes in the candy trade, canning, etc. (2) It should not be highly seasonal. (3) It should offer prospects for wage advancement. (4) The occupation must be able to absorb a sufficient number of workers so that training does not overstock the market. As to occupations for which training should be offered, "any occupation in which there is an unquestionable shortage of labor, and in which an analysis shows that women can replace men satisfactorily, should be considered a field for war emergency training." A trade curriculum for women should include courses of instruction in the economic and social problems which affect them as wage earners and which are fundamental to the welfare and general education of the worker. This instruction should include such subjects as trade organization, trade agreements, labor legislation, and the facts relating to wages, hours of work, and the relations between employer and employees.

Mrs. Burdick formulated an "Apostle's Creed" for those interested in the welfare of women workers. The "creed" follows:

Notwithstanding the fact that the cause has been handicapped by the popular and fallacious belief of the short period of women's service in industry;

By the false standards in the mind of the worker, making her sensitive to the social aspects of her labor, and limiting her industrial advancement;

By the fact that the occupations for which women train are subject to the hectic whims of fashion and caprice and much skill is lost unnecessarily in swift adjustment,

we believe that trade and industrial education for girls and women will enable them to do better work for better pay and ultimately become more independent.

We believe that this training should result in immediate benefit to the worker either through service rendered, a higher grade product, increased production, progress in the occupation and better pay.

We believe that placement in industry is necessary to a scheme of training for trade and industrial workers.

We have corroborative evidence that trade or industrial training for the young girl with limited school expectancy lifts her over the unskilled processes that catch and hold young workers and prevents the shifting and drifting in unprofitable employment and enables her to enter industry at a higher initial wage.

We believe that continuation schools for young workers is an immediate necessity to enable girls to make an intelligent and profitable transition from child employing industries into adult employment.

We believe that vocational training for any individual or for any group can not be accomplished for once and for all by training initial to employment, but the worker must continue an opportunity for training where advancement is hampered for lack of it.

We believe that the expansion of opportunity for work for women is accompanied by a narrowing of condition which makes training possible, hence women must be prepared to enter a better class of industries.

To this end every effort should be made (1) for analysis of all possible women-employing industries for the purpose of giving the worker a chance to escape bearing the cost of casual and unorganized learning period, and (2) to open up new lines of work in which the peculiar genius and skill of women may find an outlet. We must adapt women for better trades and adapt the trades to women workers, so as to secure the best possible results. This is the need and the opportunity for vocational training, and remember the prayer of the enthusiast: "Lord, make the indifferent different."

Mrs. Hilda Muhlhauser Richards, of the Federal Employment Service, emphasized the fact that there is no shortage of male labor and consequently no reason why women should be hurried into industries in which the work is much better suited to men.

REHABILITATION OF DISABLED SOLDIERS.

One session was devoted to a discussion of the rehabilitation of disabled soldiers. The only agency which has yet been given authority to attack this problem in America is the War Risk Insurance Bureau, in the Treasury Department. The provisions of the act of September 2, 1917 "to authorize the establishment of a Bureau of War Risk Insurance," and the amending act of October 6, were outlined by Mr. Richard B. Jones, executive commissioner of the bureau. These acts provide for allotments and allowances for the families of men enlisted in the military or naval forces; compensation for death or disability of every commissioned officer and enlisted man, and of every female member of the Army and Navy Nurse Corps, when employed in active service; and insurance against death or total permanent disability for every officer, enlisted man, and nurse who desires to comply with the conditions specified in the act.

Section 304 of the act as amended, further provides:

That in cases of dismemberment, of injuries to sight or hearing, and of other injuries commonly causing permanent disability, the injured person shall follow such course or courses of rehabilitation, reeducation, and vocational training as the United States may provide or procure to be provided.

So far, this bureau has been forced to devote its attention exclusively to the compensation, allowance, and insurance features of these acts. Subsequent bills have been drafted for the consideration of Congress providing for the transfer to other governmental agencies of responsibility for the training and employment of disabled members of the forces, but as yet no definite action has been taken.

Three of the other governmental agencies interested in this work were represented at the conference. Maj. J. W. Bloom, representing the United States Army Recruiting Station, discussed the treatment of disabled soldiers from the medical point of view. Mr. C. H. Winslow of the Federal Vocational Board discussed the training of the disabled and outlined the recent studies published by the board on this aspect of the problem. These studies, issued in February, 1918, are: Bulletin No. 5, Vocational rehabilitation of disabled soldiers and sailors; Bulletin No. 6, Training of teachers for occupational therapy for the rehabilitation of disabled soldiers and sailors. Mrs. M. A. Gadsby, representing the United States Bureau of Labor Statistics, pointed out the difficulties involved in employing the disabled. The Bureau of Labor Statistics has been collecting and publishing, in its MONTHLY REVIEW, data on this subject since America first entered the war, and through its study of the problem as it has been met in other countries has become familiar with some of the difficulties which will be encountered in connection with the work of finding jobs for our disabled soldiers.

Two points were stressed by the last speaker: (1) It is necessary that the state of the general labor market be carefully watched, so that the supply of men reeducated in any particular trade does not exceed the demand for labor in that trade, and it will be necessary to work out some system of coordination between schemes of training and to study conditions which determine the demand for workers in particular trades. (2) The wage problem also presents serious difficulties. Will the disabled man always be able to earn as much as his able-bodied competitor in the trade? If the employer is asked to pay a man more than he can actually earn, will he not be tempted to protect himself by employing only the able-bodied? Less scrupulous employers might take advantage of the fact that the man who receives a pension to supplement his wages may undersell his able-bodied competitor, and pay the pensioner less than the market price for his labor.

To facilitate the solution of such problems of readjustment, England has found it advisable to set up trade advisory committees and advisory wage boards, consisting of equal numbers of employers and workmen, to consider questions as to the kind of training needed, the period of training necessary, the number of men who can be safely trained, and all questions affecting rates of wages. So far as organization for carrying on the work is concerned there are several examples in the systems of other countries. England utilizes the system of employment exchanges which had already been developed to deal with general employment problems. Canada has instituted special employment machinery to take care of this phase of the work. It consists of a central employment office, provincial employment offices, and local committees throughout the districts. The work of readjusting our military cripples to civil life is calling attention to our neglect of the victims of industrial accidents and to the necessity for extending the provisions made for the reconstruction of war cripples to meet the needs of our industrial army.

Private agencies have already begun the work of training the disabled. The Red Cross Institute for Crippled and Disabled Men, as described by Mr. D. C. McMurtrie, director of the institute, was founded early in the summer of 1917. It is concerned with vocational education of disabled men and their placement in suitable occupations. Preliminary to undertaking the work of the institute a detailed study was made of 361 civilian cripples (amputation cases) in New York City in order to determine to what extent men who have incurred such disabilities had been able to return to their former occupations or to take up new ones. A report of this investigation was published in a recent bulletin of the institute.¹ As the result of the investigation, the work of the institute is now being organized and machinery is already being installed for the use of classes for training handicapped men in the making of artificial limbs, in drafting, casting for monotype work, photography, and acetylene welding. Other classes will be added later.

The employment bureau operated in New York City by the Hudson Guild has been taken over by the institute. As in the other work of the institute only orthopedic cases are considered. Statistics are kept of the number of placements, the type of disability, the position secured, and the wages paid. Records of such placements are suggestive of possible situations for future cases.

The proceedings of this conference will be published shortly by the National Association for the Promotion of Industrial Education. The offices of this association are located at 140 West Forty-second Street, New York City.

¹ The Economic Consequences of Physical Disability: A Case Study of Civilian Cripples in New York City, by John Culbert Faries, of the Staff of the Red Cross Institute. New York, Red Cross Institute for Crippled and Disabled Men. 1918. 11 p. (Publication Ser. 1, No. 2.)

TRAINING DISABLED SOLDIERS IN CANADIAN INDUSTRIES.

An industrial survey for determining the openings for training disabled soldiers in industries was begun in Canada in the fall of 1917 by the vocational branch of the Military Hospitals Commission—Mr. Gerald A. Boate, officer in charge of the survey—and carried on for several months following. The purpose was to make a short intensive survey of typical industries and business houses to get their judgment with reference to training and employment and to determine, by time and motion study, whether or not disabled men could be there employed, instead of waiting for the men themselves to encounter difficulties on entering an industry.

The work was started in Montreal and extended to Toronto, Winnipeg, Ottawa, and Vancouver as centers, whence it was carried to other cities and towns of the Dominion.

The agents conducting the survey, who were returned officers, first familiarized themselves, in hospitals and sanatoriums, with the various disabilities and handicaps of the men. Following this step they made themselves thoroughly conversant with the equipment, courses of study, and methods of instructions of the reeducational schools.

The actual surveys were made with the assistance of the employers, who were interested and glad to cooperate and who gave freely of the time and information of foremen and other bosses.

The data from the schedules have been carefully studied, card indexed, and tabulated. The information is of great value in several ways: 1. It gives the vocational officers of the various provinces or districts an understanding of different jobs or occupations, so that from a knowledge of a man's previous experience, learned by interview, they can select an occupation within his grasp as a disabled man to which his training or experience is related. 2. It is extremely valuable to the men themselves, many of whom have had distorted ideas of the work which they would be able to do and the remuneration they might expect to receive. 3. It is supplied to the reeducational schools, affecting their selection of equipment and courses of study and helping to determine the number of men who may be trained for a particular occupation without danger of overcrowding. As far as possible the final stages of the courses are given in the industries for which the men are being trained, thus bridging the awkward gap between school and actual employment.

The survey brought out the fact that though many occupations require the services of able-bodied men there are many others in which cripples and women already are employed. From a study of a few of the schedules it is evident that a large number of occupations can be performed by persons having an artificial or deformed leg, defective hearing, or the sight of but one eye. The statement is

made that in many machine and other operations several fingers of the worker may be missing and he will be able to perform the work required, provided there are enough left to hold tools and to pick up small objects. Shell shock resulting in nothing worse than stammering or momentary muteism ordinarily need not debar, but a case is here recorded of a returned soldier who had to leave a boiler-making job after six weeks' employment on account of the noise.

The possibilities of favoring a disabled worker by allowing him to sit at his work, though the general rule is to stand, or to have material on a table though the other workers stoop for it, are given emphasis. In a considerable number of cases the inquiry as to the general education required is answered by the statement that the ability "to read, write, and keep his time" is all that is necessary.

In addition to the customary information as to firm name, address, business, officers, date of survey, etc., the questionnaire calls for data in the case of each occupation in the plants and factories visited, as to conditions of labor, training needed, physical capacity for the work of those having specified disabilities, etc.

The following selections, copied verbatim, except where identification might result, will serve to show how the questionnaire is made out and the nature of the information secured.

CAR UPHOLSTERING.

The foreman explained very carefully the nature of this work, also demonstrating its nature and possibilities. Car upholstery is quite different from furniture or automobile work. A man who has been trained as a furniture upholsterer could not work on car seats. A car trained upholsterer would not be of much use to a furniture man. However, I learned that the season for car upholstery is about seven months each year. The idle season in car upholstery is the busy season in the furniture business and most of the workmen in this department find ready employment with the furniture repair houses, making a much better wage with the furniture men in the summer than they do with the car company in the winter. The upholsterers in the car department use leather, carpet, rattan, and plush for finishing up seats and backs of first class passenger coaches and Pullman cars. After the frame of the seat is made, the springs are inserted. On the top is a double stuffing, and on top of that a stuffing of better quality of cotton, hair, or sea grass. The final process is applying a surface of leather, carpet, rattan, or plush. All of the rattan comes ready woven, glued to a backing of canvas. This material is bought by the company and is merely cut to the right sizes to make the tops, which are either tacked or sewn into place. Upholsterers are in demand by the furniture houses from May to October at about 45 cents per hour. The foreman considered this a good class of work for disabled men, providing they have full use of their arms and hands. It is light pleasant work, not requiring excessive muscular strain.

Detailed analysis of upholstery.—Upholsterers are divided into the following classes:

First class.—Twenty employed. Receive 36 cents per hour plus 25 per cent additional on bonus system. This is all piecework.

Hours per week.—Fifty.

Second class.—Ten employed. Receive 33 cents per hour. These are good men on plain work.

Third class.—Five employed. Receive 30 cents per hour plus 25 per cent additional on bonus system—piecework.

Hours per week.—Fifty. These men are able to work on curtains and cheap seats, chairs where there are no spring edges.

Nature of the job—first-class upholstery.—These men must be able to do all classes of upholstery from a common seat up to a parlor chair. This is all handwork; a very good class of work done in a quiet room amid pleasant surroundings. Most of the work is attached by means of tacks, or sewn, using long upholsterers' needles. Upholsterers are in good demand.

Training needed.—Training needed should be given in an upholstery house or car upholstery department.

Time to train.—Time to train would be four years, under union regulations, to make a first-class upholsterer. The work could be successfully learned in a much shorter time, if the workman had the opportunity of an open shop.

Work most closely related.—The work most closely related would be that of furniture or automobile upholsterer.

Experience needed.—Experience needed to make a first-class upholsterer in this shop is gained through working in the various classes from third class up to first class.

Disabilities—Lung wounds and lung diseases: The air and light are very good indeed. The work did not seem to be dusty. All articles which would contain dust have been cleaned by steam or vacuum process before they are passed over to the upholsterers to be either renovated or new upholstery applied. It is not hard work and requires but slight physical effort. Only a good, fair, steady gait of work is demanded.

Head: Ordinarily speaking the workman should have average intelligence. Faintness, dizziness, hesitant speech, or stammering will not in any way interfere with the carrying on of the work. All the work is done on one floor and no climbing is required.

Neck: Slight flexion of the neck is necessary. Most of the work is done while the head is looking down, similar to tailoring. Sometimes it is necessary to bend the head down, looking up under. This is more of a body movement than neck movement.

Ears: The workman may be entirely deaf and successfully carry on this work. However, due to the dangerous surroundings of the shops and yards, the workmen who are sent there should have sufficient hearing for personal safety.

Eyes: Average sight in one eye is ample for doing this work. Fine measurements or delicate fits are not required; merely a sense of proportion of finish which must be developed. That is, the article upholstered must be neat and tidy and appear well when done.

Shell shock: This seems to be an ideal class of work for a man who has shell shock, provided he is in condition to work.

Hernia, general debility, alimentary canal, kidneys, skin: Little physical effort is required. A man should be able to lift and turn over a chair and do sufficient pulling to get the upholstered surface taut. This is a sedentary occupation, but it is interesting and should be ideal for a man who has general debility, or minor disabilities of the alimentary canal or kidneys which are not too far developed so that they would interfere with his attendance at work.

Legs: Most of this work is done while sitting; therefore one or two artificial legs should not interfere with a man successfully making a livelihood at upholstery.

Arms: The workman must have full use of both arms, hands, and wrists, and free use of all his fingers.

CORE MAKING.

Number employed.—Eight.

Hours per week.—Fifty.

Rate of pay.—Thirty-nine cents per hour. It is possible to make 25 per cent additional, on bonus system. Cylinder core makers receive 41 cents per hour.

Nature of the job.—The core maker's job is making curious shaped biscuits, which are composed of sand, bran, and beer. This mass is mixed up like dough in a tub. All the patterns which come from the pattern making department which have curious shapes or holes, which are to be left in the inside when they are molded in the foundry, must be cored. The pattern maker, when building up his pattern, also makes the core boxes which go with the pattern. These core boxes go to the core makers. Usually they are wooden troughs. The troughs are filled with the core material and the contents of these troughs are emptied into pans which are run into core ovens and baked. This baking process turns them into a brick-like substance. Cores are usually made in two pieces. The core maker must even the surfaces which go together and bond them together with a paste after they are baked. These cores are then sent to the foundry department after they are numbered and designated. When the molder starts on his molding flask to mold up a pattern, he imbeds the pattern in molding sand, which has to be rammed down very hard, up to the parting surfaces on the pattern. All places where metal is not to flow within, the pattern surface must be filled by laying in a core. The other half of the flask is done the same way. The two parts of the flask are clamped together, leaving the core in place, before it is sent to the foundry, where hot metal is poured in. The action of the molten iron, steel, or brass further bakes the core and turns it into a very brittle substance, which is removed from the finished casting by simply pounding.

The work of the core makers is not heavy and very little education is required.

Time to train.—A man could be trained for a core maker in about six months.

Disabilities—Lung wounds and lung diseases: The lungs must be in good condition, since the foundry is more or less filled with gases.

Ears: Hearing in one ear is sufficient.

Eyes: Good use of one eye is sufficient.

Hernia: Hernia would not interfere with the carrying on of the work, provided a properly fitting truss is worn.

Legs: A man could get along with one injured or artificial leg.

Arms: It is necessary to have good use of both arms, hands, wrists, and average use of fingers.

In a great many factories this work is done by women, so that it is not very laborious.

The survey forms an important vocational study and a valuable contribution to the solving of the problem of the disabled soldier.

TRAINING OF WIDOWS OF DECEASED SOLDIERS IN GREAT BRITAIN.

In order that the widow may "add to her income where domestic needs make remunerative occupation desirable in her own interest or that of her children," provision has been made for her training along lines somewhat similar to those governing the training of soldiers disabled in the War. Article 14 of the Royal Warrant and Order in Council, dated March 29, 1917, which permits of this arrangement, reads as follows:

14. In addition to any pension and children's allowances awarded under the foregoing three articles there may be granted, under such conditions as the Minister of Pensions may determine: * * *

(3) To any widow an allowance not exceeding 12 s. 6 d. [\$3.04] per week, for a period not ordinarily exceeding 13 weeks, whilst she is undergoing any course of instruction

which, in the opinion of the Minister of Pensions, will be advantageous to her. Where an allowance is granted under this subsection any fees for training, for which provision is not otherwise made, may be paid, subject to such conditions as the Minister of Pensions may determine.

Instructions have been issued to local war-pensions committees prescribing the conditions under which such training may be provided. The following are some of the provisions outlined in these instructions. The majority of widows, namely, those receiving minimum pensions under article 11 of the above-mentioned warrant, or alternative pensions under article 13, are eligible. Application for training is made to the Minister of Pensions through the local war-pensions committee of the applicant's district. The sanction of such application is dependent upon (1) the domestic circumstances of the applicant, (2) the suitability for the applicant of the occupation for which training is proposed, (3) the prospect of permanent and remunerative employment in the occupation chosen.

Maintenance allowance for widows undergoing training, in addition to the widow's pension and allowances, is sanctioned only under certain special circumstances, such as (1) the necessity of undertaking a remunerative occupation, (2) the necessity of maintaining her home while she is undergoing training, and (3) the necessity for provision for care of child or children at cost in excess of allowances ordinarily payable for such children.

In case the widow has a child or children under 16 years of age adequate provision must be made for their care, and in case the widow is obliged to live apart from her children the local committee arranges that they shall be visited at least once a month in order to ascertain that they are properly cared for.

At the end of the first month's training a report is made to the local committee by the instructor under whom instruction is given as to progress which has been made, and a similar report is made at the end of the period of training. Although the normal training period of three months contemplated by the warrant is sufficient for the less highly skilled occupations, the period is extended if the case justifies training in an occupation of a more highly skilled or of a professional character.

A careful inquiry has been made as to suitable trades for which training can be provided. Information has been gathered from Government departments, various firms, schools, and other institutions connected with the industries concerned. This information as published in schedule form in the War Pensions Gazette for January and February, 1918, includes data as to the period of instruction necessary, the facilities offered for training, the demand for workers, and the wages current in such occupations as box making, clock and watch repairing, cookery, corset making, dental mechanics, machin-

ing and blouse making, mantle trade, maternity nursing, midwifery, general nursing, school teaching, dressmaking, and hand ironing.

Because of the facility with which women can find work under the present abnormal conditions it is stated that relatively few have taken advantage of the opportunity offered, but it is reasonable to suppose that after-war conditions will increase the demand for such opportunities.

TRAINING AND EMPLOYMENT OF DISABLED SOLDIERS AND CIVILIANS IN GERMANY.

SETTLEMENT OF DISABLED SOLDIERS ON THE LAND.

The German National Committee for the Relief of Disabled Soldiers (*Reichsausschuss der Kriegsbeschädigtenfürsorge*) has issued the following "guiding principles" for dealing with the problem of settling disabled soldiers on the land after the War:¹

THE SETTLEMENT OF DISABLED SOLDIERS AS PART OF THE GENERAL SCHEME OF INTERIOR COLONIZATION.

1. It having been suggested that settlements should be formed consisting solely of disabled soldiers and their families, the special committee for settlement and housing at its initial meeting on December 15, 1915, unanimously came to the conclusion that this plan was to be rejected, as it is one of the principles of the Disabled Soldiers' Welfare Association that every aggregation of disabled soldiers should be avoided, and this applies to land settlement, as to other things. Hence, disabled soldiers should be combined in not too large proportions with able-bodied settlers or attached individually or in small groups to existing settlements.

2. The settlement of disabled soldiers is to be viewed as a part only—though a very important part—of the general scheme of interior colonization. It can become effective only if the problem of interior colonization and urban housing is successfully handled on a large scale. It is thus to the interest of the disabled soldiers themselves that those doing welfare work in their behalf should devote all their energies to this latter object.

3. The settlement of disabled soldiers is justifiable in the first instance in their own home district, though by no means in that district only. Hence, the settlement of disabled soldiers is not a problem for this or that district, but for the Empire as a whole.

THE DISABLED SOLDIERS' FREEDOM OF CHOICE AND CLAIM TO SETTLEMENT.

1. The object of all welfare work on behalf of disabled soldiers is to make them once again active and contented members of their community, with power to shape their own careers. Therefore, the disabled soldier who decides to become a settler must do so of his own free will and not under the spell of undue influence exercised by others, as in this case he can not have the proper feeling of responsibility or a sufficiently keen interest in his place of settlement. An emphatic note of warning must be raised against an excess of zeal, which may lead to a misapplied use of the arts of persuasion on unsuitable and reluctant subjects, and which on occasion may not even shrink from the making of promises which afterwards can not be fulfilled. The resulting disappointment is harmful both to the disabled soldiers and to their advisers. The proper course is to place before them without any exaggeration both the advan-

¹ Anstellungsnachrichten. Supplement. Berlin, Oct. 15, 1917.

tages and the difficulties of settling on the land and the financial means and personal qualities which are required to make a successful settler, and thus enable them to investigate whether such a course would be profitable in their case.

2. The idea that disabled soldiers can in any way claim settlement on the land as a right must be entirely dismissed. For one thing, the number of claims would in this way be so multiplied that there would not be enough land to go round, and, apart from this, the admission of such a right on the part of the soldiers would be incompatible with the necessity which the authorities will be under of making a selection among the applicants in the interest of the disabled soldiers themselves.

SETTLEMENT AND CHARITY—GIFTS OF LAND, ETC.

1. It is highly important that the work of settlement should not be carried out in a spirit of charity. It is true that the prospect of receiving gifts may induce the disabled soldiers to make up their minds more readily. But it will not endow them with any greater energy to persist in the face of the difficulties that will inevitably arise. If the settlement of disabled soldiers is to be a success, it must be carried through on strictly business, and not on eleemosynary, principles. Besides, should the settlement attain any dimensions at all, money gifts to the soldiers would soon come to an end through the limited amount available; covetousness would be aroused, and the real or imagined injustices which would inevitably arise in the distribution of money to settlers would create discontent among them. The disabled soldier has a right to be cared for and needs no charitable donations.

2. Nor must private third parties be allowed to draw upon the charity of the public for creating settlements of disabled soldiers. If any association wishes to furnish money for this object—a highly praiseworthy endeavor in itself—it must be referred to the State colonization officials, the chief welfare organizations, or the specially appointed settlement boards (land companies, building societies, etc.), as they are in the best position to judge where and in what way the sums available can be most profitably applied.

3. Where a welfare organization is in doubt whether to accept land which is offered as a gift by the owner—for instance, a real estate company for settlement purposes—it should decide in the negative whenever the donor has the ulterior object of profitably opening up the whole of his property or getting it settled more easily by making a gift of part of it, as it is by no means desirable that the settlement of disabled soldiers should be made an instrument for enriching private property owners. If, however, no such ulterior object exists, there can be no objection to the welfare organization accepting the offer of land, nor need it be made a condition that the donor should release the organization from all charges and fees which are entailed by the transfer of the property.

PERSONAL SUITABILITY OF THE DISABLED SOLDIER AND HIS DEPENDENTS— SETTLEMENT AND OCCUPATION.

1. The most important point to consider in the settlement of disabled soldiers is their personal qualifications, understood in the widest possible sense and including the physical capabilities still retained by the soldier in spite of his disablement, the qualifications of his wife, the physique and ages of his children, the amount of his military pensions and any other pensions, the size and situation of the plat required by him, his ability to furnish cash of his own—all these points (and they do not exhaust the list) must be duly weighed and considered in each individual case.

2. The greatest caution should be exercised in transplanting to the country townsmen who have not originated there, especially if their wives have not been brought up there either.

3. The qualifications of the wife and other members of the family become important and require to be carefully examined in proportion as the working capacity of the

disabled soldier has been impaired by his injury, since the holding will be the sole means of subsistence of the family, and he will have risked money of his own to acquire it.

4. The more the money-earning capacities of the family are independent of the small holding, the more important it is to consider whether the opportunities of earning money on the settlement, as judged by the qualifications of the settler, are adequate as regards extent, variety, and prospects of permanence.

5. Disabled soldiers who are competent and willing to become settlers should as far as possible receive training for their new occupation, even if they originate in the country. For this purpose the following objects should be kept in view:

(a) Bringing together of the prospective settlers in special hospitals in groups with slightly injured men, etc., establishment of agricultural schools for invalids, where possible in connection with the rural agricultural and winter schools.

(b) Instruction in special branches, horticulture, rearing of smaller animals, bee keeping, etc.

(c) Occasional sojourn on other farms, if possible in the neighborhood of existing settlements, procuring of housing accommodations (if possible with ground attached) in settlement colonies.

6. Useful advice tending to the material benefit of the settlers should be given to them wherever possible by the officials of agricultural or horticultural organizations, agricultural teachers, etc.

7. Every encouragement should be given to home work (winter spare time work) as a supplement to agricultural work; a separate department should be set up for this in the preparatory institutions mentioned above.

8. Where home work is the chief source of income for the disabled soldier caution must be exercised. This work can be done on a large scale, and without harmful social or economic consequences, only in noncommercial garden city societies with cooperative organization (small workshops connected with long-distance power stations, consumers' cooperative societies, etc.), and under expert direction and management.

PROPAGANDA AND COOPERATION BETWEEN WELFARE SOCIETIES AND SETTLEMENT SOCIETIES.

The task of advising and assisting the disabled soldiers in the acquisition of their new means of livelihood naturally falls entirely on the welfare organizations. In the interests of the disabled soldiers, however, it would seem advisable that these organizations should seek the cooperation of bodies which have already had experience in the practical work of settlement in order to share with them the heavy responsibility involved in their task. To prevent friction, it is important that both bodies should have their sphere clearly defined. This cooperation will, of course, exhibit local diversities in the various parts of the country, but the following principles may be laid down as of general application:

1. To the chief welfare organizations will belong the task of stimulating settlement, i. e., of introducing disabled soldiers who are able and willing to become settlers to the offices which are engaged in the actual work of placing settlers, and which are, therefore, in a position to fulfill the demand for settlements.

2. On this account the chief welfare organizations must keep in close touch with the noncommercial land companies and building societies.

3. In addition to the noncommercial settlement societies and the municipalities and municipal officials who deal directly with the work of settlement there are to be considered among the organizations which promote the settlement of disabled soldiers also those purely business companies which in the matter of charges they make for settle-

ment (i. e., profit) submit themselves to the control and approval of the competent authorities.

4. The chief welfare organizations must not merely make isolated appeals to individuals, but through the agency of experts on the subject must conduct a systematic propaganda, and bring home the advantages of settlement to the disabled soldiers and their dependents. The issue involved is one of great social and economic importance, viz, to stem the flow of disabled soldiers to the large towns with their small tenements, and keep them on the land where they will be well housed. The cooperating boards can assist these endeavors by bearing part of the cost, by affording facilities for propaganda, by designating capable experts, etc.

5. For the proper conducting of propaganda, the following points are important:

(a) To centralize all propaganda work.

(b) To disseminate suitable literature among corporate bodies and administrative offices, especially such as come regularly into contact with disabled soldiers.

(c) To hold public meetings under the auspices and management of the corporate bodies mentioned under (b).

(d) To devote particular attention to the urban workers, who in some cases will be compelled in consequence of their injuries to seek a new means of livelihood.

6. The results of this campaign are to be reported, in each case, to the settlement societies cooperating with the disabled soldiers' welfare organization in the district in which the soldier in question wishes to settle; and the names of such are to be given to them.

7. The purely technical side of settlement is to be left wholly in the hands of the settlement societies, etc. The question whether any given individual is fitted to be a settler, where he is to settle, how large his holding is to be, and what capital he requires can best be decided by these societies, owing to their experience and their knowledge of local conditions and the requirements of settlement, though, of course, the welfare organizations can supply some preliminary details; and in any case, when it comes to the point, the wishes of the applicant, as stated above, are to be decisive.

8. The settlement of disabled soldiers will benefit the rural districts by bringing them an accession of trustworthy and energetic citizens. It will also further the cause of colonization in general, and help the municipalities to solve the question, which is so serious for them, of keeping people on the land. Hence there is every motive for inviting the municipalities to cooperate in the work of settling disabled soldiers.

Welfare organizations and settlement societies must therefore by united effort endeavor to secure the active support of communes and districts, and to induce them to bear a part of the labor and the expense, and to help in acquiring the land and raising the capital.

9. Hence it will be advisable for the large companies to assist in the formation of local settlement and building societies in suitable places, with the cooperation of the communes.

10. As a rule the disabled soldier, by concluding a settlement agreement with the societies, immediately secures a source of livelihood, on which alone he must rely for the future. Nevertheless, he remains subject to the disabled soldiers' welfare organization so long and in so far as his wound or sickness make this necessary and he himself expresses a desire for continued attention.

FINANCIAL ARRANGEMENTS.

1. In the purchase of a holding the combined grants or the cash possessions of the disabled soldier must in all cases form the basis of the sum required. This much is demanded by one of the first principles of settlement, viz, that the man who acquires a holding must have invested something in it, so that he shall have an interest in its

development and progress. In other words, neglect of the holding must bring with it pecuniary loss to the owner and his family, if the initial difficulties are to be overcome and the settlement to be fairly set going. This rule, of which experience has shown the necessity, naturally applies to the larger holdings more than the smaller, but should be observed strictly in dealing with the latter also, save in case of necessity, and if there is exceptionally good security. The only exception—and that is more apparent than real—is formed by holdings on more or less uncultivated soil; here the owner acquires a keen interest in the soil on account of the labor which he and his family put into it. The settlement of disabled soldiers on waste land is, however, a somewhat risky proceeding, owing to the great physical strain which is imposed in such cases.

2. For raising additional money recourse is to be had in the first place, in Prussia, to the State credit to be provided by the royal annuity banks (*Rentenbanken*) according to the law of July 7, 1891. By the law of May 8, 1916, this credit is to be advanced to the extent of three-quarters of the value of the holdings, and in the case of small holdings up to as much as nine-tenths of the value.

3. Where applicants belong to the compulsorily insured class, the resources of the invalidity insurance institutes and salaried employees' insurance institutes can be brought into play throughout the Empire. The chief welfare organizations should particularly seek to establish a connection with the former of these, which command large resources and have always made the housing of workmen their special care. A good example of how cooperation can be effected between disabled soldiers' welfare organizations, settlement societies, communes, etc., on the one hand, and provincial insurance institutes on the other, is afforded by the Province of Silesia. Should difficulties arise, it would be well that the Imperial Government should impress upon the directors of the national insurance institutes the necessity of placing all available resources at the service of this important work.

4. The Imperial Government might further use its influence to increase the imperial housing fund in proportion as these resources are used particularly in the interests of disabled soldiers, even when these are not employees or workmen in the Government service.

5. Credit could also be obtained from some provincial banks and public savings banks, on which the Federal Government might, where necessary, exert a favorable influence. The obtaining of credit will be greatly facilitated by the assuming of guaranties on the part of the cooperating communes.

6. Credits will also be obtainable from private sources, especially rural loan banks (e. g., in Bavaria). Care must be taken, however, that the loan should take the form of a redeemable mortgage, not foreclosable by the creditor, with a moderate interest and a corresponding rate of redemption.

7. It will be necessary to create State funds from which to provide subsidies to free legal aid bureaus and agricultural societies, as also premiums for settling agricultural workers.

8. Settlement organizers, in choosing land for a colony, must always bear in mind that little or no expenditure is to be incurred for municipal, school, and church matters, or for subsequent agricultural arrangements.

9. Efforts should be made to induce the public credit institutions to lend money as freely as possible. Where the disabled soldier possesses some means of his own, the issue of third mortgages secured on these may in some cases be worth considering.

SECURITY OF TENURE FOR DISABLED SOLDIERS ALREADY SETTLED—SOLDIERS' WIDOWS.

1. In view of the heavy indebtedness under which the small estates in the country have long labored, and the probable difficulty of obtaining mortgages after the war, especially second credit on landed property, there is a danger that a large number of

small proprietors who return home from the War disabled and physically enfeebled will be compelled to sell their estates.

2. Such sales would not be conducive to a sound system of land tenure; and the community owes it to the peasant proprietors and agricultural laborers who have been injured while fighting for it to maintain them in possession of their estates and holdings.

3. Hence, in settling disabled soldiers on the land it is necessary at the same time to make provision for maintaining this class of small proprietors in possession of their estates.

4. This provision is to be made by substituting for the present mortgages, with their high interest and right of foreclosure, real estate credit at low interest, not foreclosable, and with facilities for redemption.

5. Proposals to change existing tenures into Government leases (*Rentengüter*) for the purpose of reducing interest payments can be considered only in cases where it seems desirable to subdivide an existing estate by establishing on it one or more settlers' leaseholds.

6. The regulations for raising mortgages, where the disabled soldier is legally qualified to act for himself, are given in the Prussian law of June 26, 1912, for the area to which that law applies.

7. In many other cases where it is desirable to raise a mortgage it will be possible by capitalizing a part of the military pension in accordance with the law on the capitalization of pensions, using the sum thus obtained to pay a single premium to a life insurance society and by mortgaging the sum insured to create the necessary security for obtaining cheap credit from public institutions.

Where other guaranties besides the insurance policy can be furnished for the safeguarding of the mortgagee, these naturally will also be permissible.

8. It may be presumed that the competent rural cooperative societies will guarantee the payment of the interest on reasonable security. This fact will in itself be some guaranty that the capitalizing of the pensions will serve to maintain only those owners in possession of their estates who are capable of managing them efficiently in the future. It would be wrong to exercise any compulsion on the local cooperative societies that they should guarantee the payment of interest.

9. In cases where the life insurance policy method is not feasible to the landowner owing to his age, the policy may be made out in favor of his wife or one of his sons concurrently with the transference to them of the property.

10. The various governments must be asked to exempt from dues and stamp taxes all transactions connected with the settlement of accounts by a State supported settlers' bank.

11. The following bodies may be applied to for furnishing mortgage guaranties to be secured in the way mentioned above:

(a) The life insurance companies.

(b) The other corporate bodies, such as fire insurance companies, provincial banks, etc.

(c) The imperial insurance office for salaried employees.

(d) The public savings banks.

(e) As regards the small proprietors belonging to the working class, the State and provincial invalidity insurance institutes.

12. In the same way the widows of soldiers should be settled on the land, if they and their families possess the required qualifications. The pension capitalization law applies to them equally with the disabled soldiers.

EMPLOYMENT OF SEVERELY INJURED AND BLIND MEN ON MACHINE TOOLS.

In discussing this question the *Frankfurter Zeitung*¹ gives the following interesting particulars:

Engineer Perls, director of the Siemens-Schuckert Works in Berlin, has recently demonstrated that severely injured and blind men can be employed in the manufacture of small electrical fittings, with advantage both to the industry and to the worker himself.

As regards the severely injured, it has been made possible, for instance, for men who have badly injured arms and hands to work with the help of artificial arms, scar-protecting devices, turner's hand-rests, etc., as packers, smiths, and the like. Daily practice soon enables them to turn out a relatively large amount of work. It has naturally to be left to the technical staff or to the foreman to decide upon the kind of work which shall be given to these men, so that the best results may be obtained. This does not offer any great difficulty, especially in large modern factories where thousands of the same kind of articles are produced every day.

Attention is especially drawn to the fact that men who have lost a hand, a forearm, or even the whole arm, are still able to work with good results on the punch, stamping, and drilling machines. The same is true of men who have lost partly or entirely the use of their legs (loss of feet, lower segment of the leg, paralysis, etc.).

The problem of the employment of blind men is, of course, more complicated. Engineer Perls has discovered in the small fittings manufacturing works many articles which can be made by such men and for the making of which they may be allowed to work different kinds of machines.

The best use of blind soldiers in the electrical industry can be made by employing them in testing the exact dimensions of various articles. Articles of bulk production are supplied in large quantities to them. They pick them up one after another, fit them into a contrivance which has the exact dimensions of the articles to be tested, and according to the result of their examination place, say to the right, those which are of the required size, and to the left, those which are to be rejected. Other employments which do not require the use of machines are the packing of cartridge fuses in cardboard boxes, the examination of the contacts with the aid of a bell, etc.

For a long time past blind men have been fixing the bolts in fuse fittings with the aid of special machines. These contrivances can be erected in a very simple manner in any shop. As an example, the three screws of certain screw-contact pieces are fixed by blind men with the help of screw drivers projecting through the bench, and having its driving mechanism fixed under the same. The blind men,

¹ *Frankfurter Zeitung*. Frankfurt on the Main, Sept. 6, 1917.

by feeling, put a screw on the top of each screw driver, place the part into which they have to be screwed over them and switch on the motor which drives the screw drivers. In the same way, with the help of a very simple device, working also through the bench, blind men are able to enlarge small coupling tubes.

The results obtained with blind men working on large machines are still more noteworthy. It has been proved that such men are able, after a very short time, to turn to exact dimensions, on a horizontal thread-cutting machine, small parts used in the production of bulk articles. The principal work to be given to blind men working drilling machines is to enlarge coupling tubes to a certain depth. This work is comparatively simple and does not necessitate any complicated special arrangement on the machines. It is, of course, absolutely necessary to take into account the fact that the work is to be performed by men who are deprived of their eyesight, and for this reason to take the necessary precautions so that the men can work on the machines without danger to themselves. In the work mentioned above the blind man is enabled to enlarge coupling tubes to the prescribed depth with the aid of a striker, which is fixed in such a manner on the machine that any pressing down of the lever further than is necessary is made impossible. By loosening the jaws which hold the coupling tube the finished article usually drops into a kind of funnel, and from there into a box. The system can be applied to horizontal as well as to perpendicular working machines. Drilling holes is done by putting the piece of metal in which the holes have to be drilled into special jigs, holding the piece to be drilled with the left hand and lowering the lever directing the drill with the right hand, till this action is automatically stopped by a striker.

If the necessary measures against accidents are taken, blind men are able to work, with the necessary degree of safety, on punching and stamping machines. In the punching process the pieces to be worked can only be introduced into the machine through one opening. With the help of stamping machines, for instance, blind men take a piece of flat iron sheet shaped like a Maltese cross and bend up the four projections so that the sheet forms a box. The machines are so arranged that they will perform work only if both hands are holding the switches. In the case of workmen who have lost either the right or the left arm this difficulty is overcome by the use of an artificial arm, or an arrangement is provided which sets the machine going by the use of one switch instead of two. The mechanically driven stamping machines used in the manufacture of bulk articles can also be worked by a movement of the foot. In such case it is necessary to protect the place where the machine is erected and where the stamping is done in such a manner that no accident can happen to the blind man's fingers, etc.

The above-mentioned kinds of work can be performed by blind people in a sitting position, and this position is preferable. It has been noticed, however, that some prefer to stand, as is the case with a blind man whose occupation consists in the turning of fuse pieces. He turns the fuse pieces in the ordinary manner, and then takes a file, with which he takes off the seam. This file, however, is provided with an extraordinarily simple device which facilitates its handling. The motor in this case is switched on with the help of the foot. The blind man is thus able to use his capacity for work to the fullest extent.

These and similar kinds of work for severely injured or even blind men deserve special consideration only because they are profitable not only to the men but also to the establishment that employs them. The Siemens-Schuckert Works pay a minimum wage of 35 pfennigs (8.3 cents) per hour to these men, regardless of their physical condition. This wage is paid with a view of encouraging apprentices to overcome the difficulties which they will undoubtedly encounter at the beginning. The management of the Siemens-Schuckert Works, as well as that of the Accumulator Works in Oberspree, both agree, however, upon the fact that the small losses incurred by the works during the period of apprenticeship of the injured soldiers are very soon recovered by the capacity for work of these men. The result is that the blind men employed in the small fittings workshops, for instance, very soon ask to be allowed to work on contract, which gives them after a short time a wage of 55 pfennigs (13.1 cents) an hour. At the same time the works have to incur some extra expenditure. The customary bringing up of material and taking it away is dispensed with. This, as a matter of fact, is not a drawback. It has already been urged by Taylor that in large modern factories all piece-workers should be provided with ample quantities of material within reach of their hands, and that the continual supply of material by assistants ought to be dispensed with. On the other hand, assistants are needed for oiling the machines and fitting the tools on them.

VOCATIONAL GUIDANCE ON PSYCHOLOGICAL PRINCIPLES.

The well-known German weekly for social reform, the *Soziale Praxis*, publishes in its issue of August 30, 1917, a summary by Dr. Otto Lipmann of the main points contained in a pamphlet recently written by him under the title, "Vocational guidance on a psychological basis: Its aims, principles, and methods."¹ A translation of the article follows:

The study of the psychological suitability of the individual for a particular vocation and the vocational guidance based on it has been

¹ "Psychologische Berufsberatung: Ziele, Grundlagen und Methoden," by Dr. Otto Lipmann. (Flugschriften der Zentralstelle für Volkswohlfahrt, No. 12.) Berlin, 1917.

going on in America for about a decade. Information concerning them reached Germany in connection with the efforts of Taylor and his school and stimulated German inquiry in this direction. While, however, the object of the "Taylor system" is to carry on working processes as economically as possible, the human material being taken for granted, the study of vocational suitability endeavors to take account as far as it can of the peculiarities both of the intending worker and of the vocation to be taken up before a choice is actually made. A great stimulus has been given to this study by the War, and the problems connected with it are engaging the attention of both employers and employed in increasing measure.

The problems dealt with by vocational guidance on a psychological basis crystallize round three interconnected questions: (1) The psychological characteristics of each vocation, (2) the selection of vocations for certain individuals, and (3) the selection of individuals for certain vocations.

Of descriptions of the psychological characteristics of single vocations already existing those of spinners and weavers by Bernays and of compositors by Hintze deserve first mention; they have been published by the Verein für Sozialpolitik under the title "Selection and adaptation of workers in the self-contained great industries" (*Auslese und Anpassung der Arbeiterschaft der geschlossenen Grossindustrie*). In his book "Psychology and economic life" (*Psychologie und Wirtschaftsleben*) Münsterberg has analyzed the vocational activities of the compositor, street car motorman, and the telephone operator, while Piorkowski has analyzed those of the compositor, motorman, shipping clerk, and the bookseller's clerk in "Psychological methodology of vocational aptitude" (*Beiträge zur psychologischen Methodologie der wirtschaftlichen Berufseignung*).

In attempting a more comprehensive analysis of as complete a list of vocations as possible one may proceed by selecting a number of easily definable psychological characteristics and then inquiring for what vocations they possess special importance. Thus Piorkowski distinguished among the "specialized" vocations those which require special attention and those which require reactions of special kinds, among the latter being all traffic occupations (street car and locomotive driving, aeroplane piloting, etc.). The specific quality demanded for the higher vocations is taken by Piorkowski to be the faculty of combination. Weigl, in discussing certain psychological qualities, such as apperceptive vision, liability to inattention, range of apperception, liability to suggestion, etc., has grouped together the vocations which appear to be specially dependent for their proper exercise on the presence or absence of each of these qualities; e. g., nonliability to inattention is important for typists, telephone operators, locomotive engineers, teachers, etc.

It is easy to see, however, that no complete psychological characterization of vocations can be reached by this method. Even if we invite those who are acquainted with the processes in question to characterize them from a psychological point of view as accurately as possible—as Freund of Leipzig suggests—we shall only get results worth having if we submit to the employers, workmen, foremen, teachers, etc., concerned a sufficiently comprehensive list of exactly formulated questions which can be answered by a simple “yes” or “no.” A preliminary list of 105 such questions has been published by Dr. Lipmann and used as the basis of analyses of bookbinders’, goldsmiths’, and silversmiths’ work, and of various forms of teachers’ work. As an example of the kind of questions asked may be cited the questions which, according to Münsterberg, require an affirmative answer in the case of the telephone operator: “Does the exercise of this vocation require the ability to hear slight sounds, to recognize them quickly and distinguish them from others; to understand and interpret indistinct utterance correctly; to reproduce accurately after a short interval what has been once heard; to execute with certainty and gauge with accuracy movements of the arm of prescribed extent (aiming); to follow up different impressions by different prescribed movements correctly as required; to observe simultaneously several objects of the same sensory group throughout a prolonged period of time?”

A selection of suitable vocations for a certain individual is indicated in cases where an applicant comes to a vocational guidance bureau without any special wishes of his own and simply puts the question: “What work am I to take up?” If the advising official in answering this question wishes to take into consideration not merely the economic situation and the physical qualities, but also the psychological characteristics of his client, there are three methods of procedure open to him: (1) He may make the applicant characterize himself by submitting to him a series of questions; (2) he may avail himself of the result of characterizations of the applicant by others; (3) he may himself submit the applicant to an experimental examination. The first method, which has been advocated by Parsons and others, appears to be in use in the Vocation Bureau of Boston, but does not seem to offer much prospect of useful results, especially in the case of juveniles. The last-named method has been employed by Weigl in Munich, but it is, of course, bound to be confined to a few characteristics and must therefore necessarily be supplemented by the second method. If the latter is properly carried out by competent observers who have studied the applicant thoroughly, it would seem to be the most promising, and as such should take precedence of the method of experimental examination as the principal method to be relied upon.

The persons who would appear *prima facie* to be best qualified to characterize any applicant are the teachers who have given him instruction at school; but, of course, they must be trained in psychological observation, and they must be directed to pay special attention to the qualities which are decisive factors in estimating aptitude for various vocations. Lists of such questions in the form of vocational psychological schedules have been lately published by Weigl in Munich, and by Hylla in Oberschöneweide (Berlin). If observational questionnaires of this description can be generally introduced in schools and the teachers instructed to fill them in with due care, the giving of vocational guidance on a psychological basis would be greatly facilitated, for it would then be possible for the advising official to recognize at once which vocational groups are likely to be suitable for the applicant and which he should be warned to avoid. Otherwise the question: "For what work am I suitable?" will only admit of a satisfactory answer in the exceptional case of conspicuous ability in one direction.

It is, of course, obvious that the choice of a vocation is often determined by other motives, e. g., economic, and interested motives, as well, and that in such case the applicant will put a much more definite question, such as "Can I become a printer?" This will always be the case when the application is made to the apprenticeship bureau of a particular employers' association, or even to some particular establishment. The task of the respective officials in this case is to select suitable persons for a particular vocation and conversely to keep unsuitable persons out of it. Here, again, more exact methods of determining suitability or unsuitability may be employed, and these have already been systematized in certain cases. Thus Dück (Innsbruck) has dealt with the examination of electrical engineers, Münsterberg with that of motormen and telephone operators, Piorkowski and Moede with that of compositors, Stern with that of motormen, and Lewin, in cooperation with the author of the pamphlet under review, with that of compositors. In connection with this last-named examination, undertaken at the instance of the Berlin Master Printers' Association, the following facts were determined: (1) The number of errors and the amount of assistance required in reading an indistinct and incomplete text; (2) the number of errors in spelling long words; (3) the number of apperceptive acts in copying text; (4) the rate of speed in reading aloud, spelling, and copying; (5) the degree of skill acquired in typewriting after short practice—this last is a standard for measuring ability in the case of linotype compositors.

The author concludes his article by a sketch of the present state of the organization of research into the subject of vocational psychology in Germany. The first place, he says, is probably due to the

committee for vocational advice appointed by the National Welfare Center (*Zentralstelle für Volkswohlfahrt*) in Berlin, which has been responsible for the greater part of the essays quoted above. Next come the working associations founded by Stern in Hamburg and by Weigl in Munich, the work of Dück in Innsbruck, and the inquiries conducted at the instance of the military authorities by Moede and Piorkowski in Berlin. Stern also does a great deal of instructional work, and Weigl conducts elementary courses of psychology for advisory officials. These energetic efforts, adds Lipmann, are the more interesting in view of the fact that the difficulties are particularly great at the present moment; no employer is in a position to pick and choose his labor according to suitability, but he takes whatever he can get. On the other hand, it is our obvious duty to prepare for the changes which will be involved by the transition from war to peace, and for this reason it is imperative that research should continue to develop even during the war. For such development, however, research should be systematically coordinated and centralized and the active cooperation both of employers and employed is desirable. Pecuniary assistance for such research may possibly be obtained from employers in the war industries. At any rate, all money spent on this object will bear fruit a thousandfold to the national welfare.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

According to reports received from retail dealers by the Bureau of Labor Statistics, the price of food as a whole shows an increase of 1 per cent during the month from January 15 to February 15, 1918.

Of the 16 articles for which relative prices are shown, 3 decreased in price, 5 remained the same, and 8 increased in price. Eggs declined 9 per cent, pork chops 2 per cent, and bacon 1 per cent. Milk, bread, flour, corn meal, and potatoes are the articles that show no price change. Sugar shows the greatest increase, being 12 per cent higher on February 15 than on January 15. Hens increased 10 per cent, round steak 3 per cent, sirloin steak, chuck roast, and butter 2 per cent each, and ham 1 per cent. The increase in the price of lard was less than 1 per cent.

The following table shows the course of prices in the United States in January and February, 1918:

AVERAGE MONEY RETAIL PRICES, AND RELATIVE RETAIL PRICES OF FOOD ON JAN.
15, 1918, AND FEB. 15, 1918.

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

Article.	Unit.	Average money price.		Relative price.	
		Jan. 15, 1918.	Feb. 15, 1918.	Jan. 15, 1918.	Feb. 15, 1918.
Sirloin steak.....	Pound.....	\$0.327	\$0.334	129	131
Round steak.....	do.....	.306	.314	137	141
Rib roast.....	do.....	.258	.263	130	133
Chuck roast.....	do.....	.221	.227	.....	.....
Plate beef.....	do.....	.172	.177	.....	.....
Pork chops.....	do.....	.343	.336	163	160
Bacon.....	do.....	.486	.484	180	179
Ham.....	do.....	.436	.438	162	163
Lard.....	do.....	.329	.330	208	209
Hens.....	do.....	.329	.362	154	170
Salmon, canned.....	do.....	.292	.291	.....	.....
Eggs.....	Dozen.....	.674	.611	195	177
Butter.....	Pound.....	.567	.579	148	151
Cheese.....	do.....	.345	.349	.....	.....
Milk.....	Quart.....	.134	.134	151	151
Bread.....	16-oz. loaf.....	.083	.083	166	166
Flour.....	Pound.....	.066	.066	200	200
Corn meal.....	do.....	.070	.070	233	233
Rice.....	do.....	.117	.118	.....	.....
Potatoes.....	do.....	.032	.032	188	188
Onions.....	do.....	.050	.049	.....	.....
Beans, navy.....	do.....	.185	.181	.....	.....
Prunes.....	do.....	.164	.165	.....	.....
Raisins, seeded.....	do.....	.150	.150	.....	.....
Sugar.....	do.....	.095	.106	173	193
Coffee.....	do.....	.304	.304	.....	.....
Tea.....	do.....	.623	.609	.....	.....
All articles combined.....	.....	.....	.....	160	161

*16 ounces, weight of dough.

In the year from February 15, 1917 to February 15, 1918, the price of food as a whole in the United States advanced 21 per cent. The

only article that was lower in price in February, 1918, than in February, 1917, was potatoes. This article shows a decrease of 35 per cent. During the year corn meal increased 71 per cent; bacon, 57 per cent; and lard, 51 per cent. Other articles showing an increase of more than 25 per cent are: Ham, 38 per cent; hens and milk, 35 per cent each; sugar, 30 per cent; and pork chops, 28 per cent. All the other articles increased in price from 17 per cent, as in the case of sirloin steak, rib roast, bread, and flour, to 24 per cent in the case of butter.

From February, 1913, to February, 1918, food as a whole shows an increase of 66 per cent. Every article shows an increase in price of 40 per cent or more. Corn meal increased 138 per cent; lard, 113 per cent; potatoes, 109 per cent; and flour, 100 per cent. Nine articles—milk, round steak, bread, ham, hens, pork chops, bacon, sugar, and eggs—show increases ranging from 51 per cent for milk to 95 per cent for eggs. The least price changes are shown by sirloin steak, rib roast, and butter. Each of these increased 40 per cent.

The table which follows gives the average and relative retail prices in February of each year from 1913 to 1918:

AVERAGE MONEY PRICES AND RELATIVE RETAIL PRICES OF FOOD ON FEB. 15 OF EACH YEAR, 1913 TO 1918, INCLUSIVE.

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

Article.	Unit.	Average money price, Feb. 15—						Relative price, Feb. 15—					
		1913	1914	1915	1916	1917	1918	1913	1914	1915	1916	1917	1918
Sirloin steak.....	Lb....	\$0.240	\$0.254	\$0.248	\$0.257	\$0.287	\$0.334	94	99	98	101	113	131
Round steak.....	Lb....	.206	.228	.223	.228	.260	.314	93	102	100	102	117	141
Rib roast.....	Lb....	.189	.199	.197	.201	.225	.263	95	101	100	102	114	133
Chuck roast.....	Lb....		.169	.162	.162	.186	.227						
Plate beef.....	Lb....		.124	.123	.122	.141	.177						
Pork chops.....	Lb....	.188	.209	.179	.193	.261	.336	90	100	85	92	125	160
Bacon.....	Lb....	.255	.264	.267	.273	.307	.484	95	98	99	101	114	179
Ham.....	Lb....	.253	.265	.259	.297	.318	.438	94	99	96	110	118	163
Lard.....	Lb....	.154	.158	.152	.177	.219	.330	98	99	97	112	138	209
Hens.....	Lb....	.208	.222	.208	.222	.267	.362	97	104	97	104	126	170
Salmon, canned.....	Lb....			.198	.200	.216	.291						
Eggs.....	Doz....	.315	.364	.338	.349	.506	.611	91	106	98	101	147	177
Butter.....	Lb....	.414	.359	.378	.378	.469	.579	108	93	98	99	122	151
Cheese.....	Lb....			.235	.248	.315	.349						
Milk.....	Qt....	.089	.091	.089	.089	.100	.134	100	102	100	100	112	151
Bread.....	16 oz. l.	.050	.055	.063	.062	.071	.083	100	110	126	124	142	166
Flour.....	Lb....	.033	.032	.045	.041	.056	.066	100	99	138	125	171	209
Corn meal.....	Lb....	.030	.031	.033	.033	.041	.070	98	103	110	108	136	233
Rice.....	Lb....			.091	.091	.091	.118						
Potatoes.....	Lb....	.016	.019	.015	.025	.051	.032	90	108	84	141	290	183
Onions.....	Lb....			.034	.044	.122	.049						
Beans, navy.....	Lb....			.076	.092	.149	.181						
Prunes.....	Lb....			.137	.133	.141	.165						
Raisins, seeded.....	Lb....			.125	.126	.141	.150						
Sugar.....	Lb....	.055	.051	.064	.068	.081	.106	100	94	118	125	148	193
Coffee.....	Lb....			.299	.299	.299	.304						
Tea.....	Lb....			.546	.546	.546	.609						
All articles combined.....								97	101	101	106	133	161

¹ Loaf; 16 ounces, weight of dough.

The two tables which follow give average retail prices for 29 articles in 44 cities.

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For 15 of the larger cities, average prices are shown in the following table for January, 1918, and for February, 1913, 1914, 1917, and 1918. No prices are given for Atlanta, Ga., as less than 80 per cent of the grocers and butchers of that city sent in their reports for February, 1918, to the bureau.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 15 SELECTED CITIES ON FEB. 15, 1913, 1914, 1917, AND 1918, AND JAN. 15, 1918.

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

Article.	Unit.	Atlanta, Ga.					Baltimore, Md.				
		Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	(1)	(1)	(1)	(1)	(1)	\$0.207	\$0.234	\$0.274	\$0.327	\$0.334
Round steak.....	do.....	(1)	(1)	(1)	(1)	(1)	.190	.222	.260	.315	.329
Rib roast.....	do.....	(1)	(1)	(1)	(1)	(1)	.173	.180	.218	.267	.255
Chuck roast.....	do.....	(1)	(1)	(1)	(1)	(1)	.147	.152	.180	.231	.237
Plate beef.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.133	.150	.183	.186
Pork chops.....	do.....	(1)	(1)	(1)	(1)	(1)	.173	.188	.252	.348	.344
Bacon, sliced.....	do.....	(1)	(1)	(1)	(1)	(1)	.213	.230	.268	.450	.449
Ham, sliced.....	do.....	(1)	(1)	(1)	(1)	(1)	.300	.290	.350	.491	.479
Lard.....	do.....	(1)	(1)	(1)	(1)	(1)	.135	.145	.210	.332	.326
Lamb.....	do.....	(1)	(1)	(1)	(1)	(1)	.180	.180	.270	.327	.332
Hens.....	do.....	(1)	(1)	(1)	(1)	(1)	.198	.228	.280	.351	.403
Salmon, canned.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.173	.262	.261
Eggs, strictly fresh.....	Dozen.....	(1)	(1)	(1)	(1)	(1)	.271	.352	.497	.741	.655
Eggs, storage.....	do.....	(1)	(1)	(1)	(1)	(1)	.230	.320	.....	.541	.490
Butter.....	Pound.....	(1)	(1)	(1)	(1)	(1)	.423	.377	.493	.591	.604
Cheese.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.325	.355	.357
Milk.....	Quart.....	(1)	(1)	(1)	(1)	(1)	.088	.087	.092	.130	.130
Bread.....	16-oz. loaf ²	(1)	(1)	(1)	(1)	(1)	.048	.049	.066	.075	.077
Flour.....	Pound.....	(1)	(1)	(1)	(1)	(1)	.032	.032	.056	.066	.067
Corn meal.....	do.....	(1)	(1)	(1)	(1)	(1)	.024	.025	.034	.061	.060
Rice.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.098	.115	.115
Potatoes.....	do.....	(1)	(1)	(1)	(1)	(1)	.017	.018	.053	.036	.036
Onions.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.125	.051	.049
Beans, navy.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.147	.186	.182
Prunes.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.127	.186	.166
Raisins.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.130	.153	.151
Sugar.....	do.....	(1)	(1)	(1)	(1)	(1)	.050	.047	.075	.094	.090
Coffee.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.235	.277	.282
Tea.....	do.....	(1)	(1)	(1)	(1)	(1)	.....	.....	.550	.653	.644
		Boston, Mass.					Buffalo, N. Y.				
		1913	1914	1917	1918	1918	1913	1914	1917	1918	1918
Sirloin steak.....	Pound.....	\$0.345	\$0.329	\$0.408	\$0.426	\$0.424	\$0.203	\$0.215	\$0.263	\$0.314	\$0.321
Round steak.....	do.....	.324	.341	.385	.427	.430	.183	.192	.235	.292	.299
Rib roast.....	do.....	.234	.240	.278	.303	.303	.170	.168	.200	.250	.253
Chuck roast.....	do.....	.170	.178	.230	.253	.254	.147	.155	.178	.223	.230
Plate beef.....	do.....	.....	.....	.....	.....	.....	.....	.118	.148	.175	.179
Pork chops.....	do.....	.206	.226	.278	.350	.345	.193	.205	.288	.354	.321
Bacon, sliced.....	do.....	.246	.250	.300	.459	.460	.203	.207	.260	.443	.433
Ham, sliced.....	do.....	.283	.314	.358	.465	.460	.240	.250	.343	.451	.448
Lard.....	do.....	.153	.156	.223	.354	.335	.139	.142	.200	.319	.313
Lamb.....	do.....	.218	.217	.291	.334	.333	.175	.164	.240	.291	.294
Hens.....	do.....	.228	.244	.297	.349	.380	.200	.224	.275	.328	.309
Salmon, canned.....	do.....	.....	.....	.206	.302	.308	.....	.....	.178	.286	.286
Eggs, strictly fresh.....	Dozen.....	.375	.453	.603	.791	.748	.310	.356	.550	.718	.690
Eggs, storage.....	do.....	.252	.358	.470	.541	.590	.222	.305	.467	.526	.573
Butter.....	Pound.....	.389	.367	.454	.544	.590	.412	.339	.457	.570	.585
Cheese.....	do.....	.....	.....	.294	.332	.336	.....	.....	.300	.336	.342
Milk.....	Quart.....	.080	.080	.105	.145	.145	.080	.080	.100	.140	.140
Bread.....	16-oz. loaf ².....	.052	.053	.068	.078	.076	.050	.046	.073	.083	.073
Flour.....	Pound.....	.037	.037	.061	.074	.073	.029	.030	.053	.062	.063
Corn meal.....	do.....	.035	.036	.047	.077	.079	.025	.026	.039	.077	.075
Rice.....	do.....	.....	.....	.097	.120	.122	.....	.....	.093	.119	.121
Potatoes.....	do.....	.017	.021	.053	.037	.038	.014	.017	.053	.031	.031
Onions.....	do.....	.....	.....	.120	.067	.054	.....	.....	.129	.054	.053
Beans, navy.....	do.....	.....	.....	.152	.188	.186	.....	.....	.142	.193	.186
Prunes.....	do.....	.....	.....	.147	.267	.170	.....	.....	.132	.169	.172
Raisins.....	do.....	.....	.....	.142	.143	.150	.....	.....	.122	.140	.141
Sugar.....	do.....	.054	.051	.079	.099	.098	.053	.050	.078	.097	.097
Coffee.....	do.....	.....	.....	.346	.346	.341	.....	.....	.285	.300	.306
Tea.....	do.....	.....	.....	.600	.617	.631	.....	.....	.475	.555	.567

¹ Prices not shown; less than 80 per cent of reports for February, 1918, received by bureau.

² 16 ounces, weight of dough.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 15 SELECTED CITIES ON FEB. 15, 1913, 1914, 1917, AND 1918, AND JAN. 15, 1918—Continued.

Article.	Unit.	Chicago, Ill.					Cleveland, Ohio.				
		Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.209	\$0.241	\$0.273	\$0.302	\$0.304	\$0.223	\$0.249	\$0.282	\$0.302	\$0.316
Round steak.....	do.....	.186	.211	.236	.273	.272	.188	.223	.252	.288	.299
Rib roast.....	do.....	.181	.193	.228	.254	.251	.180	.200	.223	.244	.252
Chuck roast.....	do.....	.139	.156	.176	.212	.214	.147	.170	.197	.224	.236
Plate beef.....	do.....	.....	.118	.137	.164	.166	.....	.123	.142	.168	.177
Pork chops.....	do.....	.163	.187	.250	.316	.301	.183	.214	.285	.331	.326
Bacon, sliced.....	do.....	.290	.303	.336	.498	.499	.243	.276	.319	.470	.477
Ham, sliced.....	do.....	.295	.310	.354	.428	.448	.320	.335	.365	.456	.455
Lard.....	do.....	.147	.150	.206	.318	.317	.158	.164	.227	.316	.322
Lamb.....	do.....	.191	.197	.252	.306	.306	.187	.187	.286	.301	.311
Hens.....	do.....	.194	.194	.264	.304	.352	.306	.226	.299	.338	.373
Salmon, canned.....	do.....	.....	.....	.243	.303	.303	.....	.....	.197	.282	.281
Eggs, strictly fresh.....	Dozen.....	.273	.329	.503	.651	.593	.318	.362	.581	.725	.702
Eggs, storage.....	do.....	.226	.....	.440	.534	.530	.....	.....	.....	.524	.593
Butter.....	Pound.....	.399	.329	.466	.544	.547	.436	.362	.518	.571	.578
Cheese.....	do.....	.....	.....	.329	.375	.377	.....	.....	.313	.338	.342
Milk.....	Quart.....	.080	.080	.090	.119	.119	.088	.080	.100	.130	.130
Bread.....	16-oz. loaf ¹.....	.054	.054	.073	.080	.084	.049	.050	.070	.079	.078
Flour.....	Pound.....	.028	.029	.051	.061	.063	.032	.032	.061	.068	.068
Corn meal.....	do.....	.029	.029	.041	.070	.069	.028	.029	.041	.072	.069
Rice.....	do.....	.....	.....	.094	.120	.121	.....	.....	.092	.119	.121
Potatoes.....	do.....	.012	.017	.050	.028	.029	.014	.019	.055	.030	.031
Onions.....	do.....	.....	.....	.129	.045	.046	.....	.....	.138	.048	.048
Beans, navy.....	do.....	.....	.....	.153	.185	.185	.....	.....	.152	.181	.177
Prunes.....	do.....	.....	.....	.140	.162	.165	.....	.....	.140	.171	.172
Raisins.....	do.....	.....	.....	.150	.150	.151	.....	.....	.139	.146	.146
Sugar.....	do.....	.050	.050	.074	.084	.087	.055	.052	.081	.096	.094
Coffee.....	do.....	.....	.....	.300	.283	.282	.....	.....	.288	.289	.291
Tea.....	do.....	.....	.....	.550	.593	.591	.....	.....	.475	.599	.580
		Denver, Colo.					Detroit, Mich.				
		Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.225	\$0.243	\$0.235	\$0.292	\$0.303	\$0.228	\$0.256	\$0.260	\$0.318	\$0.321
Round steak.....	do.....	.184	.207	.213	.276	.282	.182	.210	.228	.285	.298
Rib roast.....	do.....	.159	.174	.191	.225	.236	.182	.202	.228	.251	.259
Chuck roast.....	do.....	.145	.158	.164	.203	.209	.145	.154	.174	.210	.224
Plate beef.....	do.....	.....	.100	.105	.148	.151	.....	.117	.130	.167	.177
Pork chops.....	do.....	.165	.186	.236	.333	.325	.168	.184	.242	.333	.331
Bacon, sliced.....	do.....	.263	.270	.317	.518	.483	.224	.233	.270	.458	.457
Ham, sliced.....	do.....	.270	.292	.333	.467	.475	.240	.280	.233	.423	.426
Lard.....	do.....	.163	.163	.221	.342	.341	.159	.161	.208	.329	.336
Lamb.....	do.....	.155	.154	.218	.289	.292	.167	.166	.226	.313	.324
Hens.....	do.....	.200	.201	.225	.305	.338	.200	.216	.270	.342	.375
Salmon, canned.....	do.....	.....	.....	.194	.276	.279	.....	.....	.195	.286	.274
Eggs, strictly fresh.....	Dozen.....	.290	.336	.438	.612	.600	.312	.374	.543	.726	.668
Eggs, storage.....	do.....	.....	.250	.400	.509	.483	.248	.320	.....	.528	.550
Butter.....	Pound.....	.400	.343	.388	.543	.560	.404	.349	.468	.556	.568
Cheese.....	do.....	.....	.....	.325	.358	.361	.....	.....	.305	.338	.343
Milk.....	Quart.....	.084	.084	.083	.115	.115	.088	.089	.110	.140	.140
Bread.....	16-oz. loaf ¹.....	.047	.048	.075	.086	.087	.050	.050	.073	.077	.075
Flour.....	Pound.....	.027	.025	.046	.054	.054	.032	.031	.055	.062	.065
Corn meal.....	do.....	.025	.025	.032	.059	.056	.027	.028	.044	.077	.077
Rice.....	do.....	.....	.....	.092	.115	.116	.....	.....	.086	.118	.121
Potatoes.....	do.....	.011	.015	.052	.022	.022	.013	.016	.054	.029	.029
Onions.....	do.....	.....	.....	.106	.047	.044	.....	.....	.121	.053	.055
Beans, navy.....	do.....	.....	.....	.138	.177	.174	.....	.....	.150	.179	.182
Prunes.....	do.....	.....	.....	.138	.166	.171	.....	.....	.129	.168	.171
Raisins.....	do.....	.....	.....	.131	.147	.153	.....	.....	.128	.138	.141
Sugar.....	do.....	.054	.050	.079	.089	.090	.051	.050	.079	.087	.089
Coffee.....	do.....	.....	.....	.288	.300	.300	.....	.....	.275	.298	.304
Tea.....	do.....	.....	.....	.488	.575	.575	.....	.....	.450	.544	.573

¹ 16 ounces, weight of dough.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 141

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 15 SELECTED CITIES ON FEB. 15, 1913, 1914, 1917, AND 1918, AND JAN. 15, 1918—Continued.

		Milwaukee, Wis.					New York, N. Y.				
Article.	Unit.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.205	\$0.236	\$0.254	\$0.298	\$0.302	\$0.247	\$0.257	\$0.298	\$0.344	\$0.347
Round steak.....	do.....	.185	.216	.236	.284	.287	.231	.255	.292	.352	.356
Rib roast.....	do.....	.173	.188	.205	.245	.248	.211	.218	.247	.294	.295
Chuck roast.....	do.....	.150	.164	.183	.225	.227	.151	.162	.188	.236	.237
Plate beef.....	do.....	.117	.117	.134	.167	.171	.148	.160	.221	.220	.220
Pork chops.....	do.....	.153	.178	.248	.321	.306	.198	.218	.276	.348	.349
Bacon, sliced.....	do.....	.263	.274	.313	.489	.479	.231	.250	.288	.462	.459
Ham, sliced.....	do.....	.268	.278	.324	.451	1.452	1.186	1.193	1.239	1.328	1.336
Lard.....	do.....	.151	.157	.226	.319	.326	.157	.156	.223	.330	.331
Lamb.....	do.....	.195	.190	.267	.312	.323	.165	.161	.234	.281	.283
Hens.....	do.....	.188	.194	.258	.304	.326	.204	.217	.273	.326	.365
Salmon, canned.....	do.....	.227	.278	.272	.272	.272	.254	.355	.350	.350	.350
Eggs, strictly fresh.....	Dozen.....	.290	.347	.493	.630	.635	.380	.437	.591	.808	.697
Eggs, storage.....	do.....	.220	.445	.491	.539	.260	.353	.450	.536	.580	.580
Butter.....	Pound.....	.402	.332	.474	.544	.551	.415	.363	.492	.574	.582
Cheese.....	do.....	.313	.335	.348	.348	.348	.305	.344	.345	.345	.345
Milk.....	Quart.....	.070	.070	.080	.110	.110	.090	.090	.109	.150	.146
Bread.....	16-oz. loaf ².....	.050	.051	.076	.075	.075	.053	.054	.072	.078	.077
Flour.....	Pound.....	.031	.030	.055	.062	.065	.032	.032	.057	.070	.071
Corn meal.....	do.....	.033	.033	.050	.071	.075	.034	.034	.051	.082	.080
Rice.....	do.....	.095	.118	.121	.121	.121	.091	.118	.117	.117	.117
Potatoes.....	do.....	.012	.016	.050	.027	.029	.025	.025	.059	.043	.044
Onions.....	do.....	.131	.048	.047	.047	.047	.140	.052	.052	.052	.052
Beans, navy.....	do.....	.150	.190	.180	.180	.180	.139	.185	.185	.185	.185
Prunes.....	do.....	.152	.158	.166	.166	.166	.139	.168	.168	.168	.168
Raisins.....	do.....	.143	.151	.148	.148	.148	.134	.151	.149	.149	.149
Sugar.....	do.....	.054	.053	.078	.086	.086	.049	.045	.076	.097	.091
Coffee.....	do.....	.283	.261	.268	.261	.268	.265	.267	.267	.267	.267
Tea.....	do.....	.540	.595	.589	.589	.589	.460	.541	.536	.536	.536
		Philadelphia, Pa.					Pittsburgh, Pa.				
Sirloin steak.....	Pound.....	\$0.283	\$0.300	\$0.339	\$0.387	\$0.401	\$0.248	\$0.275	\$0.307	\$0.360	\$0.377
Round steak.....	do.....	.234	.257	.307	.360	.376	.214	.232	.272	.332	.351
Rib roast.....	do.....	.214	.221	.252	.296	.303	.206	.213	.248	.272	.290
Chuck roast.....	do.....	.165	.180	.215	.253	.258	.156	.170	.197	.239	.256
Plate beef.....	do.....	.119	.119	.143	.183	.192	.128	.141	.175	.192	.192
Pork chops.....	do.....	.191	.219	.279	.372	.363	.200	.225	.288	.356	.333
Bacon, sliced.....	do.....	.234	.254	.306	.468	.470	.272	.291	.311	.505	.501
Ham, sliced.....	do.....	.290	.296	.375	.488	.488	.290	.294	.359	.470	.478
Lard.....	do.....	.144	.151	.214	.336	.334	.151	.156	.219	.334	.332
Lamb.....	do.....	.186	.194	.268	.314	.324	.215	.208	.298	.345	.347
Hens.....	do.....	.213	.235	.287	.338	.371	.253	.272	.338	.388	.436
Salmon, canned.....	do.....	.193	.266	.266	.265	.265	.217	.305	.305	.305	.305
Eggs, strictly fresh.....	Dozen.....	.301	.380	.560	.741	.690	.292	.375	.548	.747	.697
Eggs, storage.....	do.....	.240	.295	.425	.529	.553	.250	.330	.496	.586	.591
Butter.....	Pound.....	.471	.399	.545	.624	.630	.431	.378	.496	.586	.591
Cheese.....	do.....	.326	.362	.374	.374	.374	.316	.352	.357	.357	.357
Milk.....	Quart.....	.080	.080	.090	.135	.130	.088	.092	.103	.137	.138
Bread.....	16-oz. loaf ².....	.043	.043	.062	.071	.071	.048	.048	.070	.082	.086
Flour.....	Pound.....	.032	.031	.057	.071	.072	.031	.031	.056	.070	.069
Corn meal.....	do.....	.028	.028	.040	.071	.073	.027	.029	.045	.068	.065
Rice.....	do.....	.097	.128	.130	.130	.130	.095	.119	.121	.121	.121
Potatoes.....	do.....	.021	.024	.062	.039	.039	.016	.019	.058	.033	.037
Onions.....	do.....	.149	.055	.052	.052	.052	.134	.051	.050	.050	.050
Beans, navy.....	do.....	.146	.187	.186	.186	.186	.160	.197	.190	.190	.190
Prunes.....	do.....	.143	.165	.168	.168	.168	.134	.172	.175	.175	.175
Raisins.....	do.....	.127	.140	.140	.140	.140	.147	.146	.149	.149	.149
Sugar.....	do.....	.049	.045	.081	.096	.092	.058	.054	.089	.099	.098
Coffee.....	do.....	.285	.272	.278	.272	.278	.281	.302	.299	.299	.299
Tea.....	do.....	.544	.576	.596	.596	.596	.571	.727	.723	.723	.723

¹ Whole.

² 16 ounces, weight of dough.

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

Article.	Unit.	St. Louis, Mo.					San Francisco, Cal.				
		Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pounds.....	\$0.228	\$0.268	\$0.275	\$0.300	\$0.300	\$0.203	\$0.210	\$0.234	\$0.243	\$0.264
Round steak.....	do.....	.204	.242	.250	.296	.297	.190	.197	.227	.237	.258
Rib roast.....	do.....	.176	.204	.219	.257	.261	.207	.220	.228	.235	.246
Chuck roast.....	do.....	.142	.157	.175	.215	.213	.146	.155	.162	.173	.191
Plate beef.....	do.....	.....	.173	.135	.172	.171	.....	.150	.156	.166	.182
Pork chops.....	do.....	.171	.188	.250	.303	.293	.230	.250	.280	.361	.351
Bacon, sliced.....	do.....	.230	.250	.300	.500	.478	.328	.339	.375	.535	.538
Ham, sliced.....	do.....	.267	.275	.316	.457	.458	.300	.320	.400	.489	.494
Lard.....	do.....	.132	.127	.193	.286	.293	.176	.174	.228	.336	.334
Lamb.....	do.....	.178	.173	.262	.306	.302	.172	.183	.243	.282	.293
Hens.....	do.....	.174	.203	.240	.301	.347	.238	.248	.287	.375	.418
Salmon, canned.....	do.....	.....	.....	.191	.285	.288	.....	.....	.196	.257	.254
Eggs, strictly fresh.....	Dozen.....	.244	.319	.482	.684	.573	.250	.289	.390	.710	.489
Eggs, storage.....	do.....	.200	.....	.....	.525	.495	.....	.336	.....	.488	.383
Butter.....	Pound.....	.404	.352	.481	.581	.580	.407	.....	.433	.602	.589
Cheese.....	do.....	.....	.....	.307	.352	.365	.....	.....	.287	.335	.329
Milk.....	Quart.....	.080	.088	.095	.130	.130	.100	.100	.100	.121	.121
Bread.....	16-oz loaf ¹.....	.049	.050	.076	.088	.088	.051	.052	.063	.085	.084
Flour.....	Pound.....	.030	.028	.051	.061	.061	.033	.034	.051	.062	.062
Corn meal.....	do.....	.021	.026	.035	.059	.062	.034	.034	.044	.071	.069
Rice.....	do.....	.....	.....	.086	.112	.111	.....	.....	.088	.119	.119
Potatoes.....	do.....	.015	.018	.050	.030	.031	.015	.018	.047	.027	.023
Onions.....	do.....	.....	.....	.132	.046	.044	.....	.....	.123	.033	.034
Beans, navy.....	do.....	.....	.....	.147	.179	.179	.....	.....	.146	.162	.158
Prunes.....	do.....	.....	.....	.138	.167	.167	.....	.....	.124	.142	.142
Raisins.....	do.....	.....	.....	.149	.165	.169	.....	.....	.135	.138	.128
Sugar.....	do.....	.051	.048	.076	.087	.087	.053	.052	.075	.086	.087
Coffee.....	do.....	.....	.....	.237	.274	.274	.....	.....	.317	.309	.301
Tea.....	do.....	.....	.....	.543	.650	.652	.....	.....	.517	.539	.543
		Seattle, Wash.					Washington, D. C.				
		Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.	Feb. 15—			Jan. 15, 1918.	Feb. 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound.....	\$0.220	\$0.240	\$0.238	\$0.275	\$0.300	\$0.259	\$0.275	\$0.300	\$0.370	\$0.380
Round steak.....	do.....	.200	.209	.224	.256	.285	.218	.234	.282	.351	.360
Rib roast.....	do.....	.184	.194	.210	.228	.251	.200	.213	.248	.288	.296
Chuck roast.....	do.....	.150	.151	.166	.195	.214	.156	.170	.204	.254	.257
Plate beef.....	do.....	.....	.128	.125	.162	.183	.....	.124	.162	.195	.202
Pork chops.....	do.....	.234	.240	.268	.388	.388	.193	.210	.286	.381	.378
Bacon, sliced.....	do.....	.300	.321	.334	.534	.535	.233	.243	.292	.488	.485
Ham, sliced.....	do.....	.292	.300	.330	.464	.469	.282	.286	.325	.472	.473
Lard.....	do.....	.179	.162	.219	.327	.327	.144	.148	.214	.336	.336
Lamb.....	do.....	.183	.187	.254	.315	.327	.210	.207	.296	.357	.346
Hens.....	do.....	.243	.247	.270	.341	.359	.213	.226	.290	.350	.391
Salmon, canned.....	do.....	.....	.....	.211	.285	.283	.....	.....	.180	.283	.287
Eggs, strictly fresh.....	Dozen.....	.300	.366	.407	.595	.528	.263	.356	.538	.813	.671
Eggs, storage.....	do.....	.225	.....	.....	.475	.475	.205	.....	.....	.684	.617
Butter.....	Pound.....	.426	.397	.466	.587	.588	.440	.376	.496	.600	.605
Cheese.....	do.....	.....	.....	.273	.306	.308	.....	.....	.316	.355	.357
Milk.....	Quart.....	.091	.095	.100	.126	.126	.090	.090	.100	.140	.140
Bread.....	16-oz loaf ¹.....	.048	.051	.080	.087	.087	.049	.050	.071	.076	.074
Flour.....	Pound.....	.030	.029	.047	.059	.058	.037	.037	.056	.070	.069
Corn meal.....	do.....	.031	.033	.040	.073	.072	.025	.025	.032	.066	.063
Rice.....	do.....	.....	.....	.087	.108	.117	.....	.....	.096	.125	.127
Potatoes.....	do.....	.009	.013	.038	.019	.017	.015	.019	.053	.035	.036
Onions.....	do.....	.....	.....	.097	.044	.042	.....	.....	.136	.051	.050
Beans, navy.....	do.....	.....	.....	.144	.177	.168	.....	.....	.152	.200	.196
Prunes.....	do.....	.....	.....	.130	.143	.146	.....	.....	.150	.174	.175
Raisins.....	do.....	.....	.....	.131	.149	.147	.....	.....	.139	.152	.156
Sugar.....	do.....	.061	.057	.079	.089	.091	.052	.048	.086	.096	.089
Coffee.....	do.....	.....	.....	.326	.318	.312	.....	.....	.294	.296	.293
Tea.....	do.....	.....	.....	.500	.561	.564	.....	.....	.532	.639	.637

¹ 16 ounces, weight of dough.

A presentation of current retail prices in 29 smaller cities is given in the following table showing the average prices for February 15, 1918.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 23 CITIES ON FEB. 15, 1918.

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

Average retail prices Feb. 15, 1918.											
Article.	Unit.	Bir- ming- ham, Ala.	Bridge- port, Conn.	Butte, Mont.	Charles- ton, S. C.	Cin- cin- nati, Ohio.	Co- lum- bus, Ohio.	Dal- las, Tex.	Fall River, Mass.	In- dian- apolis, Ind.	Jack- son- ville Fla.
Sirloin steak.....	Lb....	\$0.352	\$0.418	\$0.310	\$0.308	\$0.282	\$0.322	\$0.330	\$0.425	\$0.315	\$0.348
Round steak.....	Lb....	.316	.334	.278	.298	.273	.291	.316	.364	.313	.306
Rib roast.....	Lb....	.279	.316	.253	.263	.244	.249	.272	.278	.239	.277
Chuck roast.....	Lb....	.225	.274	.209	.210	.210	.226	.244	.235	.216	.213
Plate beef.....	Lb....	.170	.170	.152	.181	.177	.173	.196	.....	.171	.167
Pork chops.....	Lb....	.339	.338	.356	.363	.284	.316	.341	.337	.325	.353
Bacon,sliced.....	Lb....	.520	.506	.572	.507	.453	.478	.541	.445	.476	.500
Ham,sliced.....	Lb....	.440	.501	.494	.460	.434	.445	.461	.437	.457	.438
Lard.....	Lb....	.321	.330	.339	.338	.302	.328	.339	.317	.310	.333
Lamb.....	Lb....	.350	.320	.319	.357	.277	.315	.367	.319	.283	.321
Hens.....	Lb....	.300	.368	.383	.363	.365	.325	.302	.363	.333	.363
Salmon, canned.....	Lb....	.267	.362	.355	.274	.261	.275	.282	.292	.240	.285
Eggs, strictly fresh.....	Doz.....	.522	.794	.694	.650	.614	.615	.497	.784	.598	.556
Eggs, storage.....	Doz.....	.....	.586	.500	.617	.540	.539	.445	.578	.503	.....
Butter.....	Lb....	.500	.536	.595	.569	.585	.574	.551	.529	.568	.599
Cheese.....	Lb....	.363	.347	.350	.352	.368	.347	.365	.331	.334	.353
Milk.....	Qt.....	.152	.145	.150	.155	.130	.130	.158	.128	.107	.180
Bread.....	16 oz. ¹	.089	.083	.106	.091	.081	.089	.078	.088	.077	.087
Flour.....	Lb....	.067	.070	.068	.076	.070	.067	.065	.074	.065	.071
Corn meal.....	Lb....	.055	.085	.074	.061	.060	.062	.069	.087	.065	.061
Rice.....	Lb....	.121	.126	.118	.092	.118	.123	.119	.121	.120	.106
Potatoes.....	Lb....	.039	.041	.019	.043	.037	.031	.032	.038	.031	.043
Onions.....	Lb....	.058	.053	.043	.053	.051	.052	.057	.051	.048	.058
Beans, navy.....	Lb....	.188	.190	.165	.191	.159	.181	.179	.183	.178	.195
Prunes.....	Lb....	.161	.171	.157	.160	.160	.157	.172	.173	.163	.176
Raisins.....	Lb....	.158	.158	.147	.150	.150	.152	.152	.153	.173	.176
Sugar.....	Lb....	.094	.100	.100	.091	.094	.094	.094	.100	.091	.098
Coffee.....	Lb....	.320	.326	.420	.282	.273	.300	.362	.324	.294	.327
Tea.....	Lb....	.762	.634	.759	.636	.706	.780	.863	.535	.703	.768

Average retail prices Feb. 15, 1918.										
Article.	Unit.	Kansas City, Mo.	Little Rock, Ark.	Los An- geles, Cal.	Louis- ville, Ky.	Man- chester, N. H.	Mem- phis, Tenn.	Minne- apolis, Minn.	New- ark, N. J.	New Haven Conn.
Sirloin steak.....	Lb....	\$0.321	\$0.313	\$0.290	\$0.303	\$0.438	\$0.302	\$0.264	\$0.366	\$0.418
Round steak.....	Lb....	.296	.279	.254	.293	.398	.288	.255	.377	.382
Rib roast.....	Lb....	.233	.260	.236	.231	.269	.243	.214	.302	.318
Chuck roast.....	Lb....	.202	.204	.200	.210	.239	.204	.197	.266	.276
Plate beef.....	Lb....	.167	.197	.158	.183	.210	.183	.149	.195	.....
Pork chops.....	Lb....	.310	.344	.378	.320	.338	.331	.302	.356	.337
Bacon, sliced.....	Lb....	.493	.506	.529	.498	.453	.500	.482	.442	.506
Ham, sliced.....	Lb....	.456	.488	.519	.450	.416	.429	.436	.343	.503
Lard.....	Lb....	.344	.341	.333	.315	.342	.327	.319	.340	.338
Lamb.....	Lb....	.271	.317	.314	.323	.330	.306	.259	.336	.335
Hens.....	Lb....	.293	.329	.378	.373	.378	.318	.315	.367	.383
Salmon, canned.....	Lb....	.292	.295	.326	.250	.295	.312	.331	.345	.283
Eggs, strictly fresh.....	Doz.....	.586	.567	.491	.608	.715	.500	.585	.718	.783
Eggs, storage.....	Doz.....	.500	.517	.480	.498	.605	.....	.493	.572	.573
Butter.....	Lb....	.562	.575	.555	.597	.579	.581	.534	.609	.549
Cheese.....	Lb....	.360	.379	.335	.399	.338	.337	.318	.360	.342
Milk.....	Qt.....	.123	.150	.140	.128	.140	.150	.110	.145	.143
Bread.....	16 oz. ¹	.089	.093	.076	.081	.077	.087	.077	.076	.086
Flour.....	Lb....	.064	.067	.063	.068	.071	.067	.059	.073	.071
Corn meal.....	Lb....	.069	.064	.080	.063	.080	.059	.056	.084	.087
Rice.....	Lb....	.113	.117	.115	.117	.119	.103	.110	.121	.125
Potatoes.....	Lb....	.031	.033	.021	.035	.037	.037	.024	.042	.040
Onions.....	Lb....	.052	.054	.037	.047	.051	.051	.039	.058	.062
Beans, navy.....	Lb....	.185	.184	.166	.185	.185	.191	.176	.187	.190
Prunes.....	Lb....	.145	.171	.151	.169	.160	.166	.150	.174	.179
Raisins.....	Lb....	.145	.149	.141	.142	.153	.144	.144	.150	.154
Sugar.....	Lb....	.100	.095	.088	.091	.097	.096	.091	.096	.105
Coffee.....	Lb....	.291	.326	.312	.265	.342	.301	.309	.298	.329
Tea.....	Lb....	.618	.835	.591	.724	.591	.697	.504	.546	.580

¹ Loaf; 16 ounces, weight of dough.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 29 CITIES
ON FEB. 15, 1918—Concluded.

Article	Unit.	Average retail prices Feb. 15, 1918.									
		New Orleans, La.	Omaha, Nebr.	Portland, Oreg.	Providence, R. I.	Richmond, Va.	Rochester, N. Y.	St. Paul, Minn.	Salt Lake City, Utah.	Scranton, Pa.	Springfield, Ill.
Sirloin steak.....	Lb...	\$0.291	\$0.302	\$0.282	\$0.514	\$0.330	\$0.320	\$0.289	\$0.280	\$0.355	\$0.322
Round steak.....	Lb...	.253	.282	.262	.425	.307	.309	.254	.261	.324	.312
Rib roast.....	Lb...	.243	.234	.254	.333	.270	.263	.237	.236	.281	.251
Chuck roast.....	Lb...	.192	.205	.204	.298	.233	.250	.202	.205	.242	.224
Plate beef.....	Lb...	.166	.157	.167	.....	.198	.191	.146	.170	.179	.190
Pork chops.....	Lb...	.356	.297	.352	.362	.359	.327	.300	.352	.338	.314
Bacon, sliced.....	Lb...	.517	.486	.514	.471	.479	.443	.452	.500	.483	.494
Ham, sliced.....	Lb...	.450	.442	.469	.523	.423	.445	.454	.445	.441	.443
Lard.....	Lb...	.331	.336	.345	.341	.340	.333	.321	.360	.326	.334
Lamb.....	Lb...	.301	.266	.300	.355	.313	.321	.266	.292	.332	.314
Hens.....	Lb...	.368	.322	.337	.397	.371	.377	.297	.348	.387	.280
Salmon, canned.....	Lb...	.330	.285	.336	.305	.238	.294	.298	.299	.302	.268
Eggs, strictly fresh..	Doz...	.485	.577	.507	.735	.617	.710	.589	.604	.705	.645
Eggs, storage.....	Doz...	.....	.545	.425	.586	.500	.570	.514	.550	.540	.575
Butter.....	Lb...	.569	.549	.713	.572	.599	.565	.549	.575	.541	.598
Cheese.....	Lb...	.353	.349	.324	.341	.356	.337	.331	.338	.325	.386
Milk.....	Qt...	.143	.123	.127	.145	.147	.136	.110	.115	.140	.125
Bread.....	16 oz. ¹	.073	.088	.087	.084	.089	.073	.088	.087	.085	.090
Flour.....	Lb...	.075	.060	.057	.068	.072	.067	.062	.054	.071	.064
Corn meal.....	Lb...	.063	.062	.069	.075	.061	.078	.065	.074	.....	.075
Rice.....	Lb...	.108	.110	.118	.119	.127	.128	.120	.129	.121	.126
Potatoes.....	Lb...	.038	.025	.016	.036	.040	.027	.024	.017	.032	.031
Onions.....	Lb...	.045	.045	.032	.050	.061	.045	.038	.045	.061	.049
Beans, navy.....	Lb...	.174	.173	.149	.185	.202	.182	.188	.182	.180	.195
Prunes.....	Lb...	.160	.164	.136	.177	.149	.188	.165	.154	.174	.164
Raisins.....	Lb...	.151	.166	.137	.147	.149	.151	.147	.146	.147	.179
Sugar.....	Lb...	.090	.090	.092	.097	.100	.097	.096	.097	.097	.092
Coffee.....	Lb...	.266	.315	.325	.339	.281	.303	.319	.354	.316	.295
Tea.....	Lb...	.634	.635	.569	.586	.738	.538	.543	.647	.596	.675

¹ Loaf 16; ounces. weight of dough.

BREAD PRICES.

Bread prices, both average and relative, for each month in the years 1913 to 1917, and for January and February, 1918, may be followed in the accompanying table.

The relative price simply means that the average price of bread for the year 1913 was taken as 100 per cent, and the relative for each month obtained by dividing the average price for the year 1913 into the average price for each month. In order to obtain the percentage of increase for any month since 1913, it is necessary only to subtract 100 from the relative number for that month. Bread reached the highest price in August, 1917, when it was 82 per cent higher than in 1913. In December, 1917, bread had dropped to 66 per cent higher than it was in 1913.

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AVERAGE AND RELATIVE RETAIL PRICES OF A 16-OZ. LOAF¹ OF BREAD FOR THE UNITED STATES, BY YEARS AND MONTHS.

Year and month.	Retail price.	
	Average.	Relative.
1913.....	\$0.050	100
1914.....	.056	112
1915.....	.063	126
1916.....	.065	130
1917.....	.082	164
1913: January.....	.050	100
February.....	.050	100
March.....	.050	100
April.....	.050	100
May.....	.050	100
June.....	.050	100
July.....	.050	100
August.....	.050	100
September.....	.050	100
October.....	.050	100
November.....	.050	100
December.....	.050	100
1914: January.....	.055	110
February.....	.055	110
March.....	.055	110
April.....	.055	110
May.....	.055	110
June.....	.055	110
July.....	.055	110
August.....	.056	112
September.....	.057	114
October.....	.057	114
November.....	.057	114
December.....	.058	116
1915: January.....	.060	120
February.....	.063	126
March.....	.063	126
April.....	.063	126
May.....	.064	128
June.....	.063	126
July.....	.063	126
August.....	.063	126
September.....	.062	124
October.....	.062	124
November.....	.062	124
December.....	.062	124
1916: January.....	.062	124
February.....	.062	124
March.....	.064	128
April.....	.062	124
May.....	.062	124
June.....	.062	124
July.....	.062	124
August.....	.064	128
September.....	.068	136
October.....	.072	144
November.....	.075	150
December.....	.070	140
1917: January.....	.070	140
February.....	.071	142
March.....	.072	144
April.....	.075	150
May.....	.085	170
June.....	.085	170
July.....	.088	176
August.....	.091	182
September.....	.088	176
October.....	.088	176
November.....	.088	176
December.....	.083	166
1918: January.....	.083	166
February.....	.083	166

¹ 16 ounces, weight of dough.

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

A comparison of wholesale and retail price changes for important food articles in recent months shows that for most commodities the rise continues to be more pronounced in wholesale than in retail prices. In collecting data for the comparison it was found that in some instances slight differences of grade or quality existed between the articles for which wholesale prices were obtainable and those for which retail prices could be secured. It was found impracticable, also, in most instances to obtain both kinds of quotations for the same date. The retail prices shown are uniformly those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days in advance of the 15th. For these reasons exact comparison of retail with wholesale prices can not be made.

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

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

WHOLESALE AND RETAIL PRICES OF FOOD IN SELECTED CITIES.

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

Article and city.	Unit.	1913: Average for year.	July.			1917					1918	
			1914	1915	1916	Jan.	Feb.	Apr.	July.	Oct.	Jan.	Feb.
Beef, Chicago:												
Steer loin ends....W..	Lb..	\$0.168	\$0.175	\$0.160	\$0.205	\$0.200	\$0.200	\$0.200	\$0.190	\$0.235	\$0.200	\$0.205
Sirloin steak.....R..	Lb..	.232	.260	.258	.281	.265	.273	.293	.302	.306	.302	.304
Price differential.....		.064	.085	.098	.076	.065	.073	.093	.112	.071	.102	.099
Beef, Chicago:												
Steer rounds, No. 2..W..	Lb..	.131	.145	.143	.145	.120	.125	.155	.170	.190	.165	.145
Round steak.....R..	Lb..	.202	.233	.228	.241	.227	.236	.256	.266	.273	.273	.272
Price differential.....		.071	.088	.085	.096	.107	.111	.101	.096	.083	.108	.127
Beef, Chicago:												
Steer ribs, No. 2....W..	Lb..	.157	.165	.145	.175	.160	.170	.210	.200	.230	.200	.200
Rib roast.....R..	Lb..	.195	.212	.213	.229	.223	.228	.241	.246	.247	.254	.251
Price differential.....		.038	.047	.068	.054	.063	.058	.031	.046	.017	.054	.051
Beef, New York:												
No. 2, loins.....W..	Lb..	.158	.183	.170	.200	.180	.200	.190	.190	.275	.235	.235
Sirloin steak.....R..	Lb..	.259	.274	.282	.294	.284	.298	.318	.337	.356	.344	.347
Price differential.....		.101	.091	.112	.094	.104	.098	.128	.147	.081	.109	.112
Beef, New York:												
No. 2, rounds.....W..	Lb..	.121	.135	.135	.145	.130	.140	.170	.175	.190	.180	.190
Round steak.....R..	Lb..	.249	.270	.271	.289	.275	.292	.318	.337	.360	.352	.356
Price differential.....		.128	.135	.136	.144	.145	.152	.145	.162	.170	.172	.166
Beef, New York:												
No. 2, ribs.....W..	Lb..	.151	.165	.160	.180	.160	.175	.200	.190	.275	.235	.230
Rib roast.....R..	Lb..	.218	.225	.227	.243	.238	.247	.270	.279	.298	.294	.295
Price differential.....		.067	.060	.067	.063	.078	.072	.070	.089	.023	.059	.065

WHOLESALE AND RETAIL PRICES OF FOOD IN SELECTED CITIES—Continued.

Article and city.	Unit.	1913: Average for year.	July.			1917					1918	
			1914	1915	1916	Jan.	Feb.	Apr.	July.	Oct.	Jan.	Feb.
Pork, Chicago:												
Loins.....W.	Lb.	\$0.149	\$0.165	\$0.150	\$0.165	\$0.165	\$0.210	\$0.240	\$0.250	\$0.330	\$0.270	\$0.240
Chops.....R.	Lb.	.190	.204	.201	.217	.227	.250	.285	.292	.358	.316	.301
Price differential.....		.041	.039	.051	.052	.062	.040	.045	.042	.028	.046	.061
Pork, New York:												
Loins, western.....W.	Lb.	.152	.163	.153	.165	.170	.195	.235	.235	.300	.265	.270
Chops.....R.	Lb.	.217	.230	.217	.239	.248	.276	.319	.326	.399	.348	.349
Price differential.....		.065	.067	.064	.074	.078	.081	.084	.091	.099	.083	.079
Bacon, Chicago:												
Short clear sides.....W.	Lb.	.127	.139	.113	.159	.158	.174	.218	.247	.318	.301	.284
Sliced.....R.	Lb.	.294	.318	.315	.328	.316	.336	.395	.439	.475	.498	.499
Price differential.....		.167	.179	.202	.169	.153	.162	.177	.192	.157	.197	.215
Ham, Chicago:												
Smoked.....W.	Lb.	.166	.175	.163	.190	.188	.208	.243	.243	.283	.298	.298
Smoked, sliced.....R.	Lb.	.266	.338	.328	.349	.333	.354	.382	.414	.439	.428	.448
Price differential.....		.100	.163	.165	.159	.145	.146	.139	.171	.156	.130	.150
Lard, New York:												
Prime contracts.....W.	Lb.	.110	.104	.080	.133	.159	.167	.215	.201	.246	.246	.265
Pure, tub.....R.	Lb.	.160	.156	.151	.168	.213	.223	.263	.274	.313	.330	.331
Price differential.....		.050	.052	.071	.035	.054	.056	.048	.073	.067	.084	.066
Lamb, Chicago:												
Dressed, round.....W.	Lb.	.149	.170	.190	.190	.200	.215	.220	.260	.270	.240	.250
Leg of, yearling.....R.	Lb.	.198	.219	.208	.231	.232	.252	.263	.287	.314	.306	.306
Price differential.....		.049	.049	.018	.041	.032	.037	.043	.027	.044	.066	.056
Poultry, New York:												
Dressed fowls.....W.	Lb.	.182	.188	.175	.215	.220	.233	.265	.248	.285	.298	.313
Dressed hens.....R.	Lb.	.214	.229	.219	.256	.261	.273	.293	.287	.323	.326	.365
Price differential.....		.032	.032	.044	.041	.041	.040	.028	.039	.038	.028	.052
Butter, Chicago:												
Creamery, extra.....W.	Lb.	.310	.265	.265	.275	.370	.420	.440	.375	.435	.490	.490
Creamery, extra.....R.	Lb.	.362	.312	.322	.335	.438	.466	.484	.432	.487	.544	.547
Price differential.....		.052	.047	.057	.060	.068	.046	.044	.057	.052	.054	.057
Butter, New York:												
Creamery, extra.....W.	Lb.	.323	.280	.270	.285	.395	.450	.450	.395	.443	.510	.515
Creamery, extra.....R.	Lb.	.382	.328	.336	.346	.460	.492	.513	.453	.515	.574	.582
Price differential.....		.059	.048	.066	.061	.065	.042	.063	.058	.072	.064	.067
Butter, San Francisco:												
Creamery, extra.....W.	Lb.	.317	.245	.265	.255	.355	.390	.390	.385	.460	.530	.505
Creamery, extra.....R.	Lb.	.388	.329	.338	.333	.425	.433	.452	.455	.545	.602	.589
Price differential.....		.071	.084	.073	.078	.070	.043	.062	.070	.085	.072	.084
Cheese, Chicago:												
Whole milk.....W.	Lb.	.142	.133	.145	.145	.218	.213	.223	.216	.246	.233	.260
Full cream.....R.	Lb.	.....	.....	.229	.242	.321	.329	.327	.339	.368	.375	.377
Price differential.....		.....	.....	.084	.097	.103	.116	.104	.123	.122	.142	.117
Cheese, New York:												
Whole milk, State.....W.	Lb.	.154	.144	.151	.220	.240	.245	.238	.255	.230	.250	.250
Full cream.....R.	Lb.	.....	.....	.229	.228	.301	.305	.335	.328	.340	.344	.345
Price differential.....		.....	.....	.083	.077	.081	.065	.090	.090	.085	.114	.086
Cheese, San Francisco:												
Fancy.....W.	Lb.	.159	.125	.115	.135	.180	.190	.215	.200	.220	.255	.255
Full cream.....R.	Lb.	.....	.....	.200	.229	.242	.267	.297	.297	.316	.335	.329
Price differential.....		.....	.....	.085	.094	.062	.077	.082	.097	.066	.080	.074
Milk, Chicago:												
Fresh.....W.	Qt.	.038	.036	.037	.036	.045	.043	.054	.047	.074	.070	.067
Fresh, bottled.....R.	Qt.	.080	.080	.080	.081	.100	.090	.100	.100	.129	.119	.119
Price differential.....		.042	.044	.043	.045	.055	.047	.046	.053	.055	.049	.052
Milk, New York:												
Fresh.....W.	Qt.	.035	.030	.030	.031	.051	.050	.049	.050	.072	.081	.077
Fresh, bottled.....R.	Qt.	.090	.090	.090	.090	.100	.109	.109	.114	.138	.150	.146
Price differential.....		.055	.060	.060	.059	.049	.059	.060	.064	.066	.069	.069
Milk, San Francisco:												
Fresh.....W.	Qt.	.039	.039	.038	.038	.038	.038	.038	.043	.059	.066	.066
Fresh, bottled.....R.	Qt.	.100	.100	.100	.100	.100	.100	.100	.100	.121	.121	.121
Price differential.....		.061	.061	.062	.062	.062	.062	.062	.057	.062	.055	.055
Eggs, Chicago:												
Fresh, firsts.....W.	Doz.	.226	.188	.168	.218	.485	.440	.305	.310	.370	.565	.500
Strictly fresh.....R.	Doz.	.292	.261	.248	.296	.525	.503	.376	.406	.469	.651	.593
Price differential.....		.066	.073	.080	.078	.040	.063	.071	.096	.099	.086	.093
Eggs, New York:												
Fresh, firsts.....W.	Doz.	.249	.215	.200	.241	.505	.448	.330	.350	.400	.645	.568
Strictly fresh.....R.	Doz.	.397	.353	.326	.372	.667	.591	.424	.477	.627	.808	.697
Price differential.....		.148	.138	.126	.131	.162	.143	.094	.127	.227	.163	.129
Eggs, San Francisco:												
Fresh.....W.	Doz.	.268	.230	.220	.240	.380	.300	.280	.320	.435	.610	.410
Strictly fresh.....R.	Doz.	.373	.338	.310	.333	.480	.390	.374	.392	.608	.710	.489
Price differential.....		.105	.108	.090	.093	.100	.090	.094	.072	.173	.100	.079

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

Article and city.	Unit.	1913: Average for year.	July.			1917					1918	
			1914	1915	1916	Jan.	Feb.	Apr.	July.	Oct.	Jan.	Feb.
Meal, corn, Chicago:												
Fine.....W..	Lb..	\$0.014	\$0.016	.....	\$0.019	\$0.024	\$0.025	\$0.036	\$0.045	\$0.052	\$0.051	\$0.053
Fine.....R..	Lb..	.029	.028	\$0.031	.031	.042	.041	.050	.058	.071	.070	.069
Price differential.....		.015	.012	.....	.012	.018	.016	.014	.013	.019	.019	.016
Beans, New York:												
Medium, choice.....W..	Lb..	.040	.040	.058	.068	.108	.113	.130	.154	.138	.141	.134
Navy, white.....R..	Lb..	.....	.....	.081	.113	.149	.150	.162	.188	.185	.185	.183
Price differential.....		.....	.....	.023	.015	.041	.037	.032	.034	.047	.044	.049
Potatoes, Chicago:												
White.....W..	Bu..	.614	1.450	.400	.975	1.750	2.400	2.800	2.625	1.135	1.185	1.245
White.....R..	Bu..	.900	1.640	.700	1.359	2.370	3.000	3.455	2.975	1.660	1.680	1.740
Price differential.....		.286	.190	.300	.381	.620	.600	.655	.350	.525	.495	.495
Rice, New Orleans:												
Head.....W..	Lb..	.050	.054	.049	.046	.048	.048	.049	.071	.077	.088	.081
Head.....R..	Lb..	.....	.....	.075	.074	.074	.074	.088	.101	.100	.106	.108
Price differential.....		.....	.....	.026	.028	.026	.025	.039	.030	.023	.018	.027
Sugar, New York:												
Granulated.....W..	Lb..	.043	.042	.059	.075	.066	.066	.081	.074	.082	.073	.073
Granulated.....R..	Lb..	.049	.046	.063	.079	.074	.076	.087	.084	.097	.097	.091
Price differential.....		.006	.004	.004	.004	.008	.010	.006	.010	.015	.024	.018

¹ Good to choice.

Wholesale and retail prices, expressed as percentages of the average money prices for 1913, are contained in the table which follows. A few articles included in the preceding table are omitted from this one, owing to the lack of satisfactory data for 1913. It will be seen from the table that since the beginning of 1917 the retail prices of most of the commodities included in the exhibit have fluctuated at a lower percentage level, as compared with their 1913 base, than have the wholesale prices. This is particularly noticeable in the case of pork, bacon, lard, dressed lamb, butter, milk, eggs, corn meal, and potatoes. For corn meal, especially, there has been a much smaller percentage of increase in the retail than in the wholesale price. Comparing February, 1918, prices with the average for 1913, it is seen that only 4 articles of the 25 included in the table show a larger per cent of increase in the retail than in the wholesale price. These are beef in Chicago (three price series) and granulated sugar in New York. In several of the months of 1917 the retail prices of these articles were relatively lower than were the wholesale prices.

While the percentage of increase in retail prices was less than that in wholesale prices for most of the articles, it should be noted that in the majority of cases the margin between the wholesale and the retail price in February, 1918, was considerably greater than in 1913. The following table shows, for example, that the wholesale price of short clear side bacon increased 124 per cent between 1913 and February, 1918, while the retail price of sliced bacon increased only 70 per cent. The preceding table shows, however, that the difference was 16.7 cents per pound in 1913 and 21.5 cents per pound in February, 1918, or 4.8 cents more at the latter date than at the former. It is also seen that the wholesale price in February, 1918, had increased 15.7 cents over the 1913 price, while the retail price had increased 20.5 cents.

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

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

Article and city.	1913: Average for year.	July.			1917					1918	
		1914	1915	1916	Jan.	Feb.	Apr.	July.	Oct.	Jan.	Feb.
Beef, Chicago:											
Steer loin ends (hips).....W..	100	104	95	122	119	119	119	113	140	119	122
Sirloin steak.....R..	100	112	111	121	114	118	126	130	132	130	131
Beef, Chicago:											
Steer rounds, No. 2.....W..	100	111	109	111	92	95	118	130	145	126	111
Round steak.....R..	100	115	113	119	112	117	127	132	135	135	135
Beef, Chicago:											
Steer ribs, No. 2.....W..	100	105	92	111	102	108	134	127	146	127	127
Rib roast.....R..	100	109	109	117	114	117	124	126	127	130	129
Beef, New York:											
No. 2 loins, city.....W..	100	116	108	127	114	127	120	120	174	149	149
Sirloin steak.....R..	100	106	109	114	110	115	123	130	137	133	134
Beef, New York:											
No. 2 rounds, city.....W..	100	112	112	120	107	116	140	145	157	149	157
Round steak.....R..	100	108	109	116	110	117	127	135	145	141	143
Beef, New York:											
No. 2 ribs, city.....W..	100	109	106	119	106	116	132	126	182	156	152
Rib roast.....R..	100	103	104	111	109	113	124	128	137	135	135
Pork, Chicago:											
Loins.....W..	100	111	101	111	111	141	161	168	221	181	161
Chops.....R..	100	107	106	114	119	132	150	154	188	166	158
Pork, New York:											
Loins, western.....W..	100	107	101	109	112	128	155	155	197	174	178
Chops.....R..	100	106	100	110	114	127	147	150	184	160	161
Bacon, Chicago:											
Short clear sides.....W..	100	109	89	125	124	137	172	194	250	237	224
Sliced.....R..	100	108	107	112	107	114	134	149	162	169	170
Hams, Chicago:											
Smoked.....W..	100	105	98	114	113	125	146	146	170	180	180
Smoked, sliced.....R..	100	127	123	131	125	133	144	156	165	161	168
Lard, New York:											
Prime, contract.....W..	100	95	73	121	145	152	195	183	224	224	241
Pure, tub.....R..	100	98	94	105	133	139	164	171	196	206	207
Lamb, Chicago:											
Dressed, round.....W..	100	114	128	128	134	144	148	174	181	161	168
Leg of, yearling.....R..	100	111	105	117	117	127	133	145	159	155	155
Poultry, New York:											
Dressed fowls.....W..	100	103	96	118	121	128	146	136	157	164	172
Dressed hens.....R..	100	103	102	120	122	128	137	134	151	152	171
Butter, Chicago:											
Creamery, extra.....W..	100	85	85	89	119	135	142	121	140	158	158
Creamery, extra.....R..	100	80	89	93	121	129	134	119	135	150	151
Butter, New York:											
Creamery, extra.....W..	100	87	84	88	122	139	139	122	137	158	159
Creamery, extra.....R..	100	86	88	91	120	129	134	119	135	150	152
Butter, San Francisco:											
Creamery, extra.....W..	100	77	84	80	112	123	123	121	145	167	159
Creamery, extra.....R..	100	85	87	86	110	112	116	117	140	155	152
Milk, Chicago:											
Fresh.....W..	100	95	97	95	118	113	142	124	195	184	176
Fresh, bottled, delivered..R..	100	100	100	101	125	113	125	125	161	149	149
Milk, New York:											
Fresh.....W..	100	86	86	89	146	143	140	143	206	231	220
Fresh, bottled, delivered..R..	100	100	100	100	111	121	121	127	153	167	162
Milk, San Francisco:											
Fresh.....W..	100	100	97	97	97	97	97	110	151	169	169
Fresh, bottled.....R..	100	100	100	100	100	100	100	100	121	121	121
Eggs, Chicago:											
Fresh, firsts.....W..	100	83	74	96	215	195	135	137	164	250	221
Strictly fresh.....R..	100	89	85	101	180	172	129	139	161	223	201
Eggs, New York:											
Fresh, firsts.....W..	100	86	80	97	203	180	133	141	161	259	228
Strictly fresh.....R..	100	89	82	94	168	149	107	120	158	204	176
Eggs, San Francisco:											
Fresh.....W..	100	86	82	90	142	112	105	119	162	228	153
Strictly fresh.....R..	100	91	83	89	129	105	100	105	163	190	131
Meal, corn, Chicago:											
Fine.....W..	100	114	.....	136	171	179	257	321	371	364	379
Fine.....R..	100	97	107	107	145	141	172	200	245	241	238
Potatoes, Chicago:											
White, good to choice.....W..	100	236	65	159	285	391	456	428	185	193	203
White.....R..	100	182	78	151	263	333	384	331	184	187	193
Sugar, New York:											
Granulated.....W..	100	98	137	174	153	153	188	172	191	170	170
Granulated.....R..	100	94	129	161	151	155	178	171	198	198	186

COMPARISON OF RETAIL PRICES IN THE UNITED STATES AND OTHER 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. For Great Britain, Norway, and Sweden the index numbers are reproduced as published in the original sources, while those for Austria and Germany have been rounded off to the nearest whole number from figures published in the British Labor Gazette. All of these are shown on the July, 1914, base in the sources from which the information is taken. The index numbers here shown for the remaining countries have been obtained by dividing the index for July, 1914, as published, into the index for each month specified in the table. As indicated in the table, some of these index numbers are weighted and some are not, while the number of articles included differs widely. They should not, therefore, be considered as closely comparable one with another.

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

[Prices for July, 1914=100.]

Year and month.	United States: 15 foodstuffs, 45 cities. Weighted.	Australia: 46 food- stuffs, 30 towns. Weighted.	Austria: 18 food- stuffs, Vienna. Weighted.	Canada: 29 food- stuffs, 60 cities. Weighted.	France: 13 foodstuffs, cities over 10,000 popu- lation (except Paris). Weighted.	Germany: 19 food- stuffs, Berlin. Weighted.
1914.						
July.....	100	100	100	100	¹ 100	100
October.....	103	99	104	108	.....	116
1915.						
January.....	101	107	121	107	¹ 110	131
April.....	97	113	166	105	.....	157
July.....	98	131	179	105	¹ 123	170
October.....	101	133	217	105	.....	193
1916.						
January.....	105	129	.....	112	¹ 133	189
April.....	107	131	222	112	¹ 137	220
July.....	109	130	.....	114	¹ 141	213
October.....	119	125	.....	125	¹ 146	209
1917.						
January.....	125	125	272	138	¹ 154	.....
February.....	130	126	.....	141	.....	.....
March.....	130	128	.....	144	.....	.....
April.....	142	127	275	145	¹ 171	.....
May.....	148	127	288	159	.....	.....
June.....	149	127	312	160	.....	.....
July.....	143	128	337	157	.....	.....
August.....	146	129	315	157	.....	.....
September.....	150	129	.....	157	.....	.....
October.....	154	.....	.....	159	.....	.....
November.....	152	.....	.....	163	.....	.....
December.....	154	.....	.....	165	.....	.....

¹Quarter beginning that month.

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

Year and month.	Great Britain: 21 food- stuffs, 600 towns. Weighted.	Italy: 7 food- stuffs, 43 cities (variable). Not weighted.	Netherlands: 29 articles, 40 cities. Not weighted.	New Zealand: 59 food- stuffs, 25 towns. Weighted.	Norway: 24 (21 foods) articles, 20 towns (variable). Not weighted.	Sweden: 21 articles, 44 towns. Weighted.
1914.						
July.....	100	100	¹ 100	100	100	100
October.....	112	104	² 107	102	³ 110	³ 107
1915.						
January.....	118	108	114	111	³ 118	³ 113
April.....	124	113	123	113	³ 125	³ 121
July.....	132 ¹	120	131	112	³ 129	³ 124
October.....	140	127	128	112	³ 134	³ 128
1916.						
January.....	145	133	135	116	143	³ 130
April.....	149	132	142	118	155	³ 134
July.....	161	132	150	119	176	³ 142
October.....	168	132	158	120	182	³ 152
1917.						
January.....	187	144	165	127	.....	160
February.....	189	154	165	126	.....	166
March.....	192	161	169	126	204	170
April.....	194	164	170	127	212	175
May.....	198	167	180	128	227	175
June.....	202	171	184	128	.....	175
July.....	204	172	188	127	.....	177
August.....	202	.....	.....	127	261	181
September.....	206	188	.....	129	.....	187
October.....	197	.....	.....	.....	273	192
November.....	206	.....	.....	.....	278	200
December.....	205	.....	.....	.....	.....	.....

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

COST OF LIVING IN THE NEW YORK SHIPBUILDING DISTRICT.

The Bureau of Labor Statistics, in cooperation with the Shipbuilding Wage Adjustment Board of the Emergency Fleet Corporation, has just completed a study of the cost of living in shipbuilding centers in the second district. This district comprises New York City and adjacent localities, in which reside a considerable number of families of workers in shipbuilding establishments.

Schedules covering in detail the income and expenditure for the year 1917 of 608 families were secured through personal visits of the agents of the Bureau of Labor Statistics to the homes of families of workers in shipyards and of other families in the localities in which shipbuilding workers reside.

The figures in the second column of the table show the average expenditures per family for the year 1917 for each of the principal items that enter into the cost of living. The third column shows in the form of percentages the proportion of the total amount expended for each item. The last three columns show the average per cent of increase in the retail prices of each item, in 1915, 1916, and 1917 above the prices in 1914. The increase in these retail prices as shown in this column was obtained by personal visits of the agents of the

bureau from retail dealers in these localities patronized by workers in shipbuilding establishments.

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

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

AVERAGE EXPENDITURES OF 608 FAMILIES IN THE NEW YORK SHIPBUILDING DISTRICT IN 1917 FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING, AND PER CENT OF INCREASE IN THE RETAIL PRICE OF EACH IN 1915, 1916, AND 1917 ABOVE THE PRICES IN 1914.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in 1915, 1916, and 1917 above the prices in 1914.		
	Average.	Per cent.	1915	1916	1917
Clothing:					
Males.....	\$109.76	8.14	4.78	20.32	51.40
Females.....	90.31	6.70	4.87	24.73	57.63
Total.....	200.07	14.84	4.82	22.31	54.21
Furniture and furnishings.....	43.58	3.23	8.43	27.60	56.47
Food.....	607.02	45.01	1.34	16.26	55.28
Housing.....	174.14	12.91	.10	.05	2.63
Fuel and light.....	62.21	4.61	.06	10.98	19.92
Miscellaneous.....	261.62	19.40	1.97	14.91	44.68
Total.....	1,348.64	100.00	1.97	14.91	44.68

COST OF LIVING AND WAGES IN GERMANY.¹

GENERAL RELATION OF WAGES TO COST OF LIVING.

The Neue Zeit, the weekly journal of the German Social-Democratic Party, in its issue of December 7, 1917, contains a very interesting article on the relation of wages to the cost of living in Germany during the war,² extracts of which are given below:

"The longer the war lasts," says the writer, "the more are increasing masses of the nation becoming aware of the fact that these same masses—skilled and unskilled workmen, salaried employees, Government officials, etc.—have to bear the costs of the war and in

¹Translated by Alfred Maylander.

²Die Neue Zeit. Warenpreise und Arbeiterlöhne, by A. Ellinger. Vol. 36, Pt. 1, No. 10. Stuttgart, Dec. 7, 1917.

part are being reduced to extreme poverty while other circles of the population derive great profit from the war and enormously increase their income and their wealth. Among these latter are not only the large contractors of war supplies and industrial magnates who during the war have obtained millions over millions from the State and the masses of the population, but commerce and agriculture have also greatly profited from the war. The large subscriptions of war loans by these circles, the unprecedented large deposits in rural savings banks, the extensive lifting of rural mortgages, etc., furnish the best proof of this fact.

"I do not mean to assert," continues the writer, "that the accumulation of immense wealth in the hands of a few is solely due to the profiteering tendencies of the fortunate owners of this wealth, that it is solely the fruit of shameless exploitation and fraud. In some cases this may be true, but in general this development has naturally resulted from the essential nature of capitalism and the present-day right of ownership, as well as from the isolation and financial condition of Germany. This development is based on the facts that one part of the nation has in its hand the means of production required for the entirety of the nation, that another part owns the land which is to provide nourishment for the entirety, and that at present this land does not produce as much as is needed to sustain life in the usual manner, and, finally, that consequent to our isolation from the world's market we can not supplement this deficit from abroad. These combined facts put in a much greater measure the nonpossessing classes at the mercy of the possessing classes and render them much more tributary to the latter than was the case in normal times.

"The possibility for such enormous profits as have been witnessed during the war was given through the continuous upward trend of prices since the outbreak of the war. The Government is partly guilty for this increase of prices in so far as one may speak of guilt in the development of economic matters. Not only has the Government through extensive circulation of paper money contributed to the depreciation of German currency and thereby lessened its purchasing power but also at the beginning of the war it paid fabulously high prices for war materials in order to accelerate the adaptation of industry to war needs. This, it is true, brought about the transition of German industry from a peace to a war basis, but at the same time it had the effect of making that part of industry which is not employed in the production of war materials want to reap like profits as the war industry proper. Under the pressure of the consuming masses of the population the Government has in some measure counteracted this endeavor through the fixing of maximum prices; but it has done so unwillingly and only proceeded against the worst ex-

cesses in this respect. This procedure is in itself entirely comprehensible. The Government needs money for the conduct of the war. It, however, can not dare to raise the required sums through direct taxation of the individual citizens. It must raise the money through bond issues. As such Government loans could never be fully disposed of through sums subscribed by the great mass of the poorer classes of the population, it can only suit the Government if industry, commerce, and agriculture extract these sums from the great masses of the population through "good" prices, and put them at its disposal in the form of subscriptions of war loans. In this manner the individual citizen hardly notices that ultimately it is he who finances the war. As a matter of fact, industrial magnates, banks, landowners, business men, etc., have only apparently subscribed the greater part of the war loans; in reality it is the great mass of the population which by hard work and privation has raised the sums required for these loans and given to the fortunate owners of the land, of capital, and of the means of production the opportunity to enrich themselves at its expense.

"But the consumers themselves are partly responsible for the high prices. On the outbreak of the war they began hoarding supplies and thus created a scarcity of supplies and a consequent inflation of prices at a time when actual conditions did not warrant it. Under the capitalistic régime prices will always rise when the demand for goods is greater than the supply. The more scarce and indispensable the goods in question are the more will the prices rise. And prices will, of course, rise beyond all bounds if a general scarcity of supplies sets in and the individual can barely satisfy his hunger. In such a case the increase of the price of one article will automatically extend to all other articles without regard to the fact whether the costs of production justify such an increase or not.

"When, after the outbreak of the war, conditions had come to such a point the consumers began to clamor for maximum prices. But only too soon they discovered that maximum prices are by no means a cure-all. Immediately after maximum prices had been decreed a large part of the well-to-do consumers, in conjunction with producers and dealers, set out to evade them. Thus it came about that articles for which maximum prices had been fixed disappeared over night from the market and were obtainable only for those who did not care how high a price they had to pay. In order to stop this evasion of the law the rationing of all articles that could be rationed was demanded so that everybody would get some of the available supplies. But even in rationed articles a flourishing trade is sometimes carried on at really exorbitant prices. Flour, butter, and other foodstuffs sometimes bring in illicit trade five times as much

and more as they would bring if acquired legally by means of rationed distribution.

"As set forth here various circumstances, among which should also be mentioned the low quotation abroad of German exchange, contribute to the continuous increase of prices. This increase of prices is tantamount to a depreciation of German money. The workman, who with his wages must buy the necessities of existence, notices this by the fact that his wages are no longer sufficient to purchase the necessities of life. As he is not willing to die of starvation he finds himself facing the necessity of demanding higher wages. Such a demand is, however, resisted by the employers and often most strongly by those employers who have been doing a flourishing business during the war and have actually profited by the existing high prices. Even if the employers are reasonable enough to grant wage increases and high-cost-of-living bonuses, these are without exception not sufficient to counterbalance the increase in prices and the depreciation of the German money. Employers, moreover, who have granted wage increases, endeavor, as a rule, to shift them upon the consumer, and if possible, with a profit for themselves. This causes a further increase of prices and new wage demands become necessary; and this process goes on without end. The workman soon notices that in the long run he can not counterbalance the increase of prices through wage increases granted to him, because during the war the owner of the means of production always has the advantage of him. He is the owner of the products without which the workman can not live; thanks to Germany's isolation from the world's markets he has a monopoly of the sale of these products and he only sells them at prices giving him the same or rather a better profit than in prewar times.

"Thus the course of commodity prices and of wages during the war has become a real tragedy for the working class in the widest sense, whether they are wage earners, salaried employees, or officials. In August, 1917, according to Calwer, the cost of the weekly family ration was 54.67 marks (\$13.01), as compared with 25.12 marks (\$5.98) in July, 1914, that is to say, it has risen during the war more than 117 per cent. It must, moreover, be noted that the commodities on which Calwer bases his calculation are mostly rationed commodities, of which the supply is so inadequate that they do not furnish sufficient sustenance. If the workingman wants barely to survive and retain his working capacity he must buy considerable quantities of nonrationed commodities or else procure rationed commodities through illegal channels, and in both these cases he pays far higher prices than Calwer indicates. To this must be added the fact that the quality of a large number of food articles such as flour,

bread, potatoes, coffee, etc., has deteriorated. Moreover, the increase in the cost of fuel, clothing, shoes, and household necessities of all kinds has been far more rapid than the increase of the articles represented by the Calwer index numbers. Certain goods have increased in price by 500, 800, and even 1,000 per cent, and without exaggeration the average increase of the cost of living may be estimated at between 200 and 300 per cent.

"Meantime, according to an investigation of the Imperial Statistical Office, wages of the great mass of working people have on an average barely increased by 50 per cent.¹ The data published by this office show that in September, 1916, i. e., during the third year of the war, the average wages of male workers had increased by 46 per cent and those of female workers by 54.1 per cent. These figures are confirmed by a comprehensive investigation by the Central Council of the Hirsch-Duncker trade-unions as to the increase of wage of male workers in the more important German industries. This investigation, which compares the wages paid in January, 1917, with those current before the outbreak of the war, shows that, although metal workers' wages had increased by 69 per cent in Greater Berlin, in the other Provinces of Prussia and in other States of the Empire wage increases in this trade were much lower, and in some instances did not exceed 16 per cent. In the chemical industries of the Bitterfeld district time wages had increased by 26 to 35 per cent and piece-work wages by 34 per cent. The trade-union leader Hartman estimates that in the tobacco industry wage increases during the period 1913-1915 amounted to 4 per cent and in 1916 to between 10 and 20 per cent. According to an investigation of the Federation of German Textile Workers the average weekly wage of female workers in the Adorf district was 15.92 marks (\$3.79) in July, 1917, while in the same month weekly wages of between 9 and 10 marks (\$2.14 and \$2.38) were still common in Krimmitschau.

"These data demonstrate plainly that the so-called 'high' wages of workers are a myth. A relatively large number of capitalists, manufacturers, dealers, and landowners have doubled and trebled their income and wealth, but very small is the number of workers whose wages have been so increased that they were not forced to lower their standard of living, i. e., whose present-day wages have the same purchasing power as their prewar wages. The great mass of the working people were only able to obtain insignificant wage increases which were entirely insufficient to make up for the increased cost of living. The value of their labor depreciated during the war in the same ratio in which the income, ground rent, and profits of a large number of capitalists and landowners increased. If in spite of these facts the official organs and secretaries of employers' associations

¹ See MONTHLY REVIEW, December, 1917, pp. 40-50.

raise the cry that wages must be lowered and intimate that otherwise German industry will go under, it must be characterized as an impudence, which is to be combated with the strongest means at the disposal of the workers. As long as the industries are able to pocket such profits as those which they have reaped during the war German industry will not perish, but will fatten in a manner dangerous to the public weal, while, on the other hand, one only need to take a look at the German workmen in order to perceive that they suffer greatly from undernutrition, that they are degenerating, and that in spite of their so-called 'high' wages misery looks out of their eyes."

The writer concludes his article with the following words: "Whoever raises the question of a reduction of wages should rather make it his first care to bring the cost of living, if only approximately, back to its former level. When this has been accomplished the workmen will be willing to discuss lower wages. The present 'high' wages do not benefit them at all. The workmen are only well off when their wages, be they high or low, enable them to live in a manner fit for human beings. To-day they can not do so in spite of their apparently high wages, and if the prices of foodstuffs remain at their present level or continue to increase it will become the sacred duty of the workmen to themselves and to the German nation to see to it that their wages are still further increased. For the strength of the nation is based upon the health of the working classes, and thanks to the lessened purchasing power of the wages and the general scarcity of all necessities their health has been undermined to a serious degree."

WAGES AND COST OF LIVING OF METAL WORKERS.

The Leipziger Volkszeitung¹ complains that the wages of metal workers in Leipzig have not kept pace with the rise in the cost of living; that employers have resorted to all kinds of chicanery in order to frustrate those provisions of the national auxiliary service law which were enacted for the protection of labor; and that despite the enormous profits of the metal works, which in several cases have allowed an increase in dividend from 6 and 8 per cent in 1915 to 20 and even 40 per cent in 1916, the employers have thoroughly organized themselves and have determined not to raise wages.

In support of the fact that the metal workers do not receive wages equivalent to the salaries of "cabinet members" (*Ministerialgehälter*), as the employers would like to make the public believe, the Volkszeitung quotes some statistical data. In a collective agreement concluded in April, 1917, the following minimum weekly wage rates were fixed: 35 marks (\$8.33) for male juvenile workers 16 to 17 years of age, 44 marks (\$10.47) for unskilled and 55 marks (\$13.09) for skilled adult male workers, and 25 marks (\$5.95) for female workers.

¹ Leipziger Volkszeitung. Die "Ministergehälter" der Metallarbeiter. Leipzig, Dec. 21, 1917.

According to the wage statistics of the local Leipzig (city) sick fund, 19,744 male and 11,938 female metal workers were insured in the fund at the end of September, 1917. If from these figures are deducted 3,798 male juvenile workers under 16 years of age and 821 female juvenile workers there remain 15,946 male and 11,117 female workers who should have received at least the above minimum rates of wages. The wage statistics of the sick fund show, however, that 2,117 adult male and 5,055 adult female workers earned lower wages than the minimum wages. In other words, over 14 per cent of the male workers and 45 per cent of the female workers must have been rated by the employers as not coming up to the minimum of efficiency. In taking up the problem of the cost of living the Volkszeitung states that one argument used by the employers in refusing to grant wage increases is that on the basis of the officially fixed maximum prices the cost of living in Germany has gone down in comparison with what it was last spring. In advancing this argument they point to the index numbers on cost of living by Calwer, the well-known German statistician. They forget, however, to quote Calwer's significant statement that, as the available supply of food is far below the demand, people have perforce to buy at prices above the maximum prices, and also his conclusion: "The cost of living has gone up considerably of late."

The actual cost of living is shown in the Volkszeitung by means of cost-of-living data furnished the German Metal Workers' Union. The following table gives the expenditure of a family of four persons in Leipzig in the week September 16 to 22, 1917:

WEEKLY COST OF LIVING OF A METAL WORKER'S FAMILY OF FOUR PERSONS IN LEIPZIG FOR THE THIRD WEEK OF SEPTEMBER, 1917.

	Quantity.	Amount of expenditure.		Quantity.	Amount of expenditure.
Rationed foodstuffs:			Nonrationed foodstuffs—Con.		
Bread.....lbs..	17.6	\$0.61	Cooking fruit.....lbs..	6.6	\$0.69
Meat.....lbs..	1.8	.83	Table fruit.....lbs..	7.7	1.00
Butter.....lb..	.4	.31	Spices.....		.12
Eggs.....doz..	.4	.33	Salad.....		.12
Jam.....lb..	.8	.17	Salt.....lbs..	2.2	.06
Macaroni.....lb..	.3	.04	Coffee substitutes.....lb..	.8	.14
Oat foods.....lb..	.8	.04			
Potatoes.....lbs..	30.9	.67	Total.....		3.69
Margarine.....lb..	.1	.06			
Sugar.....lbs..	1.5	.10	Other expenditures:		
Milk.....qts..	5.5	.50	Clothing, shoes, etc.....		5.00
Cheese.....lb..	.3	.21	Wood and coal.....		.19
Soap.....lb..	.1	.05	Gas.....		.33
Washing powder.....lb..	.6	.07	Trade-union dues, newspapers.....		.30
Total.....		4.04	Insurance.....		.32
			Rent (3 rooms and kitchen).....		1.90
Nonrationed foodstuffs:			Total.....		8.09
White cabbage.....lbs..	4.4	.24			
Red cabbage.....lbs..	4.4	.28	Cost of additional food rations		
Carrots.....lbs..	4.4	.28	allowed to heavy workers.....		.87
Onions.....lbs..	4.4	.24			
Onions.....lb..	.6	.04	Grand total.....		16.69
Tomatoes.....lbs..	4.4	.57			

The data included in this table refer only to the most essential necessities; they leave out such incidental expenses as amusements, car fare, gifts, etc. The following table shows in more summarized form the cost of living of a family of four persons in eight other large cities of Germany so as to permit comparison with the cost of living in Leipzig:

WEEKLY COST OF LIVING OF A METAL WORKER'S FAMILY OF FOUR PERSONS IN NINE LARGE GERMAN CITIES FOR THE THIRD WEEK OF SEPTEMBER, 1917.

Locality.	Expenditures for food.			Miscellaneous expenditures.	Total.
	Rationed food-stuffs.	Non-rationed food-stuffs.	Additional rations for heavy workers.		
Berlin.....	\$5.27	\$3.03	\$0.37	\$3.16	\$16.83
Cologne.....	5.51	2.58	.43	7.16	15.68
Düsseldorf.....	4.35	3.16	.15	8.51	16.17
Elberfeld.....	4.26	2.21	.75	8.34	15.56
Bremen.....	4.73	2.68	.36	7.40	15.17
Bielefeld.....	4.82	2.23	.43	7.00	14.48
Breslau.....	4.90	1.98	.50	7.08	14.46
Essen.....	3.42	1.73	.49	8.60	14.24
Leipzig.....	4.04	3.69	.87	8.09	16.69

A comparison of the figures given in the preceding table shows that the cost of living is highest in Berlin and that Leipzig comes in second place. Leipzig metal works, however, consider 1.35 marks (32 cents) a suitable wage for skilled workers and only a small number of piece-workers earn as much as 2 marks (47½ cents) per hour, while metal workers in Berlin receive much higher wages. The cost of living is lowest in Essen, probably owing to the fact that the Krupp works furnish housing and food to most of their workmen at cost.

The cost of living figures for September, 1917, shown in the preceding tables indicate a considerable increase over the cost of living figures for April and July, 1916, published in the *Reichs-Arbeitsblatt* and reproduced in the *MONTHLY REVIEW* of March, 1918. The latter data already led to the conclusion that the majority of workmen's and low-salaried employees' families were living beyond their income from earnings and according to the data furnished by the metal workers' federation for September, 1917, conditions governing the cost of living in Germany seem to have gone from bad to worse.

HIGHER BASIC WAGES OR HIGH-COST-OF-LIVING BONUSES.

In an article under the above title in the *Neue Zeit*¹ Emil Dittmer discusses the question whether higher basic wages or high-cost-of-living bonuses are preferable from the worker's point of view.

¹ Die Neue Zeit. Wochenschrift der deutschen Sozialdemokratie. "Höhere Grundlöhne oder Teuerungszulagen" by Emil Dittmer. Vol. 36, part 1, No. 4. Stuttgart, Oct. 26, 1917.

By way of introduction the writer points out the rapid increase during the second quarter of 1917 of the membership of trade-unions. During this quarter, to quote only a few examples, the organization of the metal workers gained 33,000 members, that of the factory workers 8,000, of the building trades 7,000, of the woodworkers 4,000, of the miners 13,000, of the textile workers 6,000, etc. If the many difficulties which during the war are hampering the development of trade-unions are taken into consideration these figures speak eloquently for the attractive power of the trade-unions. For the third quarter of 1917 the three great trade-union movements of Germany (the free, Christian, and Hirsch-Duncker trade-unions) report also a similar increase of membership. The exultation of the German Employers' Journal (*Deutsche Arbeitgeberzeitung*) and of other papers friendly to employers' interests over the downfall of trade-unionism was therefore entirely premature.

With this increase of their membership the trade-unions enter into a new phase. Hitherto their activities were nearly exclusively centered upon preventing a lowering of the worker's standard of living. "From now on," says the writer, "they must with all means at their disposal try to retain the advantages which they have gained and even improve them, for the employers are already busily engaged in influencing public opinion in favor of a reduction of the war wages." The *Berliner Börsenzeitung* (Berlin Stock Exchange Journal) said lately:

"The nearer Germany gets to peace and to restoration of its international trade relations, the more must we work for a gradual reduction of the present abnormal wages, if we intend to be able to compete successfully with foreign production. The present high wages and the large share they form of the costs of production make it appear doubtful whether we will be able to produce as cheaply as will be necessary to reconquer the world's markets.

The *Deutsche Arbeitgeberzeitung*, of course, readily made this argument its own and added to it: "The working classes should comprehend that under the present circumstances it is to their own interest that they be contented." To which the writer replies that German organized labor, as represented by the free, Christian, and Hirsch-Duncker trade-unions, will never comprehend why wages should be reduced first before a reduction of the prices of commodities has taken place, and that this latter prerequisite will not be given for many months after the termination of the War.

The writer then proceeds to call attention to the tendency during the War of granting temporary high-cost-of-living bonuses and bonuses graduated in proportion to the size of the family. This tendency is considered harmful, as it aims to keep basic wages as low as

possible. The initiative for this tendency was given by the State and the municipalities. High-cost-of-living bonuses, as a rule, are being granted with the mental reservation of rescinding them after the War, while the allowance of bonuses to the married and those having children is based on an entirely false idea of what constitutes a wise attitude to the problem of population. It is significant that even a high public official, viz, Dr. Luppe, the mayor of Frankfort on the Main, has severely criticized the present system of remuneration of medium and low-salaried Government employees and workmen in Prussia.¹ The new Prussian appropriation law of April 1, 1917, provides for a monthly high-cost-of-living bonus of 12 marks (\$2.86) for the first child, 13 marks (\$3.09) for the second child, 14 marks (\$3.33) for the third child, and so on. An employee or workman with eight children, for instance, would receive a total bonus of 139 marks (\$33.08) for his children. This discrimination in favor of families with numerous children is a true product of the War. Aside from the fact that this policy does by no means promote an increase of the population, no State Government can for any length of time bear the costs of such a policy. At present the salaries of Government and municipal officials in Germany and also the wages of workmen are based on a system of low initial salaries with increasing premiums for length of service in connection with promotion into higher salary or wage classes. Dr. Luppe demonstrates that this system neither promotes early marriages nor does it tend to increase the number of children of wageworkers who marry while still young, while on account of the low initial salaries and wages paid on the basis of this system the Government loses the services of really efficient young men who can obtain much more remunerative employment in private establishments. A system of remuneration which is not based on efficiency—an efficient young single workman may under this system receive 4 marks per day, while an inefficient married workman with numerous children may receive 8 marks per day—moreover, creates serious discontent. Dr. Luppe, therefore, recommends that the State and municipal governments shall adopt high initial salaries and reduce the number of the higher salary and wage classes.

A large number of private employers of late have also met wage demands by granting high-cost-of-living bonuses or bonuses based on the size of the families of their employees and workmen. As a rule, the individual wageworker does not mind in what form he receives a wage increase, be it called a war bonus, a high-cost-of-living bonus, or a family allowance. All he cares for is that he receives more money for his services. He does not consider that these bonuses are granted

¹Frankfurter Zeitung. Frankfort on the Main, Aug. 12, 1917.

under the present pressure of a great scarcity of male and female labor, that they are not binding, and that they may be revoked at any time at the pleasure of the employer. For this reason the writer points out that the trade-unions should make it their particular task to see that all collective agreements concluded in the future shall provide higher initial or basic wages and longer duration of the agreement.

He predicts that unless this policy is adopted by the trade-unions the German workmen will face an unprecedented era of labor disputes after the conclusion of the War because the employers of all industrial branches are even now solidly organized with the object of preventing further wage increases during the War and of reducing wages on its termination.

WAGES AND HOURS OF LABOR.

RATES OF WAGES PAID TO WORKERS PLACED BY EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918.

In the following table are shown the prevailing rates of wages paid to workers in 33 selected occupations placed in employment by public employment offices on the last day of February, 1918, or the day nearest the last day in February on which workers were placed. Reports from 127 employment offices in 39 States and the District of Columbia were tabulated as follows: Thirty-nine Federal employment offices, 3 Federal-municipal employment offices, 11 Federal-State employment offices, 1 Federal-State-county employment office, 1 Federal-State-county-municipal employment office, 1 Federal-State-municipal employment office, 46 State employment offices, 1 State-county-municipal employment office, 18 State-municipal employment offices, 5 municipal employment offices, and 1 municipal-private employment office.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT

[Fed.=Federal; Sta.=State; Co.=County; Mun.=Municipal; Pri.=

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Alabama:					
Mobile (Fed.).....	\$4.50 d.	\$4.50 d.	\$4.00 d.	\$4.95 d.	.....
Arkansas:					
Little Rock (Fed.)....	.50 h.	.52 h.	.....	.60 h.	\$5.00 d.
California:					
Eureka (Fed.).....	.....	.....	.....	4.50 d.	.....
Los Angeles (Sta.-Mun.)	4.50 d.	.50 h.	6.00 d.	4.50 d.	.30 h.
Sacramento (Fed.)....	.....	.....	.....	.....	.....
San Diego (Fed.).....	.....	.....	.....	4.00-5.00 d.	.30 h.
San Francisco (Fed.)...	5.80 d.	5.80 d.	.....	* 6.50 d.	1 30.00 m.
Santa Barbara (Fed.)...	.....	.....	.....	4.50 d.	.....
Colorado:					
Colorado Springs (Sta.)	4.00 d.	.....	.....	.75 h.	.30 h.
Denver No. 1 (Sta.)....	.....	.....	.....	.....	.25 h.
Denver No. 2 (Sta.)....	.....	.....	.....	.60 h.	.....
Pueblo (Sta.).....	3.75 d.	.....	.....	.52½ h.	.25 h.
Connecticut:					
Bridgeport (Fed.-Sta.)	.55 h.	.....	.....	.....	.25 h.
Hartford (Sta.).....	.....	.....	.....	.....	.25 h.
New Haven (Sta.).....	.....	.....	.....	.....	.25 h.
Norwich (Sta.).....	.....	.....	.....	.....	2.00 d.
Waterbury (Sta.).....	.....	.....	.....	.....	1 30.00 m.
Delaware:					
Wilmington (Fed.-Mun)	.....	.....	.....	.62½ h.	.....
District of Columbia:					
Washington (Fed.)....	.....	.....	.....	.62½ h.	.20 h.
Florida:					
Jacksonville (Fed.)...	.....	.....	.....	.42-.50 h.	.....
Key West (Fed.).....	.....	.....	.....	.50 h.	.....
Miami (Fed.).....	.....	.....	.....	.....	.....
Georgia:					
Atlanta (Fed.-Sta.)...	50.00 m.	.50 h.	.60 h.	.50 h.	1.00 d.
Savannah (Fed.).....	4.00 d.	4.00 d.	5.00 d.	4.00 d.	1.00 d.
Idaho:					
Moscow (Fed.).....	.....	.....	.....	.....	.....
Illinois:					
Chicago (Fed.).....	.50 h.	.50 h.	6.00 d.	.70 h.	.....
Chicago (Sta.).....	.40 h.	.42½ h.	.50 h.	.50 h.	2.10 d.
East St. Louis (Sta.)...	.48 h.	.50 h.	.87½ h.	.70 h.	.15 h.
Peoria (Sta.).....	75.00 m.	.....	.....	.60 h.	2.10 d.
Rockford (Sta.).....	.....	.45 h.	.75 h.	.62½ h.	.25 h.
Rock Island-Moline (Sta.)	.65 h.	.52-.75 h.	.75 h.	.62½ h.	.25 h.
Springfield (Sta.)....	.50 h.	.60 h.	.65 h.	.55 h.	1.50 d.
Indiana:					
Evansville (Sta.).....	.....	.....	.....	.....	.20 h.
Fort Wayne (Sta.)....	.45 h.	.52 h.	.70 h.	.50 h.	.....
Indianapolis (Fed.)...	.....	.....	.....	.50 h.	6.00 w.
Indianapolis (Sta.)...	.....	.....	.....	3.50-5.50 d.	1.50 d.
South Bend (Sta.).....	.....	.....	.....	.....	2.00 d.
Terre Haute (Sta.)...	.50 h.	.....	.....	.55 h.	.....
Iowa:					
Des Moines (Fed.-Sta.)	.....	.....	.....	.....	.....
Kansas:					
Topeka (Sta.).....	.48 h.	.52 h.	.75 h.	.60 h.	.20 h.
Kentucky:					
Louisville (Sta.).....	.40 h.	.....	.....	.....	.....
Louisville (Mun.-Pri.)	.....	.....	.....	.50 h.	.....
Maryland:					
Baltimore (Fed.).....	.37-.66 h.	.46-.59 h.	.75 h.	.62½ h.	42.00 m.
Massachusetts:					
Boston (Sta.).....	.45 h.	.47-.60 h.	3.60 d.	4.00 d.	.20-.25 h.
Springfield (Sta.)...	.50 h.	.47-.60 h.	.56 h.	22.00-25.00 w.	10.00 w.
Worcester (Sta.).....	.50 h.	.....	.....	.54 h.	.22½ h.
Michigan:					
Battle Creek (Sta.)...	.....	.45 h.	.....	.60 h.	.25 h.
Bay City (Sta.).....	.....	.....	.....	.....	.....
Detroit (Sta.).....	.50 h.	.65 h.	.70-.75 h.	.45-.65 h.	.25 h.
Flint (Sta.).....	.55 h.	.50 h.	.65 h.	.55 h.	.25 h.
Grand Rapids (Sta.)...	.....	.....	.....	.60 h.	.20 h.
Jackson (Sta.).....	.45 h.	.45 h.	.75 h.	.55 h.	.25 h.
Kalamazoo (Sta.).....	.....	.....	.....	.55 h.	.30 h.
Lansing (Sta.).....60 h.	1.25 d.
Muskegon (Sta.).....
Saginaw (Sta.).....	2.00 d.

¹ And board.

² And found.

³ Ship carpenters.

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BY EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918.

Private; h.=hour; d.=day; w.=week; m.=month; y.=year.]

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
		\$2.00 d.	\$2.00 d.	¹ \$30.00 m.	\$2.00 d.
\$14.00 w.	\$30.00 m.	3.00 d.		¹ 30.00 m.	.30 h.
2.25 d.				2.85 d.	
18.00 w.	40.00 m.	2.75 d.		1.75 d.	
¹ 60.00-80.00 m.	¹ 30.00-40.00 m.	2.75 d.		² 40.00 m.	
² 60.00 m.	40.00 m.	¹ 2.00 d.	3.50 d.	² 60.00 m.	
				¹ 45.90 m.	
70.00 m.	40.00 m.	3.00 d.		40.00 m.	
50.00 m.	40.00 m.	3.00 d.		40.00 m.	
	45.00 m.	3.50 d.		⁴ 50.00 m.	.50 h.
35.00 m.	8.00 w.	80.00 m.		⁴ 35.00 m.	
21.00 w.	30.00-35.00 m.	18.00 w.	.30 h.	35.00 m.	
18.00 w.		15.00 w.		45.00 m.	
15.00 w.	10.00 w.	15.00 w.		45.00 m.	
21.00 w.				35.00 m.	
				25.00 m.	
	7.00 w.			35.00 m.	
50.00 m.	25.00 m.	15.00 w.		40.00 m.	
60.00 m.				1.50- 1.75 d.	
25.00-50.00 m.	20.00 m.			25.00 m.	
1.50 d.	.75 d.	1.50 d.	2.50 d.	1.50 d.	1.75 d.
				50.00 m.	
	9.00-15.00 w.	3.00- 4.00 d.	.30- .35 h.	40.00-50.00 m.	.45 h.
⁴ 4.00 w-50.00 m.	⁴ 60.00 m.	16.00 w.		30.00-50.00 m.	.45 h.
10.00 w.	6.00 w.	3.00 d.	3.00 d.	35.00 m.	.50 h.
15.00 w.	1.00 d.	15.00 w.		35.00 m.	
12.00-15.00 w.	10.00-12.00 w.	.35- .40 h.		45.00-65.00 m.	.45- .50 h.
18.00-25.00 w.	10.00 w.	3.00 d.	6.00 d.	45.00-60.00 m.	.42½ h.
12.00 w.	7.00 w.	3.00 d.		35.00-50.00 m.	
				30.00 m.	
	10.00 w.	18.00 w.		30.00-35.00 m.	.45 h.
	⁴ 8.00 w.	.25 h.		⁵ 35.00 m.	
8.00-20.00 w.	6.00-10.00 w.	.25 h.		30.00-40.00 m.	
		16.00 w.		30.00 m.	
		18.00 w.		30.00-35.00 m.	
				50.00 m.	
60.00-90.00 m.	25.00-40.00 m.	.25 h.		30.00-50.00 m.	
10.00 w.	5.00 w.			1.00 d.	
60.00 m.		2.00 d.		⁶ 35.00 m.	
¹ 20.00-30.00 m.	44.60 m.		.25 h.	1.50 d.	
¹ 2.50 d.	10.00-15.00 w.	3.00 d.	3.00 d.	⁴ 40.00 m.	3.44 d.
15.00 w.	¹ 12.00 w.	15.00-17.00 w.		30.00-35.00 m.	
		.30 h.		⁴ 35.00 m.	
14.00 w.	8.00 w.	18.00 w.		25.00-40.00 m.	
12.00-14.00 w.	10.00-12.00 w.	3.50 d.	.35 h.	28.00-35.00 m.	
25.00 w.	12.00 w.	.80 h.		35.00 m.	.40 h.
	10.00 w.	15.00 w.		35.00 m.	.35 h.
60.00-80.00 m.	50.00-75.00 m.	2.70 d.	.31 h.	30.00-50.00 m.	.33 h.
15.00 w.	12.00 w.	3.00 d.		30.00-40.00 m.	
¹ 100.00 m.	¹ 75.00 m.	.85 h.		¹ 50.00 m.	
	6.00 w.			20.00 m.	

⁴ And room and board.

⁵ And house, garden, etc.

166 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operatives, male.	Laundry operatives, female.
Alabama:					
Mobile (Fed.).....	\$5.00 w.	\$3.50 d.	\$2.75 d.		
Arkansas:					
Little Rock (Fed.).....	5.00 w.	.75 h.	.30 h.		\$8.00 w.
California:					
Eureka (Fed.).....			3.20 d.		
Los Angeles (Sta.-Mun.).....	30.00 m.	4.50 d.	2.50-3.00 d.	\$16.00 w.	10.00 w.
Sacramento (Fed.).....					
San Diego (Fed.).....	35.00-40.00 m.		2.75 d.		8.00-9.00 w.
San Francisco (Fed.).....	35.00 m.	.45 h.	3.00 d.		10.00 w.
Santa Barbara (Fed.).....			3.25 d.		
Colorado:					
Colorado Springs (Sta.).....	30.00 m.		.35 h.		
Denver No. 1 (Sta.).....	40.00 m.		2.50 d.		
Denver No. 2 (Sta.).....			.35 h.		9.50 w.
Pueblo (Sta.).....	5.00 w.		.35 h.		
Connecticut:					
Bridgeport (Fed.-Sta.).....	30.00 m.		.30- .35 h.	.30 h.	.25 h.
Hartford (Sta.).....	6.00 w.		.40 h.	15.00 w.	.25 h.
New Haven (Sta.).....	8.00 w.		3.25 d.	15.00 w.	15.00 w.
Norwich (Sta.).....	30.00 m.	18.00 w.	3.25 d.		
Waterbury (Sta.).....	22.50 m.				
Delaware:					
Wilmington (Fed.-Mun.).....	5.00- 6.00 w.		.30- .40 h.		
District of Columbia:					
Washington (Fed.).....	20.00-25.00 m.		.35 h.		
Florida:					
Jacksonville (Fed.).....			2.00- 2.20 d.		
Key West (Fed.).....					
Miami (Fed.).....					
Georgia:					
Atlanta (Fed.-Sta.).....	4.00 w.		2.00 d.		
Savannah (Fed.).....	1.00 d.	3.00 d.	2.00 d.	1.00 d.	0.75 d.
Idaho:					
Moscow (Fed.).....	5.00 w.		3.60 d.		
Illinois:					
Chicago (Fed.).....	7.00-10.00 w.		.27- .35 h.		9.00 w.
Chicago (Sta.).....	6.00-10.00 w.	3.50- 5.00 d.	.25- .50 h.		2.10- 2.60 d.
East St. Louis (Sta.).....	5.00 w.	.75 h.	3.00 d.	20.00 w.	9.00 w.
Peoria (Sta.).....	5.00 w.		.30 h.		2.10 d.
Rockford (Sta.).....	6.00 w.	.65- .75 h.	.45- .50 h.	12.00-14.00 w.	8.00 w.
Rock Island-Moline (Sta.).....	7.00 w.	.62½ h.	3.50 d.	17.25 w.	9.00 w.
Springfield (Sta.).....	30.00-40.00 m.		.23- .50 h.	2.00 d.	1.00 d.
Indiana:					
Evansville (Sta.).....	4.00 w.		2.00 d.		
Fort Wayne (Sta.).....			.30 h.		
Indianapolis (Fed.).....	1 6.00 w.		.30 h.		6.00 w.
Indianapolis (Sta.).....	12.00 m.		2.75 d.		
South Bend (Sta.).....	5.00 w.		.30 h.		
Terre Haute (Sta.).....			.25- .30 h.	18.00 w.	
Iowa:					
Des Moines (Fed.-Sta.).....			.32½ h.		
Kansas:					
Topeka (Sta.).....	5.00-8.00 w.	0.60 h.	.25 h.	15.00 w.	4.00-6.00 w.
Kentucky:					
Louisville (Sta.).....			.22- .30 h.		
Louisville (Mun.-Pri.).....	2 6.00 w.		2.00 d.		1.00 d.
Maryland:					
Baltimore (Fed.).....	5.00 w.	.46- .59 h.	.25- .32 h.		
Massachusetts:					
Boston (Sta.).....	3.00-10.00 w.	.40 h.	3.00 d.	15.00 w.	7.00-10.00 w.
Springfield (Sta.).....	5.00- 6.00 w.	.50- .55 h.	.30- .35 h.		
Worcester (Sta.).....	1 5.00- 7.00 w.	.45 h.	3.00 d.		
Michigan:					
Battle Creek (Sta.).....	5.00- 6.00 w.		.30 h.	18.00 w.	8.00-12.00 w.
Bay City (Sta.).....	3.00- 4.50 w.		.25- .30 h.		
Detroit (Sta.).....	8.00 w.	.35- .71 h.	.35- .40 h.	18.00 w.	15.00 w.
Flint (Sta.).....	5.00 w.	.45 h.	.30 h.	3.00 d.	1.50 d.
Grand Rapids (Sta.).....	3.00- 5.00 w.		.30 h.		
Jackson (Sta.).....	5.00- 8.00 w.	50.00-55.00 m.	.30- .35 h.	18.00-25.00 w.	9.00-12.00 w.
Kalamazoo (Sta.).....			3.00- 4.00 d.		8.00 w.
Lansing (Sta.).....	2 8.00 m.	.70 h.	.40 h.	20.00 w.	14.00 w.
Muskegon (Sta.).....			.30 h.		
Saginaw (Sta.).....			2.75 d.		

¹ And room and board.

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$4.50 d.	\$3.00 d.	\$5.50 d.		\$5.00 d.	
.52 h.	.65 h.	.65 h.	\$6.00 d.	.75 h.	\$8.00 w.
5.00 d.	.50 h.	3.50 d.	5.00 d.	5.00 d.	10.00 w.
5.80 d.					
5.80 d.	5.80 d.	5.50 d.			12.00 w.
		.60 h.			
.50 h.					8.00 w.
.62 h.		.50 h.			
.45 h.					
.55 h.					
.59½ h.		.60 h.		.60 h.	
.62½ h.		.62½ h.			15.00 w.
.60 h.	.55 h.	.45 h.	.60 h.	.65 h.	
.52½ h.	.62½ h.	4.00 d.	4.00 d.	5.00 d.	10.00 w.
5.84 d.	5.84 d.				
.45- .65 h.	4.00 d.	.70 h.	6.00 d.	6.00 d.	8.00-12.00 w.
.55 h.		70.00 m.			8.00-12.00 w.
.51 h.	.58 h.	.60 h.	.87½ h.	.87½ h.	8.00 w.
.40 h.	5.00 d.				
.35- .45 h.	.35- .40 h.	.50- .55 h.	.62½ h.	.75 h.	8.00 w.
4.00- 6.00 d.	4.00- 8.00 d.	.55 h.	.75 h.	5.45 d.	10.00 w.
.45 h.	.45 h.	.50 h.	.65 h.	8.00-10.00 w.	10.00 w.
.45- .50 h.	4.10 d.			.65 h.	
.60 h.					
3.00- 5.00 d.		.35- \$0.50 h.		5.00 d.	
.55 h.	4.00 d.				
.50 h.					
.45 h.	.55 h.	.50 h.	.75 h.	.62½ h.	7.00 w.
.45 h.					6.00 w.
.40 h.					
.46- .59 h.					
.48 h.	.37 h.	.44 h.	20.00 w.	20.00 w.	7.00-8.50 w.
.55- .60 h.		.50 h.		.65 h.	
.40- .60 h.				.47- .60 h.	
.35- .60 h.	.45 h.				6.00-7.00 w.
.60 h.					
.40 h.		4.00 d.	.70 h.	.60- .70 h.	12.00 w.
.45 h.	.60 h.	.55 h.	.55 h.	.65 h.	10.00 w.
.45 h.	4.50 d.	.40- .45 h.	.50- .60 h.	.60 h.	8.00 w.
.60 h.		.60 h.	.70 h.	.75 h.	6.00-12.00 w.
.50 h.	.55 h.				15.00 w.
3.72 d.					

* And board.

168 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Alabama:					
Mobile (Fed.).....				\$90.00 m.	\$70.00 m.
Arkansas:					
Little Rock (Fed.)....				100.00 m.	85.00 m.
California:					
Eureka (Fed.).....					
Los Angeles (Sta.-Mun.)	\$2.00 d.			75.00 m.	75.00 m.
Sacramento (Fed.)....					
San Diego (Fed.).....					60.00 m.
San Francisco (Fed.)...	2.00 d.			93.50 m.	75.00 m.
Santa Barbara (Fed.)...					
Colorado:					
Colorado Springs (Sta.)	1.00 d.				40.00 m.
Denver No. 1 (Sta.)....					
Denver No. 2 (Sta.)....					
Pueblo (Sta.).....	1.00 d.				8.00 w.
Connecticut:					
Bridgeport (Fed.-Sta.)					
Hartford (Sta.).....					
New Haven (Sta.)....					
Norwich (Sta.).....					
Waterbury (Sta.).....				15.00 w.	
Delaware:					
Wilmington (Fed.-Mun.)					
District of Columbia:					
Washington (Fed.)....	2.00 d.			1,100.00 y.	1,100.00 y.
Florida:					
Jacksonville (Fed.)...					
Key West (Fed.).....					
Miami (Fed.).....					10.00 w.
Georgia:					
Atlanta (Fed.-Sta.)...	15.00 w.				20.00 w.
Savannah (Fed.).....	1.75 d.	\$2.00 d.	\$1.75 d.	75.00 m.	60.00 m.
Idaho:					
Moscow (Fed.).....					
Illinois:					
Chicago (Fed.).....	7.00-9.00 w.		9.00-25.00 w.	18.00 w.	12.00-18.00 w.
Chicago (Sta.).....				50.00-100.00 m.	8.00-20.00 w.
East St. Louis (Sta.)...	20 h.	30.00 w.	20 h.	90.00 m.	75.00 m.
Peoria (Sta.).....	2.00 d.				
Rockford (Sta.).....	2.00 d.				35.00-45.00 m.
Rock Island-Moline (Sta.)	2.00 d.	100.00 m.	1.50 d.	80.00-100.00 m.	75.00 m.
Springfield (Sta.)....	2.00 d.			60.00-100.00 m.	40.00-60.00 m.
Indiana:					
Evansville (Sta.).....					
Fort Wayne (Sta.)....					10.00 w.
Indianapolis (Fed.)...	2.00 d.		6.00 w.		16.00 w.
Indianapolis (Sta.)...				60.00-100.00 m.	
South Bend (Sta.)....					
Terre Haute (Sta.)....					
Iowa:					
Des Moines (Fed.-Sta.)					
Kansas:					
Topeka (Sta.).....	10.00 w.			70.00 m.	60.00 m.
Kentucky:					
Louisville (Sta.).....					5.00-10.00 w.
Louisville (Mun.-Pri.)			1.00 d.		10.00 w.
Maryland:					
Baltimore (Fed.).....	1.25 d.		10.00 w.	60.00-125.00 m.	15.00 w.
Massachusetts:					
Boston (Sta.).....	1.50-2.50 d.			12.00-18.00 w.	8.00-20.00 w.
Springfield (Sta.)...				20.00 w.	
Worcester (Sta.).....				12.00-14.00 w.	8.00 w.
Michigan:					
Battle Creek (Sta.)...				65.00 m.	10.00-12.00 w.
Bay City (Sta.).....					
Detroit (Sta.).....			2.50 d.		
Flint (Sta.).....	.25 h.	.35 h.	.20 h.	80.00 m.	60.00 m.
Grand Rapids (Sta.)...					
Jackson (Sta.).....	8.00-15.00 w.		8.00-15.00 w.	8.00-20.00 w.	8.00-20.00 w.
Kalamazoo (Sta.).....					
Lansing (Sta.).....	.25 h.			100.00 m.	75.00 m.
Muskegon (Sta.).....					
Eaginaw (Sta.).....					

¹ And found.² And board.³ \$27.50 per month with room and board.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 169

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
\$4.00 d.				\$1.75 d.	
65.00 m.	\$8.00 w.	\$8.00 w.	\$7.00 w.		
	60.00 m.		8.00 w.	.30 h.	\$1.00 d.
	30.00 m.	9.00-12.00 w.	9.00 w.	.30 h.	.25- .30 h.
5.80 d.	11.00 w.	* 42.00 m.	10.00 w.	2.50 d.	
				2.25 d.	
			25.00 m.	.35 h.	.25 h.
		40.00 m.	35.00 m.	2.50 d.	2.00 d.
			10.00 w.	.35 h.	2.50 d.
			10.00 w.	.35 h.	.25 h.
		12.00 w.	10.00 w.	.25- .30 h.	.25 h.
		30.00 m.		.40 h.	.25 h.
			7.00 w.	3.25 d.	.25 h.
		12.00 w.	7.00 w.	3.25 d.	2.00 d.
				2.50 d.	2.50 d.
				.41½ h.	.25 h.
	50.00 m.	40.00 m.	* 20.00 m.	.35 h.	1.25 d.
.60 h.					
5.00 d.	2.00 d.	1.75 d.	1.50 d.	1.50 d.	1.00 d.
5.54 d.				2.50 d.	1.50 d.
.70 h.	9.00-14.00 w.		* 9.00-10.00 w.	.28- .35 h.	2.10- 2.35 d.
.70 h.	8.00-12.00 w.	* 8.00-12.00 w.	* 8.00-10.00 w.	.30- .50 h.	.25- .30 h.
.70 h.	10.00 w.	18.00 w.	8.00 w.	.30 h.	.15 h.
		10.00 w.	8.00 w.		
		12.00 w.	1.50 d.	.25- .35 h.	.20- .25 h.
.62½ h.	18.00 w.	12.00 w.	9.00 w.	3.00- 3.58 d.	.25 h.
	24.00 m.	12.00 w.	6.00 w.		
.45 h.			1.00 d.	0.25- .30 h.	1.50 d.
			6.00 w.	.25 h.	1.60 d.
		15.00 w.	8.00 w.		.30 h.
			6.00 w.	.25- .35 h.	
	22.50 m.	10.00 w.	3.00-5.00 w.	.30 h.	.20 h.
		5.00 w.		2.00 d.	1.10 d.
	8.00 w.		32.50 m.		6.00 w.
.47- .60 h.	12.00-15.00 w.	* 2.00 d.	* 7.00 w.	.27 h.	.20 h.
.47- .60 h.			* 5.00 w.	.30 h.	* .20 h.
			* 30.00 m.	.30 h.	.25 h.
		8.00 w.	8.00 w.		
.65- .70 h.	12.00-15.00 w.	* 9.00 w.	7.00 w.	.30- .40 h.	.25 h.
60.00 m.	9.00 w.	9.00 w.	7.00 w.	.35 h.	.25 h.
		6.00 w.		.32½ h.	.20 h.
6.00- 7.00 d.	8.00-10.00 w.	9.00 w.	7.00- 8.00 w.	.30- .35 h.	.25 h.
	15.00 w.	* 20.00 m.	8.00 w.		
			* 15.00 m.	4.00 d.	2.25 d.

* And board at restaurants; \$20 per month and room and board at hotels.

* And carfare.

* And room and board.

170 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Minnesota:					
Minneapolis (Fed.).....	\$3.00-4.00 d.	\$0.40-.60 h.	\$0.75 h.	\$0.55 h.	\$0.35 h.
Missouri:					
Kansas City (Fed.-Sta.)	.40 h.	.50-.60 h.	7.00 d.	.50-.65 h.	.30 h.
St. Joseph (Sta.).....	4.00 d.		.80 h.	.60 h.	.25 h.
St. Louis (Fed.-Sta.)...				.50-.62½ h.	1.60 d.
Montana:					
Butte (Sta.).....					.35 h.
Helena (Fed.).....	4.00 d.	4.40 d.	8.00 d.	6.00 d.	3.00 d.
Nebraska:					
Lincoln (Fed.-Sta.)...					
Omaha (Fed.-Sta.-Co.-Mun.).....					.25 h.
Nevada:					
Reno (Fed.).....					
New Jersey:					
Newark (Fed.-Sta.-Mun.).....	18.00-25.00 w.		3.75 d.	.62½ h.	.25 h.
New Mexico:					
Deming (Fed.).....				.75 h.	
New York:					
Buffalo (Fed.).....					
Ohio:					
Akron (Sta.-Mun.).....	.50 h.	.50 h.	.75 h.	.65 h.	.25 h.
Athens (Sta.).....				.65 h.	
Canton (Sta.-Mun.).....	.40 h.	.50 h.	.75 h.	.60 h.	.25 h.
Chillicothe (Sta.-Mun.)	.50 h.	.50 h.		.60 h.	1.50 d.
Cincinnati (Sta.-Mun.)	.42½ h.	.50 h.	.80 h.	.62½ h.	1.60 d.
Cleveland (Fed.).....	.50 h.	.62½ h.	.80 h.	.70 h.	2.00 d.
Cleveland (Sta.-Mun.)	.45-.65 h.	.45-.55 h.	.60-.75 h.	.45-.60 h.	.25 h.
Columbus (Sta.-Mun.)		.50 h.		.55-.60 h.	1.60 d.
Dayton (Sta.-Mun.)...	.40 h.		.80 h.	.60 h.	1.60 d.
Hamilton (Sta.-Mun.)...	.45 h.				1.25 d.
Lima (Sta.).....		.47½ h.	.80 h.	.40 h.	.20 h.
Mansfield (Sta.).....	.40 h.	80.00 m.	.70 h.	.50 h.	1.50 d.
Marietta (Sta.).....				.45-.50 h.	1.00 d.
Marion (Sta.-Mun.)...	.35-.40 h.	.37-.45 h.	.75 h.	.50 h.	.20 h.
Portsmouth (Sta.)...	.51½ h.			.45 h.	1.50 d.
Sandusky (Sta.-Co.-Mun.).....	4.00 d.				1.50 d.
Springfield (Sta.-Mun.)	.45 h.	.40-.50 h.	.70 h.	.55 h.	1.50 d.
Steubenville (Sta.-Mun.)	.40 h.	.50 h.	.75 h.	.65 h.	2.00 d.
Tiffin (Sta.-Mun.).....	3.75 d.		.65 h.	.45 h.	1.00 d.
Toledo (Sta.-Mun.)...	.50 h.	.50 h.	.70 h.	.55 h.	.25 h.
Washington C.H. (Sta.-Mun.).....					1.75 d.
Youngstown (Sta.-Mun.)	.45 h.	.68 h.	.80 h.	.63 h.	2.10 d.
Zanesville (Sta.-Mun.)	.40 h.	.43 h.	.70 h.	.52½ h.	1.50 d.
Oklahoma:					
Oklahoma City (Sta.)..				.60 h.	.20 h.
Oregon:					
Portland (Fed.).....	5.25 d.	5.25 d.	7.00 d.	5.60 d.	.30 h.
Portland (Mun.).....	5.77½ d.	5.77½ d.	7.00 d.	5.60-6.60 d.	.30 h.
Pennsylvania:					
Erie (Fed.-Sta.) ¹.....	.45 h.		.75 h.	.55 h.	
Harrisburg (Sta.) ².....	.35-.45 h.	.35-.45 h.	.65-.75 h.	.62½ h.	1.50 d.
Johnstown (Fed.-Sta.) ³	.42 h.		.70 h.	.55 h.	1.50 d.
Philadelphia (Fed.)...	.40-.50 h.	.36-.44 h.	.70 h.	.60 h.	7.00-10.00 w.
Philadelphia (Sta.) ³...	.66 h.	.66 h.	.75 h.	.65 h.	6.00 w.
Pittsburgh (Fed.).....	.60 h.	.55 h.	.65 h.	.60 h.	.25 h.
Pittsburgh (Fed.-Sta.-Co.) ⁴.....	.55-.65 h.	.55-.65 h.	.60-.75 h.	.50-.75 h.	.22-.25 h.
Scranton (Fed.-Sta.) ² ..	3.75 d.		.80 h.	.70 h.	1.50 d.
York (Fed.-Sta.) ³					
Rhode Island:					
Providence (Fed.).....	.47-.60 h.			.44-.60 h.	
Providence (Sta.).....	.47-.60 h.	.47-.60 h.			.15-.25 h.
South Carolina:					
Charleston (Fed.).....				3.50 d.	
Tennessee:					
Memphis (Fed.).....				.45 h.	

¹And room and board.

²And board.

³January report.

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$60.00-75.00 m.	\$7.00-15.00 w.	\$15.00-18.00 w.	\$2.50-3.00 d.	\$20.00-50.00 m.	\$0.50 h.
14.00-18.00 w.	6.00-10.00 w.	14.00-16.00 w.	.....	30.00-60.00 m.	.45 h.
12.00-18.00 w.	8.00-15.00 w.	2.50-3.00 d.	.....	40.00-60.00 m.	.50 h.
¹ 75.00 m.	¹ 25.00-35.00 m.	.....	.....	¹ 30.00 m.	.....
21.00 w.	17.50 w.	.....	.....	50.00 m.	.....
26.50 w.	21.00 w.	3.75 d.	.....	45.00 m.	6.00 d.
.....	.....	.....	.....	¹ 45.00-50.00 m.	.....
75.00 m.	9.00 w.	18.00 w.	.....	40.00 m.	.....
.....	.....	.....	.....	1.50 d.	.....
15.00-22.00 w.	30.00-40.00 m.	15.00-18.00 w.	.....	.....	.....
60.00 m.	.....	.....	.....	.....	.....
.....	.....	.....	.....	30.00-50.00 m.	.....
20.00 w.	15.00 w.	3.00 d.	.....	35.00 m.	.50 h.
15.00 w.	8.00 w.	18.00 w.	.....	2.00 d.	.....
20.00 w.	8.00 w.	.30 h.	.30 h.	30.00-40.00 m.	.50 h.
.40 h.	8.00 w.	16.50 w.	.....	1.00-1.50 d.	.....
25.00-30.00 w.	18.00-20.00 w.	18.00 w.	.35 h.	¹ 30.00 m.	.45 h.
¹ 40.00-60.00 m.	¹ 40.00-50.00 m.	18.00-22.00 w.	.40-.45 h.	30.00-50.00 m.	.45 h.
.....	50.00 m.	2.50 d.	.....	30.00-60.00 m.	.50 h.
.....	.....	3.00 d.	.....	¹ 30.00-35.00 m.	.....
.....	5.00 w.	15.00 w.	.....	25.00-35.00 m.	.35 h.
75.00 m.	12.00 w.	55.00 m.	.....	35.00 m.	.....
12.00-15.00 w.	6.00-10.00 w.	16.00-18.00 w.	.....	30.00-40.00 m.	.35 h.
.....	.....	.....	.....	30.00-35.00 m.	.40 h.
60.00-70.00 m.	25.00-35.00 m.	.25 h.	.....	25.00-45.00 m.	.....
.....	.....	.27½ h.	.....	30.00-40.00 m.	.35 h.
.....	.....	3.00 d.	.....	45.00 m.	.....
15.00-20.00 w.	5.00-7.00 w.	.30 h.	.....	30.00-40.00 m.	.40 h.
14.00 w.	12.00 w.	18.00 w.	.....	40.00 m.	.45 h.
15.00 w.	.....	2.75 d.	.....	40.00 m.	.....
² 15.00 w.	² 10.00 w.	17.00 w.	.....	¹ 35.00 m.	.40 h.
.....	.....	.....	.....	1.25 d.	.....
90.00 m.	70.00 m.	3.50 d.	.....	40.00 m.	.40 h.
20.00 w.	.....	2.75 d.	.....	25.00-40.00 m.	.40 h.
15.00 w.	8.00 w.	2.25 d.	.....	30.00 m.	.....
75.00-100.00 m.	40.00-80.00 m.	2.75-3.50 d.	.60-1.00 h.	40.00-60.00 m.	4.50 d.
80.00-125.00 m.	50.00-80.00 m.	2.75-3.50 d.	6.00 d.	40.00-60.00 m.	4.50 d.
10.00 w.	.....	.40 h.	.45 h.	80.00 m.	.....
15.00-18.00 w.	6.00-15.00 w.	15.00 w.	.38½ h.	25.00-35.00 m.	.35 h.
¹ 75.00 m.	¹ 65.00 m.	70.00 m.	.....	¹ 1.50 d.	.....
90.00 m.	8.00-15.00 w.	55.00-60.00 m.	.35 h.	35.00-60.00 m.	.....
75.00 m.	7.50 w.	17.00 w.	.32½ h.	35.00 m.	.45 h.
20.00 w.	15.00 w.	3.50 d.	.....	² 40.00 m.	.....
15.00-20.00 w.	¹ 30.00-45.00 m.	16.00-20.00 w.	.....	¹ 30.00-45.00 m.	.40-.50 h.
20.00 w.	8.00 w.	15.00 w.	.....	25.00 m.	.....
.....
8.00-16.00 w.	7.00-12.00 w.	12.00-17.00 w.	.25 h.	² 35.00 m.	.....
.....	20.00-30.00 m.
.....
20.00 w.	32.50 m.

* And carfare and dinner.

* And board and room and washing.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	House servants.	Inside wire-men.	Laborers.	Laundry operatives, male.	Laundry operatives, female.
Minnesota:					
Minneapolis (Fed.).....	\$5.00- 9.00 w.	\$0.62½ h.	\$2.50 d.	\$15.00-18.00 w.	\$7.00 w.
Mississippi:					
Gulfport (Fed.).....			.25 h.		
Missouri:					
Kansas City (Fed.-Sta.)	5.00- 7.00 w.	.60 h.	.30- .45 h.	15.00 w.	5.00- 9.00 w.
St. Joseph (Sta.).....	4.00- 8.00 w.		.25- .40 h.	15.00-18.00 w.	7.00-12.00 w.
St. Louis (Fed.-Sta.)..	18.00-25.00 m.		.35 h.		1.60 d.
Montana:					
Butte (Sta.).....	30.00-35.00 m.		4.25 d.		
Helena (Fed.).....	35.00-40.00 m.	5.25 d.	3.50 d.	24.00 w.	18.00 w.
Nebraska:					
Lincoln (Fed.-Sta.)..			.30 h.		
Omaha (Fed.-Sta.-Co.-Mun.).....	7.00 w.		.30 h.		9.00 w.
Nevada:					
Reno (Fed.).....	30.00 m.		3.10 d.		
New Jersey:					
Newark (Fed.-Sta.-Mun.).....			.29½- .37½ h.		
New Mexico:					
Deming (Fed.).....			60.00 m.		
New York:					
Buffalo (Fed.).....			.25- .40 h.		
Ohio:					
Akron (Sta.-Mun.).....	7.00 w.	0.55 h.	.35 h.	18.00 w.	9.00 w.
Athen (Sta.).....			.35 h.		
Canton (Sta.-Mun.).....	6.00 w.	.40 h.	.32½ h.	18.00 w.	8.00 w.
Chillicothe (Sta.-Mun.)		.60 h.	.35 h.	14.00 w.	8.00 w.
Cincinnati (Sta.-Mun.)	30.00 m.	.62½ h.	.27 h.	16.00 w.	10.00 w.
Cleveland (Fed.).....	7.00-10.00 w.	.78½ h.	.35- .45 h.		
Cleveland (Sta.-Mun.)..	5.00-10.00 w.	.45- .50 h.	.35- .50 h.		9.00-10.00 w.
Columbus (Sta.-Mun.)..	6.00 w.		.30 h.		
Dayton (Sta.-Mun.).....	5.00 w.	.55 h.	.30- .35 h.		
Hamilton (Sta.-Mun.)..	4.50 w.		.30 h.		6.00 w.
Lima (Sta.).....		.42½ h.	.30 h.	.25 h.	.20 h.
Mansfield (Sta.).....	5.50 w.	.39 h.	.40 h.	14.00 w.	8.00 w.
Marietta (Sta.).....	3.50-5.00 w.		.25 h.	1.00 d.	1.00 d.
Marion (Sta.-Mun.).....	5.00 w.	.40 h.	.30- .35 h.		
Portsmouth (Sta.).....	5.00 w.		.27½ h.		6.00 w.
Sandusky (Sta.-Co.-Mun.).....			.30 h.		
Springfield (Sta.-Mun.)	5.00 w.		.30 h.	15.00-18.00 w.	6.00-7.00 w.
Steubenville (Sta.-Mun.)	7.00 w.	.62½ h.	.30 h.		
Tiffin (Sta.-Mun.).....	1.00 d.	125.00 m.	2.75 d.		1.25 d.
Toledo (Sta.-Mun.).....	5.00 w.	.62½ h.	.30 h.	15.00 w.	8.00 w.
Washington C.H. (Sta.-Mun.).....			.25 h.		5.00 w.
Youngstown (Sta.-Mun.)	7.00 w.	.68 h.	.35 h.	80.00 m.	9.00 w.
Zanesville (Sta.-Mun.)	4.50-6.00 w.	3.25 d.	2.50 d.	17.50 w.	10.25 w.
Oklahoma:					
Oklahoma City (Sta.)..	5.00 w.		.30 h.		
Oregon:					
Portland (Fed.).....	30.00-40.00 m.	4.50 d.	.35 h.	15.00-21.00 w.	8.64-12.00 w.
Portland (Mun.).....	25.00-40.00 m.	4.50-5.77½ d.	3.57½ d.	15.00-21.00 w.	8.64-15.00 w.
Pennsylvania:					
Erie (Fed.-Sta.) ².....			.40 h.		
Harrisburg (Sta.) ²	5.00-10.00 w.	.25- .35 h.	.40 h.	12.00-15.00 w.	6.00 w.
Johnstown (Fed.-Sta.) ²	5.00 w.		.30- .35 h.	18.00 w.	6.00 w.
Philadelphia (Fed.).....	6.00-10.00 w.	.45 h.	.32- .40 h.		6.00-12.00 w.
Philadelphia (Sta.) ²	7.00 w.	.50 h.	.35 h.	15.00 w.	6.50 w.
Pittsburgh (Fed.).....	7.00 w.	.45 h.	.35 h.		10.00 w.
Pittsburgh (Fed.-Sta.) ¹					
Co.) ²	120.00-30.00 m.	.40- .45 h.	.33- .35 h.		
Scranton (Fed.-Sta.) ² ..	6.00 w.		.30 h.		
York (Fed.-Sta.) ²			2.25-2.50 d.		
Rhode Island:					
Providence (Fed.).....			.30- .40 h.		
Providence (Sta.).....	4.00-8.00 w.		.25- .37 h.		
South Carolina:					
Charleston (Fed.).....			1.75 d.		
Tennessee:					
Memphis (Fed.).....			.27½ h.		

¹ And room and board.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 173

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$3.00- 4.00 d.	\$3.00- 4.00 d.	\$0.55 h.	\$0.75 h.	\$0.52 h.	\$8.00 w.
.50 h. .80 h. 4.00 d.	5.20 d.	.40- .65 h. .50 h.	7.00 d. .75 h.	6.00 d. .80 h.	6.00-10.00 w. 7.00 w.
4.40 d.	6.00 d.	6.00 d.	8.00 d.	8.00 d.	
.55 h.					9.00 w.
.45- .60 h.		4.00 d. .75 h.		.75 h.	
.65 h.	.65 h.	.50 h.	.55 h.	5.00 d.	10.00 w.
.50 h.	.50 h.	.60 h.	.60 h.	.60 h.	8.00 w.
.50 h.	.50 h.	.60 h.	.60 h.	.60 h.	8.00 w.
.43 h.	.44½ h.	.55 h.	.75 h.	.65½ h.	7.00 w.
.50- .70 h.	5.50 d.	.60 h.	.75 h.	.81½ h.	10.00-15.00 w.
.40- .60 h.	.60 h.	.40- .60 h.	.40- .60 h.	.80 h.	7.00-9.00 w.
.50- .60 h.	.45 h.				12.00 w.
.60- .65 h.	4.00 d.	.40 h.	.50 h.	.62½ h.	6.00 w.
.47½ h.	4.25 d.	.25 h.		.50 h.	8.50 w.
.45 h.	.45 h.		.70 h.	.70 h.	6.00 w.
.35- .50 h.	.45 h.	2.75-3.50 d. .45 h.			
.50½ h.					
.30 h.	.45 h.	.45- .50 h.	.50 h.	25.00 w.	7.00-12.00 w.
.35- .45 h.				.65 h.	6.00 w.
.57 h.	4.00 d.	.40 h.		.45 h.	20.00 w.
.50 h.	.40 h.	.50 h.	.70 h.	.62½ h.	6.00 w.
.50 h.					6.00 w.
.60 h.	5.50 d.	.60 h.	.68 h.	.65 h.	10.00 w.
.45 h.	.45 h.	.50 h.	.62½ h.	.53 h.	12.00 w.
5.25 d.	5.25 d.	4.50 d.	7.00 d.	6.50 d.	8.64-15.00 w.
5.77½ d.	5.77½ d.	4.50-6.50 d.	7.00 d.	6.50 d.	8.64-15.00 w.
.40- .65 h.	.47 h.				
.45- .55 h.	.35- .45 h.	.50 h.	.60 h.	.37½- .50 h.	8.00 w.
.72½ h.		.60 h.		4.00 d.	8.00 w.
.62 h.	.72½ h.	.55 h.	.70 h.	.56 h.	
.60 h.	.60 h.	.45 h.		.75 h.	12.00 w.
.50- .65 h.	5.00-5.50 d.	.55- .60 h.	.55 h.	.60- .70 h.	12.00-17.00 w.
.42 h.		.70 h.		.70 h.	8.00 w.
				4.00 d.	
.47- .60 h.					
.32- .60 h.					
.75 h.		.52½ h.		.65 h.	

*January report.

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174 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Minnesota:					
Minneapolis (Fed.).....	\$8.00-40.00 w.	\$18.00-35.00 w.	\$12.00 w.	\$18.00-21.00 w.	\$40.00-75.00 m.
Mississippi:					
Gulfport (Fed.).....					
Missouri:					
Kansas City (Fed.-Sta.).....				65.00-100.00 m.	10.00-18.00 w.
St. Joseph (Sta.).....	1.50-2.00 d.	16.00 w.	12.00 w.		40.00-60.00 m.
St. Louis (Fed.-Sta.).....	1.25-2.00 d.		2.00 d.		65.00 m.
Montana:					
Butte (Sta.).....					
Helena (Fed.).....				100.00 m.	80.00 m.
Nebraska:					
Lincoln (Fed.-Sta.).....					
Omaha (Fed.-Sta.-Co.-Mun.).....	2.50 d.			80.00 m.	70.00 m.
Nevada:					
Reno (Fed.).....					
New Jersey:					
Newark (Fed.-Sta.-Mun.).....	2.00 d.			15.00-25.00 w.	10.00-18.00 w.
New Mexico:					
Deming (Fed.).....					125.00 m.
New York:					
Buffalo (Fed.).....					
Ohio:					
Akron (Sta.-Mun.).....	2.00 d.		9.00 w.	80.00 m.	75.00 m.
Athens (Sta.).....					
Canton (Sta.-Mun.).....	8.00 w.		8.00 w.	25.00 w.	12.00-18.00 w.
Chillicothe (Sta.-Mun.).....	10.00 w.		8.00 w.	100.00 m.	75.00 m.
Cincinnati (Sta.-Mun.).....	7.50 w.	18.00 w.	12.00 w.	75.00 m.	50.00 m.
Cleveland (Fed.).....	2.50 d.				75.00-90.00 m.
Cleveland (Sta.-Mun.).....	2.00-2.50 d.	20.00-25.00 w.	12.00-15.00 w.	90.00-100.00 m.	60.00-85.00 m.
Columbus (Sta.-Mun.).....	2.00 d.			75.00-100.00 m.	6.00 m.
Dayton (Sta.-Mun.).....				22.00 w.	60.00 m.
Hamilton (Sta.-Mun.).....					
Lima (Sta.).....	1.50-4.50 d.			60.00 m.	50.00 m.
Mansfield (Sta.).....	6.00 w.		6.00 w.	75.00 m.	60.00 m.
Marietta (Sta.).....					
Marion (Sta.-Mun.).....					40.00 m.
Portsmouth (Sta.).....					
Sandusky (Sta.-Co.-Mun.).....					7.00-15.00 w.
Springfield (Sta.-Mun.).....	7.00 w.			75.00-90.00 m.	40.00-65.00 m.
Steubenville (Sta.-Mun.).....				100.00 m.	18.00 w.
Tiffin (Sta.-Mun.).....	1.50 d.		8.00 w.		60.00 m.
Toledo (Sta.-Mun.).....	.25 h.		10.00 w.	100.00 m.	10.00 w.
Washington C.H. (Sta.-Mun.).....	10.00 w.		8.00 w.	15.00 w.	10.00 w.
Youngstown (Sta.-Mun.).....	2.50 d.			100.00 m.	75.00 m.
Zanesville (Sta.-Mun.).....	10.00 w.			20.00 w.	15.00 w.
Oklahoma:					
Oklahoma City (Sta.).....					12.00 w.
Oregon:					
Portland (Fed.).....	2.00 d.		8.64-12.00 w.	80.00-125.00 m.	60.00-100.00 m.
Portland (Mun.).....			8.64-12.00 w.	80.00-125.00 m.	60.00-100.00 m.
Pennsylvania:					
Erie (Sta.-Fed.) ¹				20.00 w.	12.00 w.
Harrisburg (Sta.) ²	8.00 w.		10.00-20.00 w.	18.00-25.00 w.	12.00 w.
Johnstown (Sta.-Fed.) ²	1.50-2.00 d.			75.00 m.	45.00 m.
Philadelphia (Fed.).....	1.50-3.00 d.		1.50-3.00 d.		12.00-18.00 w.
Philadelphia (Sta.) ²				80.00 m.	16.00 w.
Pittsburgh (Fed.).....	2.00 d.			90.00 m.	65.00 m.
Pittsburgh (Fed.-Sta.-Co.) ²				80.00-100.00 m.	50.00-75.00 m.
Scranton (Fed.-Sta.) ²	8.00 w.			15.00 w.	10.00 w.
York (Fed.-Sta.) ²					
Rhode Island:					
Providence (Fed.).....					16.00 w.
Providence (Sta.).....				15.00-18.00 w.	8.00-12.00 w.
South Carolina:					
Charleston (Fed.).....					
Tennessee:					
Memphis (Fed.).....				125.00 m.	100.00 m.

¹ And room and board.² And board.

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
\$0.45- .50 h.	\$40.00-50.00 m.	\$15.00 w.	\$7.00-12.00 w.	\$0.30- .35 h.	\$0.30- .35 h.
5.80 d.	35.00-65.00 m. 8.00 w.	14.00 w. 12.00 w. 1 35.00 m.	5.00- 8.00 w. 8.00-10.00 w. 1.10 d.	.30 h. 2.50 d. .30 h.	2.10 d. 1.50 d. 1.00- 1.50 d.
7.00 d.		4.00 d.	14.00 w. 3.00 d.	3.00 d.	2.00 d.
	35.00 m.	60.00 m.	8.00 w.		
5.00- 6.00 d.		60.00 m.		.30 h.	2.00 d.
.55 h.	9.00 w.	15.00 w.	8.00 w.	.35 h.	.25 h.
.60 h.	8.00 w.	10.00-14.00 w. 14.00 w.	8.00-10.00 w. 1.00 d.	.20 h. .40 h.	.20 d. 2.00 d.
.65 h.	45.00 m.	10.00 w.	6.00 w.	.30 h.	.20 h.
.80 h.	10.00 w.	10.00-12.00 w.	7.00-8.00 w.	.27 h.	1.60 d.
.45-.60 h.	8.00-15.00 w.		2 8.00-9.00 w.	2.50 d.	2.00 d.
		15.00 w.	8.00 w.	.35 h.	2.00 d.
.50 h.	.19 h.	2 14.00 w.		.30 h.	1.60 d.
.70 h.	35.00 m.	15.00 w.	2 5.00 w. 9.00 w.		
.75 h.		10.00 w. 5.00 w.	3.50-5.00 w. 6.00 w.	.35 h. .25 h.	1.50 d. 1.00 d.
	7.00-10.00 w.	12.00-16.00 w. 7.00 w.	5.00 w. 6.00-8.00 w. 6.00 w.	.40 h. .30 h.	1.50 d. 1.50 d.
.75 h.	10.00 w.	14.00 w.	1.00 d. 7.00 w.	2.00 d. .30 h.	1.00 d. .25 h.
.68½ h.				2.00 d.	1.50 d.
.60 h.	10.00 w.	50.00 m.	8.00 w.	.35 h.	.25 h.
.45 h.	24.00-37.00 m.	18.00 w.	6.00 w.	3.00 d.	1.50 d.
		9.00 w.	1.00 d.	.30 h.	.20 h.
5.00-6.00 d.	9.00-15.90 w.	13.00-18.00 w.	10.00-12.00 w.	.35 h.	.30 h.
5.00-6.50 d.	9.00-14.00 w.	2 13.00-18.00 w.	2 10.00-13.00 w.	.35-.45 h.	.30-.35 h.
.60 h.		5.00-7.00 w.	5.00 w.	.25 h.	.17½ h.
.35-.45 h.	9.00 w.	2 7.00 w.	2 5.00 w.	.25 h.	1.50 d.
.70 h.	10.00 w.	30.00-60.00 m.	4.00-10.00 w.	.30 h.	1.25-1.50 d.
.48 h.		15.00 w.	6.00 w. 10.00 w.	2.00 d. 3.00 d.	1.60-2.40 d. 1.50 d.
.50-.65 h.	7.50-9.50 w. 7.00 w.	12.00-13.00 w. 25.00 m.	6.00-10.00 w. 3.00-6.00 w.	2.50 d.	2.00 d. 1.50 d.
.47-.60 h.		2 6.00-9.00 w.	2 4.00-7.00 w.	.20 h.	.25 h.
		12.50 w.			

* January report.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Texas:					
Dallas (Mun.).....	\$3.50 d.			\$5.00 d.	\$2.00 d.
Del Rio (Fed.).....		\$0.45 h.	\$7.00 d.	4.00 d.	1.00 d.
El Paso (Fed.).....					
Galveston (Fed.).....				.62½ h.	
Houston (Fed.).....	.53 h.	.75 h.	1.00 h.	.62½ h.	25.00-50.00 m.
Houston (Mun.).....				.60½ h.	1.00 d.
Utah:					
Salt Lake City (Fed.)..	4.75-6.00 d.	4.50-6.00 d.	6.00 d.	4.50-6.00 d.	1.25-2.00 d.
Virginia:					
Norfolk (Fed.).....	4.72 d.			.58 h.	
Washington:					
Bellingham (Fed.-Mun.)				.75 h.	.30 h.
Seattle (Fed.).....	5.77½ d.	5.84 d.	6.00 d.	5.60 d.	.25 h.
Seattle (Mun.).....	5.00-6.00 d.		4.00-7.00 d.	4.50-6.00 d.	.30 h.
Spokane (Fed.).....	5.50 d.	5.00 d.	7.00 d.	5.00 d.	.35 h.
Spokane (Mun.).....	4.50 d.		6.00 d.	5.50 d.	.35 h.
Tacoma (Fed.-Mun.)....	5.00 d.	5.28 d.	6.00 d.	5.00 d.	.35 h.
Walla Walla (Fed.)....				3.51 d.	.30 h.
Yakima (Fed.).....					
Wisconsin:					
La Crosse (Sta.) * .....					.25 h.
Milwaukee (Sta.-Mun.)	.45 h.		.50 h.	.50 h.	25.00 m.
Wyoming:					
Cheyenne (Fed.-Sta.)..				.60- .75 h.	

* And board.

* And car fare.

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$75.00 m. 25.00 w.	\$12.00 w. 25.00 m.	\$15.00 w.	.....	\$30.00 m. 1.25 d.	.....
45.00-275.00 m. 90.00 m.	40.00-100.00 m. 20.00 m.	2.00-3.00 d. 2.25 d.	\$0.35-.45 h. .25-.50 h. .50 h.	15.00-40.00 m. 15.00-35.00 m. 30.00 m.	\$3.00 d.
40.00-125.00 m.	35.00-75.00 m.	3.00-4.00 d.	.....	40.00-75.00 m.	4.50-5.00 d.
.....	35.00-60.00 m. 40.00 m.	3.25 d. 1 45.00 m.	.50 h. .40 h.	40.00-55.00 m. 1 50.00 m.	.....
60.00-150.00 m.	35.00-75.00 m.	3.50-3.75 d.	.40-.65 h.	45.00-75.00 m.	4.00-4.50 d.
80.00 m.	45.00 m.	80.00 m.	.....	60.00 m.	4.50 d.
90.00 m.	50.00 m.	65.00 m.	.....	60.00 m.	.....
100.00 m.	65.00 m.	4.50 d.	.70-.80 h.	65.00 m.	4.50 d.
40.00 m.	40.00 m.	.....	.....	50.00-65.00 m.	.....
1 65.00 m.	2 30.00 m.	.37-.44 h.	.....	1 45.00-60.00 m.	.....
100.00 m.	40.00 m.	3.00 d.	.40 h.	25.00 m. 35.00 m.	.40 h.
.....	.....	.....	.....	1 50.00 m.	.....

* And room and board.

† January report.

178 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operatives, male.	Laundry operatives, female.
Texas:					
Dallas (Mun.).....	\$6.00 w.	.....	\$2.25 d.	\$13.00 w.	\$12.00 w.
Del Rio (Fed.).....	2.00 d.	.....	1.00 d.	.22½ h.	.15 h.
El Paso (Fed.).....	4.00 w.	.....	.....	.....	.....
Galveston (Fed.).....	.....	.....	.....	.....	.....
Houston (Fed.).....	3.00-8.00 w.	\$6.00 d.	.30 h.	10.00-35.00 w.	7.00-15.00 w.
Houston (Mun.).....	20.00 m.	.....	.25 h.	.....	1.00 d.
Utah:					
Salt Lake City (Fed.)..	5.00-10.00 w.	5.60 d.	2.90-3.50 d.	16.00-25.00 w.	1.25- 2.50 d.
Virginia:					
Norfolk (Fed.).....	.....	.....	.30 h.	.....	.....
Washington:					
Bellingham (Fed.-Mun.)	4.00-6.00 w.	.....	.35 h.	.....	.....
Seattle (Fed.).....	1 30.00 m.	.....	3.50 d.	.....	.....
Seattle (Mun.).....	20.00-50.00 m.	.60 h.-6.00 d.	3.50 d.	15.00-21.00 w.	12.00 w.
Spokane (Fed.).....	30.00 m.	6.50 d.	3.50 d.	21.00 w.	13.00 w.
Spokane (Mun.).....	.....	.....	3.50 d.	.....	.....
Tacoma (Fed.-Mun.)...	35.00 m.	5.00 d.	4.00 d.	25.00 w.	15.00 w.
Walla Walla (Fed.)....	6.00 w.	.....	.35 h.	.....	.....
Yakima (Fed.).....	.....	.....	3.00-3.50 d.	.....	.....
Wisconsin:					
La Crosse (Sta.) ²	3.00-5.00 w.	.....	.25 h.	.....	.....
Milwaukee (Sta.-Mun.)	5.00 w.	.35 h.	.30 h.	12.00 w.	7.00 w.
Wyoming:					
Cheyenne (Fed.-Sta.)..	.....	.....	2.50 d.	.....	.....

¹ And board.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 179

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$0.60 h.		\$4.80 d.		\$6.80 d.	\$20.00 w.
.45 h.		4.00 d.	\$7.00 d.	7.00 d.	45.00 m.
.55 h.	\$0.30-.60 h.	.60 h.	.87½ h.	.87½ h.	6.00-15.00 w.
		3.00 d.			
5.00-6.00 d.	6.00 d.	5.50-6.00 d.	7.00 d.	6.50 d.	.90-1.75 d.
.59 h.	.59 h.	4.16 d.		4.72 d.	
.50 h.					
5.84 d.	5.77½ d.	5.50 d.	5.77½ d.		
4.50-6.00 d.	6.00 d.	4.50-6.00 d.	.50-.75 h.	6.50 d.	
5.00 d.	5.00 d.	5.50 d.	6.00 d.	6.00 d.	12.00 w.
5.80 d.	6.00 d.	4.50 d.	6.00 d.	6.00 d.	18.00 w.
	.62½ h.				
.45 h.	.45 h.	.37½ h.			6.00 w.
					18.00 w.

* January report.

180 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Texas:					
Dallas (Mun.).....	\$2.25 d.				
Del Rio (Fed.).....					\$85.00 m.
El Paso (Fed.).....					
Galveston (Fed.).....					
Houston (Fed.).....	1.00-3.00 d.		\$6.00-27.00 w.	\$40.00-150.00 m.	30.00-125.00 m.
Houston (Mun.).....	1.25 d.			100.00 m.	70.00 m.
Utah:					
Salt Lake City (Fed.)..	1.50-3.00 d.	\$20.00-25.00 w.	1.00-2.25 d.	45.00-125.00 m.	40.00-75.00 m.
Virginia:					
Norfolk (Fed.).....					
Washington:					
Bellingham (Fed.-Mun.)					
Seattle (Fed.).....				100.00 m.	90.00 m.
Seattle (Mun.).....	2.00 d.			90.00-110.00 m.	12.00-15.00 w.
Spokane (Fed.).....	13.00 w.	21.00 w.	13.00 w.	85.00 m.	60.00 m.
Spokane (Mun.).....					
Tacoma (Fed.-Mun.)...	3.00 d.	3.00 d.	3.00 d.	125.00 m.	85.00 m.
Walla Walla (Fed.)....					
Yakima (Fed.).....					
Wisconsin:					
La Crosse (Sta.) ²					
Milwaukee (Sta.-Mun.)	3.00 w.	15.00 w.	8.00 w.	80.00 m.	50.00 m.
Wyoming:					
Cheyenne (Fed.-Sta.)..					85.00 m.

¹ And board.² And carfare.

EMPLOYMENT OFFICES IN THE UNITED STATES, FEBRUARY, 1918—Concluded.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
	\$45.00 m. 35.00 m.	\$15.00 w. 2.00 d.	\$12.00 w. 1.50 d. 5.00 w.	\$2.25 d. 1.00 d.	\$2.00 d. 1.00 d.
\$0.65 h.	20.00-45.00 m.	30.00-50.00 m. 12.00 w.	25.00-40.00 m. 7.00 w.	2.00-3.00 d. .25 h.	1.00-2.00 d. 1.00 d.
6.50 d.	24.00-60.00 m.	15.00 w.	30.00-40.00 m.	.30-.40 h.	.25-.30 h.
			1 8.00-10.00 w.	.30 h. .40 h.	.25 h. .30 h.
5.77½ d.		17.00-18.00 w. 18.00 w.	9.00-12.00 w. 13.00 w.	.35-.50 h. .35 h. .40 h.	2 .30 h. .35 h. .30 h.
	13.00 w.			4.00 d.	2.25 d. .25 h.
6.00-7.00 d.	15.00 w.	15.00 w.	12.00 w.		.30 h.
			1 9.00 w.	.35 h.	
			18.00 m. 6.00 w.	.30 h. .30 h.	.20-.25 h. .25 h.
		14.00 w.			
			1 14.00 w.		

²January report

ADJUSTMENT OF WAGES AND HOURS OF LABOR IN THE DELAWARE RIVER AND BALTIMORE SHIPYARDS.

Following is given in full the decision as to wages, hours, and other conditions in the Delaware River and Baltimore shipyards, made by the Shipbuilding Labor Adjustment Board February 14, 1918, as corrected and extended March 1, 1918. An explanatory note to the decision states that the corrections and extensions in this revised and authoritative edition have resulted from conferences with representatives of the shipyard owners and of the employees concerned, and are intended to clear up ambiguities and misunderstandings as well as to fix rates for a few occupations not previously covered.

DECISION AS TO WAGES, HOURS, AND OTHER CONDITIONS IN DELAWARE RIVER AND BALTIMORE SHIPYARDS.

First. During the month of October, 1917, when the Shipbuilding Labor Adjustment Board was absent on the Pacific coast, disputes arose in different steel shipyards in the Delaware River district. These were temporarily adjusted through the efforts of Mr. Raymond B. Stevens, vice chairman of the United States Shipping Board, with the understanding that any wage scale subsequently determined by the shipbuilding labor adjustment board should be retroactive to the date when the men returned to work, November 2. Although there may be some question as to whether this understanding was intended to apply to yards in which disputes had not yet arisen, we have decided to resolve this in favor of the employees and to make the wage rates fixed retroactive as regards the shipbuilding crafts to which they apply to November 2 for all of the steel shipyards of the Delaware River district actually engaged in the building of ships for the Navy Department or the Emergency Fleet Corporation, that is:

Chester Shipbuilding Co., Chester, Pa.

Harlan Plant, Bethlehem Shipbuilding Co., Wilmington, Del.

New Jersey Shipbuilding Co., Gloucester, N. J.

New York Shipbuilding Co., Camden, N. J.

Pennsylvania Shipbuilding Co., Gloucester, N. J.

Pusey & Jones Co., Wilmington, Del.

Sun Shipbuilding Co., Chester, Pa.

Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, Pa.

We do this because early in our investigation we became convinced by the unanimous testimony of both sides that a uniform minimum wage scale and uniform piece rates for all of the shipyards on the river, from Bristol to the north to Wilmington to the south, would be desirable and because limiting the retroactive provision to employees who actually struck would amount to penalizing those who, notwithstanding their dissatisfaction with conditions, remained loyally at work, and thus be an incitement to future strikes.

For the yards predominantly in course of construction, that is, of the American International Shipbuilding Corporation, at Hog Island, Pa., of the Merchant Shipbuilding Corporation, at Bristol, Pa., and of the Traylor Shipbuilding Corporation, at Cornwells Heights, Pa., we make the wage rates fixed for crafts engaged in construction work, which appeared before us with definite demands, to wit: Carpenters, plumbers, pipe fitters, electrical workers, sheet-metal workers, painters, blacksmiths,

molders, and engineers, retroactive to the date when we held our hearing on conditions in those yards, that is, January 15, 1918.

For the yards in and near Baltimore, that is, of the Baltimore Dry Dock & Shipbuilding Co., of Baltimore, of the Bethlehem Shipbuilding Corporation, Sparrows Point, Md., of the Maryland Shipbuilding Co., Sollers Point, Md., and of Henry Smith & Sons Co., Baltimore, we make the wage rates fixed retroactive to February 1 in accordance with an agreement with representatives of the employees in those yards.

Second. The most serious obstacle to the maintenance of a uniform minimum wage scale in all of the yards of the district is the variable expense for transportation to and from their work to which the employees of the yards up and down the river from Philadelphia are put owing to inadequate local housing facilities. To equalize this condition we hereby authorize shipyards whose employees are compelled to expend regularly more than 8 cents for transportation to or from their work, to provide such employees with commutation or other tickets, at the expense of the company. In providing free transportation for employees coming from a distance, each shipyard must adopt such precautions to prevent the privilege from being abused as may be prescribed by the auditors of the Navy Department and the Emergency Fleet Corporation. We permit the payment of the entire fares of such employees rather than merely of the excess over 16 cents to enable yards with inadequate local housing facilities to draw their employees from greater distances.

Third. As regards hours of employment, we have found a good deal of diversity and confusion in the different yards growing out of the fact that although the eight-hour day has not yet been universally introduced, the half holiday on Saturday is an institution that is firmly established and tenaciously adhered to. Under the Federal eight-hour law, work in excess of eight hours in any calendar day for any department of the Government counts as overtime. It is in the light of these limitations imposed by Federal law and local custom that we prescribe the following rules to govern hours of employment in the shipyard to which this decision applies:

(1) Eight hours shall constitute a day's work from Monday until Friday, inclusive, and four hours on Saturday.

(2) Work in excess of these periods on any week day shall be calculated as overtime and paid for at the rate of time and one-half.

(3) Work in excess of 60 hours a week for any employee shall not be permitted, excepting in dry docks, or when ordered by the Navy Department or the Emergency Fleet Corporation, or to protect life or property from imminent danger.

(4) Work on Sundays and the following holidays shall be paid for at the rate of double time: New Year's Day; Washington's Birthday; Decoration Day; Fourth of July; Labor Day; Thanksgiving Day; and Christmas Day.

(5) Men employed on night shift shall receive compensation five per cent (5%) higher than is paid to those employed on day shift.

Our purpose in limiting the work of employees under ordinary circumstances to 60 hours a week is to discourage the practice of excessive overtime, which we believe leads to inefficiency and lessened rather than enlarged production, and to encourage the introduction of the two and three shift systems. The feasibility of working two or three eight-hour shifts in shipbuilding plants has been conclusively demonstrated, and we urge the shipyards of the Delaware River district to take immediate steps looking toward the introduction of additional shifts in their yards.

In addition to the straight day wage and the piece-wage systems we have found in operation in different yards numerous bonus, premium, and contract systems of wage payment. The minimum-wage scale and the piece-rate scales which we prescribe are designed to introduce a greater degree of uniformity in connection with wage payments. We, therefore, direct that no bonus or premium in addition to the rates of

wages prescribed in this award, shall in future be paid, except with the express permission of this board. This is not intended, however, to prohibit shipyards from paying piece rates to employees in other occupations than those covered by the appended piece-rate scales.

Fourth. In certain departments, for example, the departments of riveting and chipping and calking, we have found a preference for the piece-wage system on the part of not only employers but also of the workers themselves. The piece rates appended hereto were the result of conferences between representatives of the yard owners and of the crafts concerned, in which concessions in the interests of harmony and greater production were made by both sides. It is intended that the list shall be from time to time extended to include operations and types of vessels, such as torpedo-boat destroyers and cylindrical oil tankers, for which fair rates have not yet been ascertained. In connection with piecework, testimony was presented to prove the existence of rules or understandings among the workers limiting the amount that any one worker should produce in a day. The origin of these rules or understandings appears to have been the experience of the workers of having the piece rate cut so soon as they showed an ability to increase their earnings beyond what the employer considered a normal wage.

In the present national emergency it is vitally important that every limitation upon output be removed. Every shipyard worker must appreciate that he is fighting for his country when he drives a rivet or calks a seam just as effectively as the soldier in the trenches when he wields his bayonet or fires a gun. And as the soldier is paid directly by the Government, so the shipyard worker must realize that he now receives his compensation from the Government, all shipbuilding now being upon Government account. To bring it home to pieceworkers that the Government is behind them and that they must be behind the Government, we direct that the following notices be printed and posted conspicuously in every department of every shipyard where piecework is carried on:

The piece rates prescribed as part of its award by the Shipbuilding Labor Adjustment Board, and printed in the piece-rate book for Delaware River and Baltimore shipyards, shall under no circumstances be lowered during the duration of the War. In the name of the people of the United States we urge employees in shipyards to do their utmost toward winning the War by removing all limitations upon output and hastening in every possible way, each according to his capacity, the production of ships.

SHIPBUILDING LABOR ADJUSTMENT BOARD.

Fifth. The methods for determining the amount of back pay to which employees in the different yards shall be entitled shall be as follows:

1. In the case of employees on the straight day wage system the new hourly wage fixed by the board is to be multiplied by the total number of hours which each employee worked from November 2 until the date when the new wage scale is put into effect. From the product thus determined the total wage, including premiums and bonuses of every kind, which the employee received for his work, is to be deducted. The balance constitutes the back pay to which he is entitled. In determining the total number of hours of employment hours counted and paid for at time and one-half, or double time when the original payment was made, are to be counted as time and one-half or double time in calculating earnings at the new rate of wages, but all other hours are to be calculated as straight time.

2. In the case of pieceworkers, a representative of the board is to determine in cooperation with representatives of the pieceworkers of each craft and of each yard by a study of the actual cards of a dozen pieceworkers of each different craft in each yard, selected so as to cover the different kinds of piecework performed upon a vessel, the average increase in the earnings of such pieceworkers resulting from calculating their earnings at the new piece rates prescribed and comparing them with the earnings they actually received. The average percentage of increase so determined for each piece-

work occupation, multiplied by the total earnings of each pieceworker of each respective occupation from November 2 until the date when the new rates become effective, shall determine the back pay which such pieceworker is entitled to receive.

Sixth. The back pay due to both day workers and pieceworkers shall be paid at the earliest date at which the elaborate calculations necessary to their determination can be completed, after the rates fixed by this decision are put into operation.

Seventh. The minimum rate of wages to be paid to different classes of employees by all of the shipyards of the Delaware River and Baltimore districts shall be those set forth in the schedule appended hereto (Exhibit A), which is made a substantive part of this award.

Eighth. For all "dirty work" in connection with the repair of vessels performed in or upon the vessel employees of the different drafts shall receive 10 cents an hour more than the minimum hourly rates prescribed in schedule "A" of this decision.

Employees engaged on repair work in or upon vessels shall receive double time for all overtime over eight hours from Monday until Friday and over four hours on Saturdays, as well as on Sundays and the holidays specified in section third.

Ninth. Rates of wages now being paid to individual employees in excess of the minimum rates fixed are in no wise altered or affected by the establishment of these rates.

Tenth. The piece rates to be paid for riveting to riveting gangs are those set forth in the schedule appended hereto (Exhibit B). The division of the riveting gang's pay in accordance with these rates is to be in the following proportions: To the riveter, forty-four per cent (44%); to the holder-on, thirty-three per cent (33%); and to the heater, twenty-three per cent (23%).

Eleventh. The piece rates to be paid for chipping and calking and drilling and reaming are those set forth in the schedules appended hereto (Exhibits C, D, and E).

Twelfth. The piece rates to be paid to linemen in the William Cramp & Sons Ship & Engine Building Co., and in other shipyards employing linemen at piecework, are those set forth in the accompanying schedule (Exhibit F).

Thirteenth. No reduction in any of these piece rates is to be permitted on the part of any shipyard in the Delaware River district during the duration of the War.

Fourteenth. Believing that in this national emergency past differences between employers and employees must be forgotten in the common determination to produce the maximum possible number of ships, the board will not tolerate any discrimination either on the part of employers or employees between union and nonunion men.

Fifteenth. Rates of wages for occupations not covered by this decision shall be tentatively agreed upon between the individual shipyards and employees concerned. Such tentative rates shall be reported to the examiner, who shall satisfy himself as to the fairness of the rates tentatively fixed and report a recommendation for their confirmation or modification by this board. The board shall on the basis of such report and recommendation determine a uniform minimum rate for each such occupation and add it to the rates prescribed in this award.

Sixteenth. The rates and other conditions prescribed in this decision, except as otherwise provided, shall be put into effect on or before Monday, February 25, 1918.

(Signed)	V. EVERIT MACY, <i>Chairman</i> .
(Signed)	LOUIS A. COOLIDGE.
(Signed)	A. J. BERRER.

WASHINGTON, D. C., *March 1, 1918.*

EXHIBIT A.

Minimum-wage scale for journeymen, specialists, helpers, and laborers in specified crafts in Delaware River and Baltimore shipyards.

	Rate per hour.		Rate per hour.
Acetylene department:		Bolting and liner department:	
Burners, first class.....	\$0. 65	Bolters.....	\$0. 50
Burners, second class.....	. 60	Liner men.....	. 54
Grinders.....	. 50	Helpers.....	. 42½
Chippers.....	. 50	Cement department:	
Welders.....	. 65	Cementers.....	. 50
Helpers.....	. 46	Helpers.....	. 42½
Anglesmith department:		Chipping and calking department:	
Anglesmiths, heavy fires.....	. 87½	Tank testers.....	. 70
Anglesmiths, heavy fires, helpers.....	. 55	Hand chippers and calkers....	. 70
Anglesmiths, other fires.....	. 72½	Pneumatic chippers and calkers.....	. 65
Anglesmiths, other fires, helpers.....	. 46	Packers.....	. 50
Furnace men on shapes and plates (ship work).....	. 82½	Cleaning department:	
Electric welder.....	. 65	Leader.....	. 55
Blacksmith shop:		Laborers.....	. 40
Hammer and machine forgers, heavy.....	1. 35	Coppersmith department:	
Heater.....	. 55	Coppersmiths.....	. 70
Lever men or cranemen.....	. 70	Helpers.....	. 46
Helpers.....	. 50	Drilling and reaming department:	
Hammer runner, heavy.....	. 55	Drillers.....	. 60
Blacksmiths, heavy fires.....	. 87½	Reamers.....	. 50
Blacksmiths, heavy fires, helpers.....	. 55	Electrical department:	
Blacksmiths, other fires.....	. 72½	Electricians, first class.....	. 70
Blacksmiths, other fires, helpers.....	. 46	Electricians, second class.....	. 65
Drop forgers.....	. 70	Wiremen.....	. 55
Drop forgers' helpers.....	. 50	Joiners.....	. 70
Bolt makers.....	. 72½	Machinists, first class.....	. 72½
Bolt makers' helpers.....	. 46	Helpers.....	. 46
Laborers.....	. 40	Erecting department:	
Liner forgers.....	. 55	Leading men.....	. 85
Liner forgers' helpers.....	. 46	Marine erectors, first class ¹.....	. 72½
Boiler shop:		Marine erectors, second class....	. 62½
Boiler makers.....	. 70	Specialist or handy man.....	. 52
Drillers.....	. 60	Helpers.....	. 46
Holders-on.....	. 50	Fitting-up department:	
Rivet heaters.....	. 40	Fitters, first class.....	. 72½
Flange turners.....	. 75	Fitters, second class.....	. 65
Helpers.....	. 46	Regulators, first class.....	. 60
Slab furnace men.....	. 75	Regulators, second class.....	. 52½
Planer hands.....	. 55	Helpers.....	. 46
		Foundry department:	
		Molders and core makers.....	. 72½
		Cupola tenders.....	. 72½
		Helpers.....	. 46

¹ Understood to include machinists, plumbers, and pipe fitters.

	Rate per hour.		Rate per hour.
Foundry department—Concld.		Pattern shop:	
Hand and machine chippers...	\$0. 50	Pattern makers.....	\$0. 75
Laborers.....	. 40	Laborers.....	. 40
Furnace department:		Rigging department:	
Leaders.....	. 67½	Marine leaders.....	. 75
Firemen and helpers.....	. 55	Marine riggers.....	. 62½
Strikers.....	. 55	Crane leaders.....	. 75
Hull engineering department:		Crane-gang leaders.....	. 67½
Marine erectors, first class¹.....	. 72½	Cranemen.....	. 60
Marine erectors, second class...	. 62½	Erector leaders.....	. 60
Specialists or handy men.....	. 52	Erectors.....	. 50
Joiners.....	. 70	Riveting department:	
Helpers.....	. 46	Rivet testers.....	. 70
Joiner department:		Stage builders.....	. 57½
Joiners.....	. 70	Hand riveters.....	. 70
Machine men.....	. 70	Pneumatic riveters.....	. 65
Helpers.....	. 42½	Holders-on.....	. 50
Lumber department:		Heater boys.....	. 38
Machine men.....	. 65	Passer boys.....	. 30
Helpers.....	. 42½	Helpers.....	. 46
Machine shop:		Ship carpenter's department:	
Machinists, first class.....	. 72½	Ship carpenters, first class.....	. 70
Machinists, second class.....	. 62½	Ship carpenters, second class..	. 65
Specialists or handy men.....	. 52	Fasteners.....	. 60
Helpers.....	. 46	Erectors.....	. 50
Material labor department:		Helpers.....	. 42½
Engineers, locomotive.....	. 65	Wood calkers.....	. 70
Operators, locomotive, canti- lever, gantry, and other cranes of over 3 tons.....	. 70	Wood reamers.....	. 55
Operators, stiff-legged derricks.	. 68	Ship shed department:	
Hoisting and portable firemen..	. 50	Punchers.....	. 55
Locomotive conductors.....	. 50	Planer and scarier.....	. 55
Road crane conductors.....	. 50	Countersinkers.....	. 55
Mold loft:		Drillers.....	. 60
Gang leaders.....	. 85	Bending rollers.....	. 62½
Loftsmen, first class.....	. 82½	Mangle rollers.....	. 57½
Loftsmen, second class.....	. 72½	Pressmen, first class.....	. 62½
Joiners.....	. 70	Pressmen, second class.....	. 55
Helpers.....	. 42½	Offsetters.....	. 55
Paint department:		Sawyers.....	. 47½
Painters and polishers.....	. 60	Helpers.....	. 46
Helpers.....	. 42½	Ventilation department:	
		Layers-out.....	. 70
		Sheet-metal workers.....	. 70
		Helpers.....	. 46

Rates for employees engaged in construction work.

	Rate per hour.
Operators, locomotive cranes.....	\$0. 82½
Blacksmiths.....	. 72½
Molders.....	. 72½
Plumbers.....	. 72½
Pipe fitters.....	. 72½
Sheet-metal workers.....	. 70

	Rate per hour.
Carpenters.....	\$0.70
Electricians, first class.....	.70
Electricians, second class.....	.65
Wiremen.....	.55
Engineers.....	.65
Painters.....	.60
Common laborers.....	.35

NOTE.—For Exhibits "B" to "G" see printed piece-rate book.

RECENT WAGE STUDIES AND THE DEMANDS OF THE LOCOMOTIVE FIREMEN.

The Brotherhood of Locomotive Firemen and Enginemen have recently submitted demands for increased wages to the Director General of Railroads. These demands were substantially as follows: (1) Ten per cent increase in wages; (2) a minimum wage of \$3.50 a day; and (3) time and one-half for overtime for all employees except those engaged in passenger service. Hearings have just been held by a Federal wage commission appointed to consider the question of wage increases of railroad employees.

The brief submitted by the brotherhood¹ contains valuable wage and cost-of-living data. It also discusses the effect of the recent Federal eight-hour law upon wages and hours, and reviews the occupation of locomotive firemen from the viewpoint of wages, hours, hazard, skill, and other conditions of employment. The data presented in the brief tends to show (1) that the wage level of firemen and hostlers in the railroad service is very much lower than that in a large number of other occupations representing many lines of industry; and (2) that they have not been able at their prevailing rates of pay, in face of the unprecedented advances in living costs, to maintain their former standards of living. The wage statistics, other than those for firemen, upon which the argument for increased wages is based, are taken from a recent report on "Wages and the War," compiled by Hugh S. Hanna and W. Jett Lauck.²

The following table shows the money compensation for eight hours' work in various occupations and industries for the years 1911-12, 1914, and 1917.

In order that comparison might readily be made between the earnings of firemen and those of other occupations, all entries have been put on the basis of the amount earned in eight hours of work. Most of the occupations shown are on an actual eight

¹ Argument and brief submitted on behalf of locomotive firemen and hostlers, by W. S. Carter, president, Brotherhood of Locomotive Firemen and Enginemen. Cleveland, The Doyle & Waltz Printing Co., February, 1918. 285 pp.

² Wages and the War: A summary of recent wage movements. By Hugh S. Hanna and W. Jett Lauck. Cleveland, The Doyle & Waltz Printing Co., 1918.

hour basis, but in a few instances, as in the iron and steel industry, the actual hours may be much longer.

Examination of the table shows that, with extremely few exceptions, the wage level of the large number of occupations given, representing many lines of industry is very much higher than that of firemen and hostlers in railroad service. Unless the rates of pay of firemen and hostlers are raised to the level prevailing in other lines of industry for the same work, the firemen, in order to maintain a minimum standard of existence, will necessarily have to seek employment in other industries. Such a result would be highly unfortunate, as it would further cripple the railroads, which are already operating under many difficulties.

COMPARATIVE STATEMENT OF EARNINGS FOR EIGHT HOURS OF LABOR IN VARIOUS OCCUPATIONS AND INDUSTRIES, BY SPECIFIED YEARS.

Occupation.	1911-1912	1914	1917	Per cent increase December, 1917, over—	
				1911	1914
Pattern makers (shipyards, San Francisco).....	\$5.00	\$5.00	\$7.15	43	43
Sheet-metal workers (shipyards, San Francisco).....	4.00	4.00	6.60	65	65
Bricklayers (average of 39 cities).....	5.17	5.46	15.83	13	7
Plasterers (building trades, average, 35 cities).....	5.14	5.42	25.79	13	7
Machinists (shipyards, San Francisco).....	4.00	4.00	5.77	44	44
Blacksmiths (shipyards, San Francisco).....	4.00	4.00	5.77	44	44
Riveters and calkers (shipyards, San Francisco).....	3.60	3.60	5.77	60	60
Structural-iron workers (building trades, average, 32 cities).....	4.58	4.97	5.62	23	13
Plumbers and gasfitters (building trades, average, 37 cities).....	4.50	4.96	5.59	24	13
Steam fitters (building trades, average, 33 cities).....	4.66	4.86	5.56	19	14
Cement workers, finishers (building trades, average, 18 cities).....	4.72	4.74	5.53	13	12
First blacksmith, bituminous coal (Hocking Valley district).....	2.96	3.12	5.27	78	69
Stonemasons (building trades, Massachusetts).....	4.56	4.74	5.21	14	10
Loftsmen (shipyards, Delaware River).....	3.90	3.12	5.16	.....	65
Inside wremen (building trades, average, 35 cities).....	3.90	4.22	5.07	30	20
Tracklayers, cagers, drivers, trip-riders, water haulers, machine haulers, timbermen, wiremen and motormen, bituminous coal (Hocking Valley district).....	2.70	2.84	5.00	85	76
Lathers (building trades, Massachusetts).....	3.94	4.20	4.95	26	18
Pipemen, bituminous coal (Hocking Valley district).....	2.63	2.78	4.92	87	77
Sheet-metal workers (building trades average, 31 cities).....	3.74	4.14	4.81	29	16
Shipfitters (navy yard, Philadelphia).....	3.44	3.52	4.80	40	36
Tracklayers' helpers, dumpers and trimmers, bituminous coal (Hocking Valley district).....	2.49	2.62	4.75	91	81
Carpenters (building trades, average, 38 cities).....	3.83	4.06	4.72	23	16
Shipsmiths (navy yard, Philadelphia).....	3.52	3.52	4.72	34	34
Coppersmiths (navy yard, Philadelphia).....	3.54	3.68	4.72	33	28
Machinists (navy yard, Philadelphia).....	3.60	3.76	4.72	81	26
Pattern makers (navy yard, Philadelphia).....	3.76	3.76	4.72	26	26
Pipe fitters (navy yard, Philadelphia).....	3.28	3.44	4.72	44	37
Linotype operators, day, newspapers (average of 27 cities).....	4.18	4.39	4.66	11	6
Compositors, day, newspapers (average of 38 cities).....	4.12	4.33	4.59	11	6
Machinists (shipyards, Delaware River).....	2.64	2.64	4.40	.....	67
Electrotypers, finishers (average, 25 cities).....	3.49	3.69	4.09	17	11
Boiler makers (southeastern railroad shops).....	3.01	3.29	4.09	36	24
Blacksmiths (southeastern railroad shops).....	3.12	3.28	4.04	29	23
Machinists (southeastern railroad shops).....	2.99	3.14	4.04	35	29
Longshoremen, daywork (New York City).....	2.64	.....	4.00	52	.....
Granite cutters (building trades, Massachusetts).....	3.23	3.37	4.00	24	19
Sheet-metal workers (shipyards, Delaware River).....	.....	2.40	4.00	.....	67
Electricians (shipyards, Delaware River).....	.....	2.40	3.96	.....	65
House painters (building trades, Massachusetts).....	3.22	3.41	3.94	22	16
Decorators (building trades, Massachusetts).....	3.24	3.45	3.92	21	14
Paper hangers (building trades, Massachusetts).....	3.13	3.38	3.91	25	16
Firemen (Chicago, Burlington & Quincy Railroad, freight service, 0-1-170,000 pounds and less than 200,000 pounds on drivers).....	3.75	3.75	2.75	.....	.....
Firemen (Chicago, Burlington & Quincy Railroad, freight service, 0-2-200,000 and less than 250,000 pounds on drivers).....	.....	3.75	3.75	.....	.....
Core makers (metal trades, Massachusetts).....	2.75	2.76	3.66	33	33
Greasers and couplers, bituminous coal (Hocking Valley district).....	1.48	1.56	3.64	146	133

¹May, 1917.

²October, 1917.

³July 1, 1917.

⁴August, 1917.

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COMPARATIVE STATEMENT OF EARNINGS FOR EIGHT HOURS OF LABOR IN VARIOUS OCCUPATIONS AND INDUSTRIES, BY SPECIFIED YEARS—Concluded.

Occupation.	1911-1912	1914	1917	Per cent increase December, 1917, over—	
				1911	1914
Firemen (Chicago, Burlington & Quincy Railroad, freight service, D-3—140,000 pounds and less than 170,000 pounds on drivers).....	\$3.60	\$3.60	\$3.60	.....	.....
Blacksmiths (shipyards, Delaware River).....	.....	1.76	3.60	.....	105
Labor (shipyard, San Francisco).....	2.40	2.40	3.57	49	49
Hod carriers (plaster tending, average, 30 cities).....	3.03	3.16	3.55	17	12
Buttlers (metal trades, Massachusetts).....	2.73	2.54	3.44	26	35
Hod carriers (mason tending, average, 30 cities).....	2.73	2.96	3.30	21	11
Firemen (Chicago, Burlington & Quincy Railroad, passenger service, O-1 Class—170,000 pounds and less than 200,000 pounds on drivers).....	3.20	3.20	3.20	.....	.....
Firemen (Chicago, Burlington & Quincy Railroad, passenger service, D-3 Class—140,000 pounds and less than 170,000 pounds on drivers).....	3.05	3.05	3.05	.....	.....
Bakers, second hands (Massachusetts).....	2.31	2.54	2.93	27	15
Firemen (Chicago, Burlington & Quincy Railroad, passenger service, H-3 Class—100,000 pounds and less than 140,000 pounds on drivers).....	2.85	2.85	2.85	.....	.....
Hostlers (Northern Pacific Railway).....	\$3.35	\$3.35	2.79	\$17	\$17
Firemen (Chicago, Burlington & Quincy Railroad, switching service):					
Engines less than 140,000 pounds on drivers.....	\$2.50	2.70	2.70	8	.....
Engines 140,000 pounds on drivers and over.....	.....	2.75	2.75	10	.....
Trapper boys, bituminous coal (Hocking Valley district).....	1.25	1.32	2.65	112	101
Motormen and conductors (street railways, average, 120 cities).....	2.18	2.24	2.58	18	15
Hostlers (Boston & Albany).....	2.15	2.40	2.40	12	.....
Common labor (iron and steel).....	1.28	1.44	2.32	80	60

¹ July 1, 1917.

²\$3.35 for 12 hours or less.

³ Decrease.

⁴All classes of locomotives. "Wages of locomotive firemen in switching service on the Chicago, Burlington & Quincy Railroad for 1911 were fixed as follows: 'First class yards, 25 cents per hour; all other yards, 24 cents per hour.' The day's work was fixed at 10 hours."

⁵ At main line terminals hostlers received \$2.50.

The part of the brief dealing with prices and cost of living is based primarily upon a recent report on Cost of Living and the War, issued by W. Jett Lauck.¹ In this volume the results of the more important investigations on cost of living, including budgetary and retail price studies, have been brought together. In commenting upon the increased cost of living the brief states that "locomotive firemen and hostlers in common with other wage earners have not been able at their prevailing rates of pay, in face of the unprecedented advances in living costs, to maintain their former standards of living. They have found a constantly increasing amount of their income absorbed by the primary demands of food, fuel, and rent, and have had a decreasing proportion available for clothing and sundries or the comforts of life." The annual wages of locomotive firemen are compared with certain standard workingmen's budgets in an attempt to show that such wages are inadequate to meet the minimum requirements of subsistence and comfort.

¹Cost of Living and the War. By W. Jett Lauck. Cleveland, The Doyle & Waltz Printing Co., 1918.

For the purpose of bringing out the real significance of the results of recent studies and investigations as to the increased cost of living and the minimum income or budgetary requirements of the normal family of the wage earner, the totals called for by the different studies of family budgets which have been made in recent years are submitted in comparative form below. Where the budgetary inquiry or statement has not been made in complete form, as in the case of the Washington, Canadian, or the public health department of New York City statements, the total has been estimated from the items of food, or food, rent and fuel given. This can be done with an approximate degree of accuracy for the reason that the ratios of different items to the total budgets of families of certain incomes has been well established by past investigations. The statement of the result of recent studies as to the minimum annual budgetary requirements of the wage earner follows:

	Food.	Total.
Canadian Department of Labor.....	\$607.00	\$1,518.00
State of Washington, department of labor (Seattle).....	515.00	1,287.00
Department of health, New York City, N. Y.....	673.00	1,682.00
Average of 24 principal American cities.....	660.00	1,630.00
Minimum health diet (Prof. M. E. Jaffa).....	544.00	1,360.00
Bureau of municipal research, Philadelphia.....	590.00	1,200.00
Philadelphia shipyard workers.....	640.00	1,431.00
Seattle street railway arbitration board.....	533.00	1,505.00
Dr. Jessica B. Peixotto, University of California.....	540.00	1,476.00
Unskilled laborer, New York City, February, 1917 ¹	492.00	980.00

¹ Because of advances in prices, this budget has advanced in cost to approximately \$1,200 at the present time (Feb., 1918).

From these exhibits, as well as from other facts relating to budgetary studies, it is apparent that a budget of family expenditures at the present time to cover the minimum of subsistence requires an annual wage of at least \$1,200, while a budget of expenditures to provide for a minimum standard of comfort calls for a wage which will yield annual earnings of approximately \$1,500. The wage arbitration board in the street railway dispute in Seattle fixed this minimum in December, 1917, at \$1,505.60 for motormen and conductors in Seattle and Tacoma. The cost of living is not unusually high in these cities and, as a matter of fact, is lower than in many other localities in the country. This is not a local minimum of subsistence and comfort, therefore, but one which should have a general application.

Locomotive firemen and hostlers are requesting a minimum rate of pay of \$3.50 a day. Assuming it were physically possible for a fireman to work every day in the year, including all Sundays and holidays, even under these impossible conditions his annual earnings would be only \$1,277.50 at the rate requested, which is more than \$200 below the minimum of comfort prescribed by recent budgets and approximately only the amount called for by the minimum standard of subsistence. As a matter of fact, because of the arduousness of his work, a locomotive fireman under present conditions does unusually well if he averages 300 days a year. Under actual railroad operating practice, therefore, his annual earnings at the rate requested of \$3.50 a day might range between a maximum of \$1,100 to \$1,200 per annum, which is considerably below the income indicated by recent inquiries as the bare minimum of subsistence of an average workingman's family. When it is considered further that a locomotive fireman, unlike other wage earners, must spend a considerable part of his earnings for meals and lodgings away from home, it is apparent that the request for a \$3.50 minimum is reasonable to say the least, if not inadequate. It is inadequate for the maintenance of a minimum standard of family comfort, and on this basis, should be at least \$4 a day.

The following table shows the cost of specified items of expenditure in the workingmen's budget in 1900, and the estimated cost of simi-

lar budgets in 1911, 1914, and 1917. The budget of 1900 is based upon the average expenditure of 2,567 families as ascertained by the United States Bureau of Labor Statistics and published in its report on cost of living (18th Annual Report, 1903). The figures for 1911, 1914, and 1917 are obtained by applying to the principal items of the 1900 budget the percentages of increase in those years as compared with 1900. According to these estimates the total expenditure per family increased 43 per cent from 1914 to 1917.

ESTIMATED WORKINGMEN'S BUDGETS IN 1911, 1914, AND 1917, AS COMPARED WITH 1900.

Items of expenditure.	Average expenditure of 2,567 workingmen's families in 1900.	Estimated average expenditures of a workingman's family in—		
		1911	1914	1917
Food.....	\$327.00	\$430.00	\$477.00	\$716.00
Rent.....	100.00	133.00	132.00	159.00
Mortgages.....	12.00	12.00	12.00	12.00
Fuel and lighting.....	40.00	40.00	46.00	82.00
Clothing.....	108.00	120.00	121.00	210.00
Taxes.....	6.00	6.00	6.00	6.00
Insurance.....	21.00	21.00	21.00	21.00
Organizations.....	9.00	9.00	9.00	9.00
Religious purposes.....	8.00	8.00	8.00	8.00
Charity.....	3.00	3.00	3.00	3.00
Furniture and utensils.....	26.00	26.00	30.00	39.00
Books, newspapers.....	8.00	8.00	8.00	9.00
Amusements, vacation.....	12.00	12.00	12.00	13.00
Liquors.....	12.00	12.00	12.00	14.00
Tobacco.....	11.00	11.00	11.00	12.00
Sickness, death.....	21.00	21.00	21.00	21.00
Other purposes.....	45.00	51.00	50.00	67.00
Total.....	769.00	923.00	979.00	1,401.00

REGULATION OF WAR WAGES BY COST OF LIVING IN GREAT BRITAIN.

The following statement of a new basis for regulating war wages which has been agreed upon by employers and workers in certain sections of the British textile industry, is taken from the *Textile Mercury*:¹

The agreement regulating war wages which was recently drawn up and agreed to by the employers and operatives in the bleaching, dyeing, calico printing, and finishing trades has one or two remarkable features in it. It cancels all previous war grants and bonuses, and war wages are now being regulated in accordance with the increased cost of living, perhaps the only instance on record in which advances or decreases are to be made over and above the wages ratable basis, according to the rise and fall of the cost of living as estimated by the Board of Trade and published in the *Labor Gazette*. The index figure of food and other prices will be compared with that of July 1, 1914. The scale of war wages will operate only to the index figure of 95 per cent, in increased cost of living; when that percentage is exceeded the parties will be brought together to reconsider matters. When the scheme came into operation the other week, the cost of living was estimated at 75 per cent above the index figure of July 1, 1914, which meant an increase of 18s. 6d. (\$4.50) per week to men of 18 years of age and over; 11s. 6.75d. (\$2.81) to women of 18 years of age and over; to males and

¹ *Textile Mercury*, Manchester, England, Dec. 29, 1917, pp. 383, 384.

females from 16 to 18 years of age, 9s. 3d. (\$2.25) a week; males and females under 16 years of age, 8s. 1.125d. (\$1.97) per week. A list of increases from 1 to 95 per cent (according to increase of cost of living from 1 to 95 per cent above July, 1914) has been printed, so that each operative can see at once the effect which changes in cost of living will have on the unique scale of war wages. The new arrangement affects from 50,000 to 60,000 workers in the industries named in Lancashire, Cheshire, and Derbyshire. * * * It embraces practically all classes of workers in the industry except mechanics and others engaged in maintenance and repairs of plant and machine printers whose war earnings are fixed under agreement with the respective unions for the various sections of labor.

This is the first attempt on a large scale to adopt a scientific method of regulating earnings according to the cost of living, though it is true that steel smelters and some sections of the coal trade have their wages regulated by the selling price of the output. Every three months a joint committee will meet and on the basis of last published figure of the Board of Trade will alter the rate of war grant in proportion to the rise or fall. The agreement will remain in force for a period of 12 months (or until the declaration of peace, if that event takes place earlier), and is terminable by three months' notice from either side.

WAR BONUS FOR GOVERNMENT EMPLOYEES IN AUSTRIA.¹

By an order of the Austrian minister of finance dated December 8, 1917, the payment for the first six months of 1918 of such taxes as in normal circumstances would be deducted from the salaries of Government employees is being taken over by the State. An increase of salary in form of a war bonus is granted for the same period. The increase varies with the amount of the salary and the size of the family of the employee. The recipients of the war bonus are divided into five classes: (1) Bachelors and widowers without children; (2) married men without children and widowers with one child; (3) married men with one or two children, and widowers with two or three children; (4) married men with three or four children, and widowers with four or five children; (5) married men with more than four children, and widowers with more than five children. The following table gives the highest and lowest bonuses of statutory Government employees in the five classes enumerated above:

Annual salary.	War bonus.				
	Class 1.	Class 2.	Class 3.	Class 4.	Class 5.
14,000 to 18,000 crowns (\$2,842 to \$3,654).....	\$143.72	\$326.42	\$394.63	\$462.84	\$531.05
1,600 to 2,200 crowns (\$324.80 to \$446.60).....	98.66	146.16	199.75	253.34	306.94

There are also provided bonuses for the State police force, copyists and other nonstatutory employees. Another order of the same date provides similar bonuses for retired State officials, widows and orphans of State officials, and other persons in receipt of pensions.

¹Data taken from Wiener Zeitung, Vienna, Dec. 12, 1917.

In an article on economic conditions in Austria-Hungary during 1917 as compared with those in 1913 the *Neue Freie Presse* of January 1, 1918, states that the increase in the salaries of Government officials amounts to 761,000,000 crowns (\$154,483,000) per annum.

WAR BONUSES IN FRANCE.

TRAMWAYS AND INTERURBAN RAILWAYS.

The *Journal Officiel de la République Française* publishes in full the decrees issued by the Minister of Public Works and Transports, which authorize the management of tramways and interurban railways to increase the tariff for transportation of passengers or merchandise and accessory charges for handling and storage. These increased rates have been allowed in most, if not all, cases because of increases granted wage earners, or supplementary allowances due to the high cost of living.

The lines affected are generally recognized as public utilities, and therefore under Government supervision.

In requesting an authorization for increase in tariff rates the following method of procedure is general. The concessionaire submits to the prefect of the municipality a statement showing the necessity, and also the amount of supplementary allowances to be paid employees as an "indemnity for the high cost of living." This statement is accompanied with a request for authority to increase transportation charges. After an agreement has been reached and signed by the railroad management and the prefect the proposition is submitted to the President of the Republic, who, if he approves, signs the proposal, and the Minister of Public Works issues a decree making the agreement effective, and ordering it to be entered in the *Bulletin of Laws*.

The decree may be retroactive in so far as it relates to supplementary wages, which in some cases are made payable from a date several months before the proposal was even submitted to the prefect for consideration. As an example of this the agreement between the prefect of the Somme and the director of the Economic Society of Railways was signed on September 15, 1917, and approved by the President on October 30, 1917, but the supplementation of wages dated from November 1, 1916.¹

The decrees in general cover the period of the War and one year subsequent to cessation of hostilities. It is stipulated in many agreements that a separate account must be kept both of additional receipts and of expenses resulting from these increases and that such receipts are exempt from any concession tax only in so far as the

¹ *Journal Officiel*, Jan. 2 and 3, 1918.

receipts exceed the expense. In some cases it is specified that excess net receipts shall be used in road betterment.¹ In other cases the agreement states that deficits due to the new rates may be charged to that portion of operation receipts due the municipality as a concession tax.¹

Of the various plans adopted in granting these temporary supplemental wages the following examples have been selected as showing the most frequent base upon which they are calculated, their amount, and the classes of employees benefited by them.

The General Association of Railways of the Somme adopted a dual system as a basis of such compensation.¹ The classes to which supplementary wages are paid are: (a) Male employees and females, heads of families, earning not more than 3,600 francs (\$694.80); (b) salaried persons and laborers, legally charged with the maintenance of one or more children under 16 years of age, and earning not more than 6,000 francs (\$1,158) per year.

For the first class (a) an allowance of 15 per cent is made on that portion of the earnings less than 1,200 francs (\$231.60); 10 per cent on that portion between 1,200 francs and 1,800 francs (\$347.40), it being understood that the minimum to be considered as a base for this allowance is 1,200 francs per year for men and 600 francs (\$115.80) for women, heads of families.

For the second class (b) an annual allowance is made of 50 francs (\$9.65) for the first child; 100 francs (\$19.30) each for the second and third child, and 200 francs (\$38.60) for each child under 16 years of age in addition to the third.

The second class of allowance, for family charge, is supplemental to the first class, of temporary increases in wages.

In each class those receiving the maximum basic wages or more (3,600 francs (\$694.80) in the first class and 6,000 francs (\$1,158) in the second) are granted an allowance which, when added to their annual earnings, will make them equal to the amounts received by the highest paid in each class, respectively, family charges being equal. Allowances are paid monthly and are not subject to reduction for retirement funds. An increase of 50 per cent on accessory charges is permitted to cover the anticipated increase in operating expenses.

In Saône-et-Loire a system of railroads had granted certain increases of wages dating from January 1, 1917,² but further increases became operative in response to a petition dated June 19, 1917, by which married, widowed, or divorced employees having children with whose maintenance they are legally charged receive a flat increase of 360 francs (\$69.48) per year, and unmarried employees,

¹ Journal Officiel, Nov. 7, 1917, p. 8901.

² Journal Officiel, Nov. 7, 1917, p. 8902.

and married, widowed, or divorced employees not having the maintenance of children are granted 240 francs (\$46.32). To meet these extra charges an increase of 50 per cent on accessory transportation charges is permitted.

The agreement made by the Southern Railway of France and the Department of Var,¹ including subsidiary lines, presents some novel features. The rate of increase is that generally accorded—15 per cent on that portion of earnings not exceeding 1,200 francs (\$231.60); 10 per cent on that portion between 1,200 francs and 1,800 francs (\$347.40) for all employees not receiving more than 3,600 francs (\$694.80); and an allowance to all heads of families of 50 francs (\$9.65) for one child, 100 francs (\$19.30) each for the second and third child, and 200 francs (\$38.60) for each child under 16 years of age, in addition to the third, provided the salary does not exceed 6,000 francs (\$1,158) per year.

The minimum annual increase for men is fixed at 180 francs (\$34.74) and for women at 90 francs (\$17.37).

Increased tariff is permitted, but the Department of Var agrees to reimburse the company for any deficit due to these supplementary wages, and any excess of profits due to the operation of this decree is payable into the Department's treasury.

The scale of wages adopted on December 30, 1912, between the city of Nantes, the Nantes Tramway Co., and its employees, was modified on October 7, 1917, as follows:²

Wages of motormen and motor women for the six months following the apprenticeship period (15 days), 4.25 francs (82 cents) per day; for the next six months 4.5 francs (86.9 cents) per day; after which if their work is satisfactory they are permanently employed under the following monthly scale: For the first two years, 123 francs (\$23.74) per month; for the third year, 128 francs (\$24.70); for the fourth year, 133 francs (\$25.67), and thereafter an increase of 5 francs (96.5 cents) per month for each biennial period of service up to and including the twelfth year. The maximum wages of 158 francs (\$30.49) are paid beginning with the thirteenth year of permanent service.

Ticket collectors, males or females, shall not be required to serve an apprenticeship exceeding 10 days. For the following six months they will be paid 4 francs (77.2 cents) per day of actual work. Monthly wages for the first and second years thereafter will be 118 francs (\$22.77), increased by 5 francs (96.5 cents) per month for each biennial period of service up to and including the fourteenth year of service. The maximum of 148 francs (\$28.56) is reached beginning with the fifteenth year.

¹ Journal Officiel, Dec. 18, 1917, p. 10366.

² Journal Officiel, Nov. 12, 1917, p. 9040.

Head motormen are divided into five classes. Their monthly wages vary from 153 to 193 francs (\$29.53 to \$37.25), each grade receiving 10 francs (\$1.93) more than the next lower grade. No person shall be kept more than 5 years in either of the two lower grades.

Manual laborers in depots and shops receive a minimum wage of 40 centimes (7.7 cents) per hour, after 3 years of service 42.5 centimes (8.2 cents), and after 6 years 45 centimes (8.7 cents).

Warehouse inspectors (*ouvriers-visiteurs*) are paid an hourly wage of 45 centimes at the beginning of service, and reach 50 centimes (9.7 cents) after 6 years of service.

Fitters, locksmiths, turners, molders, carpenters, painters, electricians, etc., receive from 55 centimes (10.6 cents) per hour, for new employees, to 65 centimes (12.5 cents) by regular increases through five grades.

Helpers are paid from 45 to 50 centimes (8.7 to 9.7 cents) per hour. Their number is limited to 12 per cent of the shop force.

Wages of persons engaged in maintenance of way vary from 40 to 50 centimes (7.7 to 9.7 cents) per hour, the maximum being reached after 12 years of service. Pavers receive 55 centimes (10.6 cents) per hour.

In addition, each salaried person or wage earner who has been in the service of the company two months or more is granted an allowance, because of the increased cost of living, of 1 franc (19.3 cents) per day of actual service for the period of the War and one year thereafter.

While no list of railways in operation nor of those having granted supplementary pay is available, it is believed that the number of such agreements published in the *Journal Officiel* from October 17, 1917, to February, 1918, indicates that such increases have been general.

STATE RAILROADS.

The following item appears in the report of the committee having charge of the bill to vote additional credits for national expenses during the fiscal year 1917:¹

In accordance with an agreement made between the Minister of Public Works and the more important railroad companies, dated November 10, 1916, which included the State railroad system, supplementary wages, owing to the increased cost of living, were granted to the employees, beginning with November 1, 1916.

(a) To all employees and laborers earning less than 3,600 francs (\$694.80) per year, an increase of 15 per cent on that portion of wages

¹ *Journal Officiel* (supplement), Jan. 20, 1918, p. 1746.

not exceeding 1,200 francs (\$231.60); 10 per cent on that portion between 1,200 francs and 1,800 francs (\$347.40). (b) To those legally charged with the maintenance of children under 16 years of age an allowance of 50 francs (\$9.65) for the first child, 100 francs (\$19.30) each for the second and third child, and 200 francs (\$38.60) for each child under 16 in addition to the third, provided their salary does not exceed 6,000 francs (\$1,158) per year.

The earnings of those in class (a) or (b) receiving 3,600 francs (\$694.80) or 6,000 francs (\$1,158), respectively, shall be so increased as to equal the increased wages of those in the respective classes having like family charges.

But the persistent increase in the cost of living led to a new agreement July 2, 1917, by the terms of which no modifications of allowances granted to heads of families having children with whose maintenance they are legally charged were made, but the allowances under (a) were modified as follows: An increase of 30 per cent was granted on that portion of earnings under 1,200 francs (\$231.60), 15 per cent on that portion between 1,200 francs and 1,800 francs (\$347.40), and 10 per cent on that portion between 1,800 francs and 3,600 francs (\$694.80), inclusive.

No increase shall be less than 420 francs (\$81.06) for men or 180 francs (\$34.74) for women. Temporary employees were given increases equal to permanent employees. For those receiving over 3,600 francs (\$694.80) an increase was granted equal to that granted those receiving that amount, decreased by 30 francs (\$5.79) for each 100 francs (\$19.30) of wages in excess of 3,600 francs. The minimum wages for an adult female employee was fixed at 5 francs (96.5 cents) for a normal day's work.

This latter scale of wages became effective June 1, 1917.¹

The total amount of these increases for the year was estimated to be, in round numbers, 28,018,000 francs (\$5,407,474).

CIVIL EMPLOYEES.

In addition to the regular budgets voted on December 30, 1916, and March 31, 1917, and those authorized by special laws, credits were voted to the various departments of the civil government April 7, 1917, under the title of "Supplemental pay accorded to civil employees of the State during the War, because of the increased cost of living."

The credits thus voted amounted to 46,058,280 francs (\$8,889,-248.04), which were distributed as follows:²

¹Journal Officiel, Jan. 20, 1918, p. 1773.

²Guerre de 1914. Documents Officiels. Vol. 17. Feb. 15 to Apr. 15, 1917, p. 223.

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SUPPLEMENTARY CREDITS VOTED TO THE VARIOUS DEPARTMENTS OF THE CIVIL GOVERNMENT, FRANCE, APRIL 7, 1917.

Department.	Amount.	Department.	Amount.
Finance.....	\$1,300,434	Labor and social welfare.....	\$11,194
Justice:		Colonies.....	12,120
Judicial service.....	116,958	Agriculture.....	231,446
Penal service.....	85,267	Public works:	
Foreign affairs.....	15,363	Public works.....	331,358
Interior.....	91,328	Merchant marine.....	23,392
War.....	2,012,797	Mint (<i>Monnaies et Médailles</i>).....	5,308
Armament and war manufactures.....	37,789	Government printing office.....	19,107
Marine.....	1,227,287	Legion of Honor.....	444
Instruction and fine arts:		Explosive service.....	4,516
Public instruction.....	1,884,491	National savings fund.....	13,896
Fine arts.....	29,606	Marine invalidity fund.....	347
Commerce, industry, post and telegraphs:		Total.....	8,889,248
Commerce and industry.....	21,770		
Post and telegraphs.....	1,413,030		

A decree dated May 3, 1917,¹ provided that beginning with January 1, 1917, allowances and increases for family charges (children under 16 years of age) should be accorded to the employees in the civil service of the State, in order that they may meet the increased cost of living.

The classes of employees benefited by these allowances are defined as follows:

1. Clerks, agents, and assistant agents (experts, clerks in training, and extra clerks) receiving monthly salaries.
2. Agents, assistant agents, and employees not included in class 1, but who are regularly employed or belong to an established category of employees and paid according to a regular fixed scale.
3. All other agents and assistant agents and employees having served in the same department five consecutive years.
4. Laborers permanently employed in the service of the State, or who shall have served five consecutive years in the same executive branch of service.

In no case are they accorded to (1) employees or apprentices under 16 years of age; (2) ad interim employees or persons temporarily employed because of war-imposed conditions; (3) employees whose employment in the civil service is supplemental to their profession; (4) persons who by virtue of any regulation are permitted to engage, while in the service of the State, in commerce or industry; (5) persons in the service of any department to whom increased remuneration, because of the increased cost of living, has been granted since the beginning of hostilities.

The annual allowance granted for increased cost of living is fixed at 120 francs (\$23.16) for unmarried persons, and 180 francs (\$34.74) for married persons as well as widowed, divorced or separated em-

¹ Guerre de 1914, vol. 18, p. 133.

ployees having one or more children under 16 years of age legally under their charge and living with them.

A bonus of 100 francs (\$19.30) is granted for each child under 16 years of age, or incapacitated for work by reason of infirmities, and legally under the charge and living with the employee or laborer.

Laborers and others paid by the day, piece, or task are granted daily increases as follows: Unmarried persons, 45 centimes (8.7 cents); married persons, 65 centimes (12.5 cents), with an additional allowance of 37 centimes (7.1 cents) per child.

All increases and bonuses are payable monthly, and no absence not causing loss of pay is to work forfeiture, but the annual or daily allowances are not payable to persons who receive free lodging and board.

The annual allowances are payable to unmarried persons receiving annually not more than 2,000 francs (\$386); to married persons receiving not more than 3,000 francs (\$579); to persons having 1 or 2 children to maintain and receiving not more than 3,600 francs (\$694.80); and to persons having more than 2 children and receiving not more than 4,500 francs (\$868.50).

Persons paid by the day are not entitled to the allowances mentioned if the daily earnings exceed 6.66 francs (\$1.29), 10 francs (\$1.93), 12 francs (\$2.32), or 15 francs (\$2.90), according to whether they are single, married, have 1 or 2 children, or more than 2 children, to maintain.

In case the husband and wife are both in the service an increase is allowed to but one of them, only the salary paid the one who receives the highest remuneration being considered.

These allowances for increased cost of living are reduced, when it becomes necessary, to such an extent that the accumulated amount of the bonuses and the increased remuneration shall not exceed the maximum salaries mentioned above for the respective classes of employees.

Clerks whose salaries exceed 3,600 or 4,500 francs (\$694.80 or \$868.50) may be granted an allowance for family charges (maintenance of children) to such an extent as to equalize their income with that of persons receiving smaller salaries having like family charges. This applies also to persons paid by the day receiving 12 or 15 francs (\$2.32 or \$2.90).

In determining the earnings, salaries, or wages, pensions granted by the State, Department, commune, colony, or public works, as well as all wages or salaries paid by private enterprises to the employee are considered.

These bonuses are not payable to mobilized persons.

On August 18, 1917, a still further increase was granted, becoming effective July 1, 1917. The same classes of employees paid fixed wages or salaries, with like exceptions as to age, temporary service, supplemental service, or commercial or industrial status, are given a flat increase in wages or salary per year. These increases are declared to be temporary, and not subject to any deductions for pensions, and are as follows:

An annual increase of 540 francs (\$104.22) for clerks, agents, etc., receiving not more than 3,600 francs (\$694.80) per year; 360 francs (\$69.48) for those receiving over 3,600 francs but not more than 5,000 francs (\$965). Employees receiving between 3,600 francs and 3,780 francs (\$729.54) receive an increase to bring their salaries to 4,140 francs (\$799.02) at least, and those receiving between 5,000 francs (\$965) and 5,360 francs (\$1,034.48) receive an increase sufficient to bring their salary to 5,360 francs at least.

In determining the net salary of an employee deduction must be made for any sum reserved from wages for pension funds.

In addition to these bonuses an allowance for family charges is granted for children under 16 years of age, as follows: One hundred francs (\$19.30) for each of two children and 200 francs (\$38.60) for each child additional.

Employees receiving over 5,000 francs (\$965) and having children to maintain are allowed a supplementary increase sufficient to equalize their salaries with the amount paid any other employee receiving 5,000 francs or less, having like family charges.

If both husband and wife are employed by the State, one of them only is entitled to the allowance for maintenance of children, and then only when the higher paid of the two receives a salary not exceeding 5,000 francs. If other forms of bonuses of similar nature have been previously granted, the employee may select the most advantageous, but they are not cumulative.

Assistants or temporary employees not included in the above classes, but who have been five years in the continuous service of any Government department are allowed an increase as provided by the decree of May 3, 1917 (above given), and an allowance for family charges as provided for clerks, etc., provided their salary does not exceed 5,000 francs, and that they are not of the excepted classes.

Laborers and employees paid by the day, piece, or task are granted a bonus equal in value to that granted those receiving annual salaries, the amount of such increases to be determined by each Government department, and approved by the Minister of Finance.

By ministerial decree ¹ of October 27, 1917, the decree of August 18, 1917, was extended to the colonial penitentiary department.

¹ Guerre de 1914, vol. 21-22, p. 426.

Officials and laborers paid by the day receive an increase of 1.8 francs (34.7 cents) per working day, with a maximum monthly increase of 45 francs (\$8.69) for those whose wages do not exceed 12 francs (\$2.32) per day, and allowances for family charges of 37 centimes (7.1 cents) per day, with a maximum of 8.33 francs (\$1.61) per month, for each of one or two children under 16 years of age, and 74 centimes (14.3 cents) per day, with a maximum of 16.66 francs (\$3.22) per month, for each child in addition to the second. Family charges are payable in full even upon stoppage of wages, or when, due to sickness, half wages only are paid.

The executive of each Government department may by decree grant bonuses to cover increased cost of living, and allowances for family charges, to employees in the department, including those in foreign service, if such employees are French subjects.

MINIMUM WAGE.

MINIMUM WAGES IN MERCANTILE ESTABLISHMENTS IN KANSAS.

The industrial welfare commission of Kansas has recently issued an order, effective March 18, 1918, fixing a minimum wage of \$8.50 per week for experienced women workers in mercantile establishments of that State. The apprenticeship period is fixed at one year, the minimum weekly wage for the first six months to be \$6 and for the second six months, \$7. The minimum for minors is to be \$5 per week, and not more than 20 per cent of the force may be apprentices or minors.

This wage order supplements an earlier order establishing maximum hours of labor in mercantile establishments. Other orders, already issued, have dealt with hours of labor and sanitary conditions in laundries.¹

The text of the new wage order is as follows:

No person shall employ any experienced female worker in any mercantile establishment in the State of Kansas at a weekly wage rate of less than \$8.50.

An experienced female worker is any worker who has served the apprenticeship period. Any female worker who can show to the satisfaction of the commission that she has had experience equivalent to such apprenticeship shall receive the minimum wage without the apprenticeship in this State. The length of the apprenticeship term for female workers in mercantile establishments shall be one year, and such apprenticeship term shall be divided into two periods of six months each.

No person shall employ any female worker except as hereinafter provided in any mercantile establishment for the first period at a weekly wage rate of less than \$6, or for the second period at a weekly wage rate of less than \$7.

Minors employed in mercantile establishments in the capacity of bundle wrappers and cash boys or cash girls shall be paid not less than \$5 a week, after six months of service shall be paid not less than \$5.50 a week, and after 12 months not less than \$6 per week. Not more than 20 per cent minors and apprentices shall be allowed in any one establishment.

Said order shall become effective on and after March 18, 1918.

After such order is effective, it shall be unlawful for any employer in the State of Kansas affected thereby to fail to observe and comply therewith, and any person who violates said order shall be deemed guilty of a misdemeanor, and anyone convicted thereof shall be punished by a fine of not less than twenty-five dollars (\$25) nor more than one hundred dollars (\$100) for each such misdemeanor.

¹See MONTHLY REVIEW, October, 1917, and February, 1918, for these earlier orders of the Kansas Industrial Welfare Commission.

WOMEN IN INDUSTRY.

EFFECT OF THE WAR UPON THE EMPLOYMENT OF WOMEN IN ENGLAND.

BY MARY CONYNGTON.

In tracing the effect of the war upon the employment of women in England, three distinct phases are visible: First, the period of widespread unemployment and of organized effort to relieve it; second, the reabsorption into industry of the unemployed women, often into some industry in which they had formerly played but a minor part, accompanied by their transfer from one industry to another; and third, an organized effort to increase the supply of women workers, to induce women who had left industry to return to it, women who had never worked for wages to take up gainful employment, and women working in the less essential to transfer to the more essential trades. These phases are not sharply differentiated; all three might and to some extent did exist at the same time, though in different localities and occupations. Owing partly to the immobility of labor, especially female labor, and partly to the difficulty of putting a worker trained to one kind of work into another and totally different trade, it has happened that women in one industry might be working on short time, or actually unemployed, while in another there was a crying need for help. Nevertheless, these three stages were in the main consecutive.

UNEMPLOYMENT; RELIEF MEASURES.

The immediate result of the war was widespread unemployment. In July, 1914, not including women working as employers or on their own account or as domestic servants, there were in England and Wales some three million and a quarter women gainfully employed. Of these, 2,184,000 were in industrial pursuits, the largest single group, 863,000, being in the textile trades; then came the clothing trades with 620,000; next in order but far below came the food trades with 196,000, the metal trades with 170,000, and the paper and printing trades with 147,000. The wood trades employed 44,000 and the chemical trades 40,000. Of those not industrially employed, commercial occupations accounted for 496,000, the local government service took 198,000, the civil service employed 66,000, agriculture 80,000, and the transport service 19,000.¹ Excluded from

¹ The Labour Gazette, London, August, 1917, p. 274.

this enumeration are an uncertain number of women working or in trade on their own account, and the great body of domestic servants, who in the census of 1911 were given as numbering 1,734,000.¹ Allowing for the natural increase from 1911 to 1914, it is estimated that altogether at the outbreak of the War there were approximately five million women at work in England and Wales.²

Among these the immediate effect of the declaration of war was even more disastrous than among men. The stoppage of commerce and industry due to the financial shock, the disorganization of the coal, iron, and steel industries, the cancellation of contracts with the warring countries, the interruption of the transport system, and the impossibility of securing raw materials for manufacture, affected them as seriously as the men, while the panic economy which caused an almost complete stagnation of the luxury trades fell with special severity on women. Thousands of dressmakers, milliners, workers in flowers and feathers, lace makers, and the like were thrown out of employment; laundresses found their trade gone, and domestic servants, ladies' maids, and charwomen were dismissed. August was a time of such confusion that no figures of unemployment among women were obtainable, but in September the published data show a serious situation:

In London alone between 40,000 and 50,000 women and girls are out of work. In addition to these, 200,000 women and girls are working short time. In laundries * * * between 3,000 and 4,000 have been discharged, and of the remainder over 20,000 are earning on an average about half of their usual wages. Hundreds of women have been dismissed in the printing trades, and the large majority are working short time.³

Taking the whole country, instead of London alone, the Labor Year Book states that by September the number of women employed in the staple industries, excluding agriculture, had decreased by 190,000,⁴ while many more were working less than full time.

To some extent the situation was met by relief work. In August a central committee on women's employment was formed which opened workrooms and training centers, and also did something in the way of inducting women into new trades. During the winter of 1914-15 there was much demand for the services of this committee, and by March 31, 1915, its disbursements amounted to £72,953 ⁵ (\$355,025.77); during the next six months they sank to £15,967 ⁶ (\$77,703.41), while during the winter of 1915-16 only £241 ⁷ (\$1,172.83) was advanced in aid of women's workrooms. Thereafter

¹ Census of England and Wales, 1911; Occupations, Part I, p. 76.

² Fabian Tract, No. 178: The War, Women, and Unemployment, by Sidney Webb, p. 4. Fabian Society, London, 1915.

³ Daily Citizen, London, Sept. 10, 1914.

⁴ Labour Year Book, 1916, p. 79. 1 Victoria St., London.

⁵ Report on the Administration of the National Relief Fund up to March 31, 1915. (Cd. 7756.)

⁶ Report on Administration of the National Relief Fund up to September 30, 1915. (Cd. 8169.)

⁷ Report on Administration of the National Relief Fund up to March 31, 1916. (Cd. 8286.)

unemployment among employable women became a matter calling for transportation rather than relief, and the committee's work was directed into other channels.

REABSORPTION OF UNEMPLOYED WOMEN INTO INDUSTRY.

The process of reabsorption of unemployed women into the ordinary course of industry began at an early period after the first shock of war. The demand for clothing for the army was immediate, and firms competent to handle this work needed every worker they could get. Unfortunately, however, not all sewing women were qualified for this work, so although this relieved the situation there was still much distress among workers in the needle trades. Other kinds of work showed an improvement, although the process was slow. By the end of October, 1914, the Board of Trade reported that employment among women had shown considerable improvement, chiefly owing to the demand for army goods; the cotton trade had improved slightly, although much short time still prevailed; the woolen, worsted, hosiery, and dyeing trades showed improvement, but dress-makers, servants of various kinds, and "clerks and typists formerly employed in commercial houses with a continental trade" were still finding it difficult to secure employment.¹ In spite of this improvement, however, the number of women employed was smaller by 139,000 than in July, 1914, and many of those at work were on short time. In the following months occurred one of the earliest notices of the flow of women into the engineering trades. In this line of work, declares the *Labor Gazette*—²

Employment in November was very good, * * * the demand for men on work connected with the war exceeding the supply, and overtime being in operation to a large extent. * * * Employment was very good upon Government work, especially at Newcastle, where additional men and women from Lancashire were engaged, and night shifts and overtime were in operation.

With the coming of the new year improvement was manifest along several lines. The clothing trades were busy, and from January, 1915, onward, the Board of Trade labor exchanges reported more applications from the tailoring trade for female workers than could be satisfied. Women were entering the metal trades in constantly increasing numbers and were making their way into other trades which had not theretofore been open to them. For a time this process was checked by the opposition of the men workers. The great demand for women was in the production of munitions and equipment for the forces. Many of the trades involved were in the hands of strongly organized unions of highly skilled men, who looked with grave distrust upon the introduction of untrained women and the inevitable breaking down of trade-union standards which this

¹ Board of Trade Labour Gazette, November, 1914, p. 395.

² *Idem*, December, 1914, pp. 437, 438.

implied. The Government held a series of conferences with the trade-unions over the questions, and by April, 1915, a compromise had been arranged, under which women were thereafter employed without question, not only in munitions factories, but in all controlled establishments.

By the time this agreement was reached the scarcity of workers caused by the enlistment of the men was becoming apparent in some of the nonmunition trades. The Government compromise suggested the way of meeting the opposition of the men, and agreements were made between employers and trade-unions in several trades providing for the admission of women to what had always been considered men's work. The agreements usually stipulated that the relaxation of trade-union rules was for the duration of the war only, that at its conclusion the men who had gone into the army should have their old places back, and that none of the women should be retained unless there should be a scarcity of male help. In the chinaware and earthenware trades such an agreement was signed in May, 1915, and in the same month the union of slipper makers agreed to a similar relaxation of rules. The unions of the boot and shoe trade fell into line in June; in July a general agreement was reached between the employers' and the operatives' associations in the cotton trade of Lancashire, and within the next six months a number of agreements were signed between the employers and the unions in the cotton trade throughout England. Brass workers signed similar agreements in October, and hosiery workers in December, so that by the end of the year the admission of women to new trades and occupations had made considerable progress.

Long before the end of the year, too, the Government was making strong efforts to increase their numbers, both in the munitions trades and in several other kinds of work. By the spring of 1915 the importance of the munitions supply was keenly realized, and at the same time Kitchener was calling for more and more men. Women could be used to free men; so a campaign of patriotism was preached, calling on women to come into the factories and make supplies for the men who had left. In the main, during 1915, these workers seem to have come from the women already engaged in wage earning, or who had at some previous time been so engaged. The class of domestic servants supplied many of them, and complaints about the scarcity of household workers began to appear before the middle of the year. As the need for more skillful workers became greater, the Government started training classes for munitions workers, in which women learned how to handle the tools at which they would first be put in the factories. Some of the large munition makers did the same thing. As the year wore on and some of the factory workers showed signs of

breaking under the strain of long hours and continuous speeding up, a new development arose—the training of the week-enders. These were usually women of some means and some leisure, who did not wish to enter the munitions trades as a permanent thing, or were unable to do so, but who could and would give a day or more at the end of the week in order to replace some regular worker, assuring her an intermission of 24 hours—for at that time the seven-day week was common. Training classes were established for these week-end workers, and by November it was reported that the plan, which had been begun at Erith, had been extended to the Tyne and Clyde districts, and that “hundreds of educated women are now employed at the week-ends in this way.”¹

On March 22, 1915, the Government appointed a committee “to consider the conditions of retail trade which can best secure that the further enlistment of men or their employment in other national services may not interfere with the necessary operations of that trade.” The substitution of women for men was still looked upon as a dubious experiment, so the committee went about its work cautiously and not before October did it bring in a report. As a beginning, it had asked employers whether they would be willing to reinstate at the end of the war men who had left in order to enlist, and many of the employers had promised to do so. Therefore, it was urged, no unfairness to men would result from the employment of women. This point being settled, the committee reported that women could be substituted for men largely, even in occupations like that of driving delivery vans, which at first thought seemed entirely unsuitable. Men could not be altogether dispensed with, as in some of the retail trades there was need of handling goods too heavy for women to manage, but even here, by rearranging the work, a small nucleus of men would be sufficient, women taking over everything but the heaviest work. Various difficulties would be found in adapting the conditions and customs of the work to women, but the committee thought these could be overcome, and reported that employers in general seemed willing to make the experiment. Going outside the strict limits of its commission, the committee also recommended that women should be employed in the wholesale trades. This, it found, had been done in a number of large establishments, and had resulted “in the freeing of a very remarkable number of men from the wholesale warehouses for enlistment in the forces.”

At just about the time this committee was making its report another was appointed “to consider the conditions of clerical and

¹ Women's Employment, issued by the Women's Employment Publishing Co. (Ltd.), 5 Princes St., Cavendish Square, W. London, Dec. 3, 1915, p. 9.

commercial employment with a view to advising what steps should be taken, by the employment of women or otherwise, to replace men withdrawn for service in the military forces." The need for men was acute by this time, and the idea of using women in their places had lost its strangeness, so this committee went to its point very directly. There were still about 300,000 men engaged in these occupations in England and Wales, it found. Some of these were not physically capable of military service, and some on account of their specialized training and long experience were indispensable if the commerce of the country were to be carried on. Altogether, perhaps as many as 150,000 could be spared for the army. Substitutes must be secured in the main from among women. To a considerable extent women were already being drawn on, but for the most part they were not trained in clerical work, and it was highly desirable to establish courses of training at once. As in the case of the committee on retail trade this committee expressly stated that this employment should be looked upon as only a temporary expedient and that employers should hold their places for the men who enlisted. Also, it was suggested that women's wages should, "as far as conditions permit and the work deputed to them reasonably justifies," be based on the rate of wages paid the men they replaced.

A beginning was also made during 1915 in substituting women for men in agriculture. As the shortage of farm labor became apparent, there were numerous propositions to release children from school that they might take up the work. There was considerable opposition to this course, and the employment of women was urged as an alternative. The trouble with this plan was that it did not appeal either to the farmers or to the women. The farmers were doubtful about the ability of women to do the work, objected to the difficulty of accommodating them, and were much disinclined to pay them any wage which would attract them. The women objected to the low wages and the unattractive conditions of work, and were far more inclined to go into other occupations. By March the Board of Trade, in consultation with the Board of Agriculture, decided upon active steps to recruit women for service on the land. A central committee—the War agricultural committee—was formed, and it was planned to organize under it committees of women in every county who should work up a sentiment in favor of farm work for women. By the end of the year the committees were well organized and carrying on an active propaganda. A large number of women were enrolled through these efforts—17,000, according to one report¹—but as enrollment only meant that a woman was willing to put in at agricultural labor such time as she could spare, the amount varying

¹ Women's Work on the Land, by G. A. Greig, London [1916], p. 27.

from a few hours a week to full time, it was quite uncertain how helpful this registration might prove.

By the end of 1915, then, unemployment among women had greatly decreased, and what remained was either local or confined to a few classes. The general effort to economize had resulted in much unemployment for woman housekeepers, governesses, companions, and the like. Workers in the luxury trades who had not transferred to other callings also suffered, and so did the professional and semi-professional classes. Among these, doctors and nurses were in much demand, but musicians, artists, and those of similar callings found little to do in their own lines, and were not well adapted for taking up the trades in which women were wanted.

As to local unemployment, a good deal had been done in the way of transferring women from places where their work was not needed to places where it was in demand:

In the West Midlands district alone, where before the war the migration of industrial women was practically unknown, over 4,000 women were during 1915 placed by the employment exchanges in employment away from their own districts, the greater number on munitions work, and others as artificial silk workers, rubber workers, chocolate makers, farm hands, and as substitutes for men in various kinds of work.¹

On the whole, during the year 1915 the nation seemed more inclined to use the muscles than the minds of its women. As manual workers they were welcome, but there was much hesitation about admitting them to the better paid and more responsible pursuits in which intelligence and training were needed. One of the women's journals thus sums up the situation at the end of the year:

It has been chiefly in voluntary work that the woman of the professional class has found new outlets. * * * There are women capable of filling a number of higher posts which have not yet been opened to them. Up to the grade of simpler clerical work replacement has been going on; above that line, except in the teaching profession, replacement has hardly begun.²

EFFORTS TO INCREASE SUPPLY OF WOMEN WORKERS: DEVELOPMENTS OF 1916.

During the year 1916 the problem of unemployment among women practically passed from sight, and what has been called the second phase, the reabsorption of women into industry by natural demand, passed into the third, the period of sustained effort to secure all available workers and to increase the supply by inducing those who had never before been wage earners to become such. Early in the year the Government issued an appeal to employers pointing out the vital importance of keeping up production in spite of the reduction of man power, and urging them to make every possible effort to

¹ Board of Trade Labour Gazette, London, March, 1917, p. 93.

² Women's Employment, London, Dec. 3, 1915, p. 7.

utilize women for this purpose, either in direct substitution for the men who had been withdrawn or by some subdivision or rearrangement of their work. As one step toward securing this result local committees to deal with the question of women's employment were established in various parts of the country. These committees were formed of representatives of both employers and workpeople, and included also members of such organizations as the Women's Cooperative Guild, the Y. W. C. A., and the like. In general they were authorized to assist the local labor exchanges in extending the employment of women in industry, and in this capacity their functions varied considerably from place to place. As a beginning the employers of the district were generally canvassed to find out what were their needs, present and prospective, in the way of women workers. Armed with this information, the committee set out to find the workers. In some places a house-to-house canvass was undertaken to find women willing to take up the work; in others, public meetings were held, handbills and posters displayed, funds were raised to enable workers to journey to the places where they were needed, crèches were started in which married women might leave their babies while they went to work, and generally every effort was used to bring in the workers. Employers, too, were labored with.

Active efforts to extend the substitution of women for men in industry have been taken by the committees at Leeds, Leicester, Nottingham, and other places, and conferences have been arranged with employers in the leading trades in these towns to discuss the matter. Successful steps have been taken by the Bristol committee to persuade a number of unemployed women to undergo a training for work in the boot trade hitherto performed by men.¹

Another feature of the year 1916 was the increased effort to interest women in farm work. No one was as yet ready to declare food raising as important as munition making, yet it was becoming increasingly evident that food must be had, that the supplies obtainable from abroad were smaller than usual, and that the U-boat warfare, combined with a scarcity of tonnage, made it highly desirable to raise as much as possible in England. Consequently the women's county War agricultural committees, which had been organized in 1915, became centers of active propaganda. The counties were subdivided and local committees or registrars or both appointed for each village. Public meetings were held, house-to-house canvasses made, armlets and certificates were issued to those who took up the work, and the strongest possible appeal on grounds of patriotism was made to women to become farm workers. It was freely admitted that wages were distressingly low, that work was heavy and hours long, but

¹ Board of Trade Labour Gazette, London, November, 1916, p. 403.

then "the need was a national one."¹ On the same grounds of patriotism, farmers were urged to employ women, especially for all the lighter forms of farm work; the idea of light work seems to have included everything but plowing.

While the county agricultural committees were proceeding along these lines, a private organization, the Women's National Land Service Corps, was formed "with the object of speeding up the recruitment of all classes of women for work on the land, in order to insure the maintenance of the home-grown food supply." This body approached the problem from a different angle. If absolutely untrained women were placed on farms without any preparation, they would almost infallibly make a failure, no matter how good their will; and this failure would still further prejudice the employer against women workers. Therefore, this organization, while not neglecting propaganda, devoted much energy to providing a course of training for intending farm workers, and to sifting out applicants who were physically unfit, or who showed a lack of adaptability for the kind of work and discipline farm life requires. Also, after a woman had received her training, the organization took care that she should be placed with a suitable employer, saw that her accommodations were adequate, even if rough, and kept in touch with her by correspondence or visits until the first loneliness of her new position had worn off and she had fitted into place. The corps was organized in February, 1916. By the end of September it reports having placed some 2,000 women, either as permanent workers or as untrained workers in gangs.²

Throughout the year 1916 the Government maintained and extended its efforts to secure munition workers. In February the ministry of munitions issued a report giving an account of the training provided for educated and intelligent men and women who were willing to take up munition work, and who by means of this training could "quickly be trained to certain limited but nevertheless skilled operations." Special emphasis was laid on the opportunities this training offered for women, and on the desire of the ministry to increase the number of women thus preparing themselves for something better than the unskilled work on which they had at first been

¹ "A representative of the Board of Trade at a meeting at Scarborough said that the wages would be from 12s. (\$2.92) to £1 (\$4.87). Twelve shillings is not a proper living wage for a woman; and our masters seem to know this. The Daily News, in explaining the Government scheme, says: 'It is frankly admitted that much of the most necessary work is hard and unpleasant and by no means extravagantly paid. That is why the appeal is made exclusively to the patriotism of the women. There is no question (as in the army itself) of any really adequate reward.' Well, why not? The farmers are doing very well. The price of corn is higher than has ever been known before. Why should women be deprived of 'any really adequate reward?' * * * If there were 'no question, as in the army itself,' of any really adequate profits then there might be something to be said for the Government. As it is, no armlets and no 'patriotism' ought to make women work at less than a living wage."—The Woman Worker, London, March, 1916, p. 4.

² See Interim Report of the Women's National Land Service Corps, London, pp. 14, 15.

employed. In October the ministry published an appeal for women to take training at the centers established by arrangement with the educational authorities in various parts of the Kingdom. "It is especially desired to train persons who are not at present employed in any form of directly productive work." Courses were given leading up to skilled work, and the centers were sufficiently numerous and well distributed to be easily available to those wishing to use them.¹

In industry generally the process of relaxing trade-union restrictions which interfered with the employment of women went on at an accelerating rate. During the year agreements permitting their employment in processes formerly closed to them were signed by unions in the following industries: Gold, silver, and electro plating, oil seed and cake manufacturing, woolen and worsted, hosiery, dyeing and finishing in the hosiery trade, textile bleaching, dyeing and printing, elastic web and braid, lace, wholesale clothing, boots and shoes, gloves, clay tobacco pipes, printing trades, brushes, cutlery, tobacco, and leather. In a number of other directions the bars were let down and positions theretofore reserved for men thrown open to women. In May, at a conference on openings for educated women, opportunities were reported in actuarial work, aircraft work, wireless telegraphy, as dental mechanics, in optics, journalism, chemistry, and work in military hospitals.² There was an increasing demand for nurses, and for trained women to act as health visitors, and to aid in the campaign for the preservation of infant life. Women were employed on the railways and in the postal service. They were taken on as cooks in camps and in military hospitals in place of men; they were accepted as clerks in the army pay corps, between 700 and 800 men being thus released for service elsewhere; they were employed as mail censors; they found places for the first time on the staff of Scotland Yard; and the War Office depots for sick horses were placed entirely in their hands. To a limited extent they were even beginning to be officially employed as policemen. As volunteer constables they had been doing good work since the beginning of the war, but it had taken two years to convince the local authorities that there was merit in the scheme.

By the end of 1916, then, women were found in every branch of munition work, and in most forms of manual work. They had entered innumerable occupations theretofore closed to them, for many of which they were supposed to be unfitted, but in which they were making good. The number filling clerical and commercial positions had increased enormously, and so had the numbers engaged in trans-

¹ Outline of courses published in *Women's Employment*, London, Oct. 20, 1916, p. 6.

² *Women's Employment*, London, June 2, 1916, p. 12.

portation and in the less responsible positions in the Government service. They were even making their way, although slowly, into the better paid positions, especially in the lines of scientific work, and in manufacturing processes, like acetylene welding and optical work, requiring skill and ability.

DEVELOPMENTS OF 1917.

The year 1917 was characterized by a greater attempt to coordinate the various methods of securing women for industrial and commercial work, by greater efforts to obtain women for semiskilled, skilled, and professional positions, by their increased employment in agriculture, and by their definite enlistment for army services of every kind except the actual fighting and digging.

Early in the year a Women's Division of National Service was formed and placed under the direction of a woman. The general plan was that all women should be encouraged to look upon themselves as volunteers in the national service. As a need for them arose in any industry or locality, appeals would be issued, stating wages and conditions of work, subsistence allowance if the work were at a distance from the worker's home, and asking details as to the worker's qualifications. All willing to serve would fill out certain forms, and with these data before her the director could assign those apparently best fitted for the work to the place where they could apply themselves most effectively for the general good. A similar scheme had been designed a little earlier for men, and the two divisions were expected to work in close cooperation. It is difficult to get details of the work of this division. Its two best known fields of operation were in connection with the Women's Army Auxiliary Corps and the Women's Land Army.

At the end of February, 1917, the War Department issued a call for women to enroll for army service at home and in France. Volunteers were needed for clerical work, cooking and domestic work, motor transport service, storehouse work, telephone and postal service, and miscellaneous services. Wages were to range from 20 shillings (\$4.87) a week upward, with deductions for board and lodging. The recruiting for this corps was placed under the charge of the Women's Division of National Service, and the response to its appeal was prompt. By April 4 women to the number of 35,000 had registered as volunteers.¹ At that time 5,500 were needed abroad, and these were being sent over as quickly as accommodations could be prepared for them. Later, as the scheme proved workable, the demand for volunteers increased rapidly. In the early autumn it was announced that 10,000 women were needed before the end of October, and "It is anticipated that after that they will be needed

¹ Questions in Parliament, quoted by Women's Trade-Union Review, London, July, 1917, p. 23.

at the rate of about 10,000 a month."¹ The discipline and general management of the corps were in the hands of women known as administrators. None of the women was called an officer, and there was no saluting, but the administrators had authority similar to that of commissioned officers. Courts of summary jurisdiction were instituted to take the place of the courts-martial of the men's army.

The Women's Land Army was a less spectacular but a no less useful development. At the beginning of the year when it was decided to conscript many of the skilled men heretofore considered indispensable, it had become plain that agriculture would suffer severely just at the time when there was special need for an increased production of foodstuffs.

Early in January the National Land Council appealed for 20,000 women to undertake farm work.² The response was not satisfactory, and in March the Women's Division of National Service issued an appeal for a land army of women. This brought in volunteers, but as comparatively few were trained in farm work it was necessary to start centers in which they could receive intensive training in some branch of agriculture, after which they were either placed on farms or formed into groups which, camping, so to speak, in the midst of a farming district, went out daily to work where their services were most needed. No information is available as to how many were thus trained. In July it was stated in Parliament that 5,243 women, national service volunteers,³ had been placed either on farms or in instruction centers, and it was added that many others "had gone in on their own." A sufficient number seem to have been obtained to carry on the work in a fairly satisfactory manner.

Along other lines the tendencies shown in 1916 continued and were strengthened. The conscription of men heretofore considered indispensable opened up new positions to women. Especially was there need of women in medicine, in nursing, and in pharmacy work. There was a scarcity of trained nurses, and a committee of the Army Council, considering ways and means of meeting it, urged an improvement in the wages and treatment accorded nurses by way of making the service more attractive. In clerical work apparently few positions were now closed to women. In manufacturing they were still in many cases restricted by trade-union opposition, yet practically there were abundant openings for all who were in any way skilled. There was no shortage of woman labor, but there was a distinct shortage of skilled women.

The three years of the war, then, had seen a marked change in the industrial position of women. During the first there had been much

¹ Christian Science Monitor, Boston, Oct. 20, 1917.

² Manchester [England] Guardian, Jan. 5, 1917.

³ Local Government Chronicle, London, July 21, 1917.

unemployment, in spite of the admission of women into trades new to them, in which for the most part they did either unskilled or routine work. During the second there was a growing demand for their services, and more responsible and better paid positions were opened to them as the men withdrew. During the third year there was an earnest effort to secure trained women and to utilize effectively the woman power of the country in posts of every kind, ranging from the domestic work which they had always done through all grades of manufacturing and clerical work up to supervisory positions, professional work, and places of official responsibility.

CHANGES IN DISTRIBUTION OF WOMEN WORKERS, 1914-1917.

The question of how numerous women were drawn into gainful pursuits by these changing conditions, what work they took up, and how they are now distributed as compared with their distribution before the war is of importance, but can be only partially answered as yet. Their distribution at the latest period for which official data are available is shown in the following table:

SUMMARY OF POSITION IN REGARD TO EMPLOYMENT OF WOMEN, OCTOBER, 1917.¹

Occupation.	Estimated number of females employed, July, 1914.	Increase in the employment of females since July, 1914.	Number of women directly replacing men.
Industries.....	2,176,000	530,000	490,000
Government establishments.....	2,000	214,000	202,000
Gas, water, and electricity (under local authorities).....	600	4,000	4,000
Agriculture in Great Britain (permanent labor).....	80,000	9,000	33,000
Transport (excluding tramways under local authorities).....	17,000	76,000	78,500
Tramways (under local authorities).....	1,200	17,000	16,000
Finance and banking.....	9,500	58,000	55,000
Commerce.....	496,000	335,000	337,000
Professions.....	67,500	22,000	22,000
Hotels, public houses, cinemas, theaters, etc.....	176,000	24,000	44,500
Civil service, post office.....	60,500	46,500	52,000
Other civil service.....	4,500	60,500	55,000
Other services under local authorities.....	196,200	30,000	24,000
Total.....	3,287,000	1,426,000	1,413,000

¹ From The Labour Gazette, London, February, 1918, p. 48.

This does not tell the whole story, since domestic servants and women in small dressmaking establishments are excluded, as well as women in the military, naval, and Red Cross hospitals. Under the last head there has been an increase in the number of women employed equal to 43,000 full-time workers. On the other hand, it is estimated that some 400,000 women formerly in domestic service or small dressmaking shops have left these for the lines of work shown in the table. Allowing for both these factors, it is believed that there has been an increase, since July, 1914, of about 1,070,000 women employed in occupations outside of their homes.

The largest proportionate increase in the number of women is shown in the Government establishments, but the largest actual increases

are in the combined industries, which have taken in 530,000 women, and commerce, with an increase of 335,000. The increase in agriculture is affected by the season at which these data were taken; in July, 1917, it showed an increase of 23,000 over the number employed three years before. By far the greater part of the increased employment of women, it will be observed, is due to the replacement of men by women. About 700,000 women, it is estimated, were engaged at this time in munitions work and about 650,000 in other industrial Government work.

A question naturally arises as to how far the women substituted for men are really filling the places of the men. The reply varies with the work. In clerical and banking positions apparently women are fully replacing men, except in the relatively few positions requiring long training and experience, which they have not yet had time to acquire. In commercial positions the general opinion seems to be that they are taking the work in a satisfactory manner, although rearrangements and adjustments have been necessary. In industrial occupations where physical strength is required they are of course at a disadvantage; elsewhere their success seems to vary with their experience. In the munitions trades, where they have had perhaps the best chance to show what they can do, they have proved highly satisfactory, but in general their work has not been the same as that of the men whose places they have taken. Operations have been subdivided, and a woman does only one, or at the most, two or three parts of a process, instead of performing the whole complex operation. In this subdivided work the women have attained great efficiency, and they are being advanced to other work requiring skill, accuracy, and judgment, but they are not yet all-round mechanics. Whether they can become such, only time can show; but they have at least proved that they have inherent ability to handle skillfully tools and machinery.

PROTECTIVE CLOTHING FOR WOMEN AND GIRL WORKERS IN GREAT BRITAIN.

The entrance of a large number of women and girls into industry in Great Britain since the outbreak of the War has introduced new problems affecting factory and workshop equipment and management which had not previously concerned employers whose working forces had been made up of men and boys almost exclusively. One of the most important questions presented by the new conditions, and one that necessarily must be given serious consideration if the highest speed and efficiency are to be obtained in manufacturing material incident to the war, is the matter of serviceable and suitable clothing so designed as not only to protect women and girls from the grime and

dirt of work, but more particularly to furnish a covering that shall render them less liable to accident from moving machinery or injury to health, and on the whole minimize the dangers of factory and workshop operations.

As a guide to employers and workers the British Home Office has recently issued an illustrated pamphlet of 15 pages¹ describing the different types of protective clothing recommended, and specifying in respect to each process in which there is special need for such clothing, the nature of the risk to be guarded against together with suggestions as to the particular type of clothing to be worn to protect against such risk. The recommendations are based upon information supplied by factory inspectors whose official visits have shown them that in the great majority of cases the need for protective clothing arises from one or other of the following causes: (1) Dusty or dirty processes; (2) working about machinery, climbing ladders, etc.; (3) use of acids or caustic liquids; (4) wet processes; (5) excessive heat; (6) exposure to weather. In presenting the recommendations it is explained that the statement does not include processes in trades certified as dangerous under the factory act where protective clothing is already required by regulations, but it includes the chief manufacturing processes in which, though not brought under regulations, protective clothing has been found to be required for safeguarding workers against accident or injury to health, or for securing comfort and convenience in their work, or for protecting their ordinary clothing against damage caused by materials, machinery, etc.

Two general types of dress are described—(1) The overall suit, and (2) the trouser or knicker suit with tunic—as being suitable wherever the work is dusty or dirty or where women are employed on or near machinery not of a specially dangerous character. Where there is exposure to acids or alkalis, excessive wet, machinery involving special risk, excessive heat, or where the employment is in the open air, special types have been designed and are recommended. All these types of clothing are illustrated in the report, but reproduction here is impracticable and resort must be had to the following descriptions which are quite adequate and furnish an excellent idea of the Home Office recommendations.

Type A.—Overall dress and cap; also apron in some cases. No outside pockets; sleeves to fasten closely at wrists.

Type B.—Trouser or knicker suit with close-fitting coat or tunic, and leggings. No outside pockets.

Type C.—Overall dress or trouser suit of woolen material (baize, etc.); cap; leather apron (with bib); and high-topped waterproof boots, or leather or flannel leggings, or

¹ Great Britain. Home Office. Protective clothing for women and girl workers employed in factories and workshops. Prepared by the Home Office from information supplied by H. M. inspectors of factories. London, 1917. 15 pp. Illustrated. Price, 3d. net.

puttees covering the open tops and lace holes of clogs or boots. Gloves, in some cases, of rubber. Goggles where there is risk of splashing.

Type D.—Overall dress or trouser suit; cap; apron (with bib) of waterproof material such as rubber, oilskin, mackintosh, pegamoid, or leather; and high-topped waterproof boots, or leggings or puttees covering the open tops and lace holes of boots, or clogs.

Type E.—Boiler suits; cap. No outside pockets; sleeves to fasten closely at wrists.

Type F.—Thin overall dress or trouser suit; cap. The material may be cotton, drill, or jean, etc., or linen, of thickness according to need.

Type G.—Weatherproof coat or trouser suit and clogs; waterproof cap ("sou'wester").

In Part II, which sets forth the processes, the nature of risks to be encountered, and the type of clothing recommended, the latter is designated by letter to correspond with the descriptions noted above, and in some cases additional suggestions are made as to supplementary clothing that may be worn as an added protection against the risk. For example, under metal processes, in molding and core making, where the risk is from particles of metal or scale, the clothing recommended is "A, with leather gloves and clogs. Goggles in some cases." Other instances, selected at random, indicate the completeness of the tabulation of processes, the risk involved, and the type of clothing recommended in each case:

MANUFACTURING PROCESSES, NATURE OF RISK, AND TYPE OF CLOTHING RECOMMENDED TO BE WORN BY WOMEN AND GIRLS IN FACTORIES AND WORKSHOPS IN GREAT BRITAIN.

Process.	Nature of risk.	Type of clothing recommended.
Airplane works: Doping.....	Varnish.....	A, with apron.
Brick works.....	Exposure to weather.....	G.
Chemical process: Chlorate.....	Burns.....	A or B, fireproofed material, washed daily.
Engine house.....	Danger from machinery...	E.
Food production: Milk drying.....	Heat.....	F.
Metal process: Acetylene welding....	Burns.....	Drill overall dress, leather or asbestos cloth apron, tinted glass goggles, and gauntlets.
Metal process: Galvanizing.....	Acid.....	C.
Metal process: Grinding and turning	Wet and metal particles...	D. with goggles in some cases.
Sand blasting: Inside chamber.....	Dust and grit.....	B or E, with helmet and breathing tube.
Textile and allied processes: Chrome dyeing.	Wet and chrome ulceration.	D, with rubber gloves where hands are immersed in chrome solutions.

EMPLOYMENT OF WOMEN IN FOUNDRIES IN GERMANY.

The *Technik und Wirtschaft* (December issue) quotes an article from *Stahl und Eisen*, Düsseldorf (No. 35, 1917), on the results obtained in Germany from the employment of women in war industries and especially in foundries, which may be summarized as follows:

In introducing women into workshops the choice of a proper teaching staff is of the greatest importance. The method generally adopted of handing over newcomers to an old worker, or to a woman, brings about the desired results very slowly, and only after many failures. Also, it has often proved a bad practice to have the training of women undertaken by the foreman of a shop, as sometimes

one of the pupils is neglected, or the foreman does not possess the necessary teaching capacity, and instead of explaining matters to the newly employed women in a clear and simple manner, he renders his explanations unintelligible by using technical terms.

On the contrary, very good results have been obtained by the writer of the article with women as teachers. These were chosen from among the women who had been in the works since the beginning of the war, and had attained the rank of forewomen. It can easily be understood that even women who have only been employed in a factory for a relatively brief period are able to impart their knowledge and experiences in a clearer and more practical manner to other women than a foreman who has been brought up in his employment, and who looks upon many things as a matter of course, which are not at all comprehensible to beginners. There is no doubt also that, with the help of a female training staff, women who have never been employed in workshops are made familiar with factory work much more easily.

Experiments have been made by a large engine-building concern in southern Germany in training as forewomen women of the middle class who had never before worked in factories. This was done because it was assumed that this type of woman would do her duty more conscientiously and with more authority than a forewoman taken from among the working classes. In workshops manufacturing bulk articles, where very little training is required, women of the middle classes, when employed as forewomen, have proved a success. The output of the women is only in exceptional cases equal to that of the men; as a general rule the average is two-thirds or three-fourths of a man's production. The use of special clothing for women, such as vests, trousers, and caps, had a very favorable influence on the increase in production. By wearing male attire women are able to undertake work of a kind which they had hitherto been prevented from doing, and as a result of this it has been possible to reduce the number of male employees. Another consequence of this special attire for women is that they are better able to resist changes of temperature (which exist in foundries), and are thus less liable to catch colds. Vests, trousers, and caps also give better protection against dust, and above all are a safeguard against accidents.

Women can be employed in all sorts of capacities in foundries—on heavy as well as light work. The only tasks they can not undertake are working without supervision on larger hand castings and attending to the furnaces. Hand and machine moldings can be done by women, and they are specially clever at making core moldings. It has even been noticed that women produce twice as many

shell castings as men could do in the same time. The manufacturing of larger core moldings can also be undertaken with good results by women, especially those which are turned out of clay, and of which a pattern is given, as this is a kind of work requiring very little physical strength, and the method of reproducing such molds is always much the same. Women are also able to make large and complicated sand cores. The manual dexterity which many of them already possess is invaluable for this kind of work, and they have a fine sense of touch. The output of unbaked cores made by machinery is larger in the case of women than in that of men 17 or 18 years of age.

The employment of women in sections is to be recommended, for the output is increased by the constant rivalry between such sections, and at the same time the training is simplified, and it is easier to decide which women are not fit for the work and to reject them.

Women have been employed for cleaning castings with emery wheels or sand-blast apparatus, but it has been rather difficult to find women who were really fitted for this work. Only very few are able to stand the vibrations when working on emery wheels, or the noise and dust when working the sand-blast apparatus.

In the pattern shop women are only fit for subordinate work, such as carrying, cleaning, and painting patterns. In the latter occupations they work very satisfactorily, especially in the case of wooden patterns of the larger sizes. Women can also be employed for driving cranes. The writer gives examples where women have performed duties requiring a certain technical skill, such as driving the power-hammer in a forging shop, attending to the electric switch-board, as engineers and firemen on locomotives, and attending to the automatic feed of boilers.

Regarding the question of wages it is rather difficult to adopt the principle used in machinery shops, namely, paying women for piece-work two-thirds of a man's wages. Work changes constantly in foundries, and a casting which is made to-day by a man may be made to-morrow by a woman. To avoid difficulties which most likely would arise if one and the same kind of work was paid for on a different scale, it has been thought better to pay women at the same rate as men. One danger will always remain—that women will endeavor to get employment in the machine shops, a kind of work which they undoubtedly prefer, when higher wages are not offered them in foundries.

To keep women in foundries it is absolutely necessary to provide welfare arrangements, such as rest rooms and facilities for baths. Whenever possible arrangements must be made to allow women to attend to their household duties, as well as their work. For instance,

women who have a large number of children ought to be allowed to take home from the canteen or factory kitchen the necessary meals for their families, and to work without rest periods on Saturdays, so as to cease work earlier and be able to perform their household duties.

All the above statements with respect to the results obtained by employing women in foundries are absolutely confirmed by those as to the employment of women in machine shops given in the monthly magazine (May, 1917) of the technical board of the German Engineers' Association of the district of Berlin. From this it appears that women are not only able to turn out bulk articles with the help of special machines, but that they are also able to work on ordinary machines, such as turning lathes, and this for the production even of parts of the most accurate dimensions. They are able also to work at the vise. Prof. Schlesinger states, for instance, that women learn filing after a brief period of practice, and that, where the subdivision of the operations in bulk manufacture is skillfully carried out, there is screw vise work which they can perform to-day for which six months ago the most highly skilled filers or mechanics were considered necessary. Women have even succeeded in undertaking work which previously was reserved for specially intelligent men.

AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYEES.

TRADE AGREEMENTS IN THE WOMEN'S CLOTHING INDUSTRIES OF BOSTON.¹

BY BORIS EMMET, PH. D.

The increase in the strategic power of the women's garment workers' labor organizations is attested by the gradual disappearance from the trade agreements of the preferential union shop and its replacement by the stricter form of recognition known as the union shop. The new mode of union recognition is, for all practical purposes, the equivalent of what is known as the closed shop.²

The initial development, some years ago, of collective bargaining in the garment trades resulted in the appearance of a then rather novel form of trade-union recognition which became known as the preferential union shop.³ Under its provisions members of the garment-workers' union were to be accorded preference in employment and lay-off. In this respect the preferential union shop differs radically from the open shop, under which no preference of any sort is accorded, as well as from the closed shop, which ordinarily specifies that none but union applicants, furnished upon request by the union, are to be employed. The peculiar character of the preferential system is further revealed by its provisions dealing with the employment of nonunion workers. These provisions permit the employment of nonunion workers, provided their skill is greater than that of union applicants for similar positions. When hired, nonunion workers are not to be discriminated against in matters of hours and pay. The preferential principle, however, makes it imperative that nonunion workers be hired last and laid off first. This fact constitutes a great disadvantage to the nonunion worker for the reason that the strong seasonal character of the garment trades necessitates very frequent lay-offs and subsequent new hirings.

The preferential union shop was invented and first applied in the garment trades and is characteristic of the modes of collective bar-

¹ Similar accounts dealing with the workings of trade agreements in the women's clothing industries of New York City, Philadelphia, Chicago, Cincinnati, and St. Louis were published, respectively, in the December, 1917, and January, February, and March, 1918, issues of the MONTHLY REVIEW.

² The union shop is a form of recognition under which only members of the union in good standing are to be employed as long as the union is in a position to furnish all the needed help. In the absence of union workers nonunion applicants may be hired, provided such applicants are willing to join the union immediately.

³ Detailed descriptions of the nature of the preferential union shop are given on p. 215, Bul. 98, and pages 36 and 37, Bul. 145, of this bureau.

gaining into which it was incorporated. With a very few minor exceptions, none of the great international unions affiliated with the American Federation of Labor ever favored this form of union recognition.

Two reasons may be said to have accounted for the absence of the closed shop, or, rather the presence of the preferential union system, in the early collective agreements of the garment trades. Briefly, these causes were: (a) The racial composition and foreign character of the workers, and (b) the weakness of the then existing garment workers' organization. The second cause, although more important than the first, was the logical result of the first.

The majority of the garment workers, which, up to 1915, consisted of newly arrived immigrants with radical and socialistic leanings, has not, until recently, exhibited any great liking for the closed shop which, if strictly applied, would have prevented many of their newly arriving relatives and compatriots from securing employment in the needle trades. In any endeavor to arrive at the causes of the emergence of the preferential union shop, the fact that the old-time garment workers were strong socialists, but weak trade-unionists, must not be forgotten. The final formulation of the essentials of the preferential union shop was due, however, in a far greater measure, to the influence of outside arbitrators who endeavored to adjust the difficulties which arose, by "splitting the difference" between complete union recognition as represented by the closed shop and no recognition at all as practiced under open-shop policies. The fact that an outside influence determined, to a great extent, the mode of recognition accorded to the union may be said to have demonstrated a lack of power on the part of the organized workers.

Until very recently, the International Ladies' Garment Workers' Union did not possess the strength and vigor of most of the other great international labor organizations of the country. The cause responsible for this lack of "punching" power of the garment workers' union was its inability to control the labor supply of the trade because of the constant inflow of new immigrants, each of whom was a potential competitor for a needle-trade position. This cause was, to a very great extent, removed when the great tide of foreign immigration was for a while interrupted, and then materially diminished, by the War. The relatively greater scarcity of labor which ensued brought with it a possibility of effective organization of garment-trade labor. The new situation was immediately taken advantage of by the International Ladies' Garment Workers' Union, which abandoned the preferential principle for the stricter mode of recognition provided by the union shop. The new demand was, in the great majority of instances, granted by the employers. We thus find

the union shop taking the place of the preferential system in many of the women's garment-trade centers of the country, notably in some of the trades of New York City and in all similar trades of Philadelphia, Chicago, Cincinnati, St. Louis, and Boston.

The recent development of the collective-bargaining schemes in existence in the women's garment industries of Boston furnishes an interesting illustration of this tendency toward stricter union recognition. With a very few unimportant exceptions, all the garment-trade agreements in operation at the present time in Boston have abandoned the preferential system for the union shop.

CLOAK AND SUIT INDUSTRY.

A general strike called in the cloak and suit industry of Boston, in the early part of 1913, resulted in the formation of an association of employers, the principal purpose of which was to devise ways and means to meet the demands of their organized employees. While the strike was in progress, a committee of the newly formed Boston Ladies' Garment Manufacturers' Association was sent to New York City to investigate and report upon the workings of the so-called Protocol of Peace—a trade agreement which had been operating in the cloak and suit industry of New York City since September 2, 1910. The committee was favorably impressed with the results of the New York agreement and recommended the trying out of a similar agreement in the Boston industry. In accordance with this recommendation, a trade agreement, for an indefinite period, was signed on March 8, 1913, between the Boston Ladies' Garment Manufacturers' Association and the International Ladies' Garment Workers' Union, the latter representing Cloak and Suit Operators' Union No. 56, Pressers' No. 12, and Cutters' No. 73.

The agreement of March 8 accorded preference in employment and lay-off to members of the union and abridged materially the traditional right of the employer to discharge his help. It contained also provisions for : (1) Abolition of home work, subcontracting, and "team work" or inside contracting; (2) minimum weekly rates of wages;¹ (3) equal distribution of work; (4) employees' price committee for collective piece-rate making; (5) a 50-hour week; (6) prohibition of overtime work on Saturdays; (7) payment to week workers of time and one-half for overtime work; (8) a board of grievances based upon the principle of conciliation; (9) a board of arbitration; (10) a joint board of sanitary control for the formulation and enforcement of sanitary standards.²

¹ The wage rates specified are shown in footnote table on page 229.

² The organization of this board and its powers and functions were to be similar to those of the joint board of sanitary control of the cloak, suit, and skirt industry of New York City, as described on p. 254, Bul. 98, of this bureau. The Boston board, however, was never formed.

An account of the workings of this agreement during the first year of its existence was published by the Bureau of Labor Statistics on April 10, 1914.¹ It was then stated that the agreement worked satisfactorily, that the adjustment agencies functioned properly, and, furthermore, that the existence of the agreement contributed greatly to the formation of a better understanding between employer and employee.

The agreement of March 8, 1913, was revised on August 31, 1915. The revision resulted in the following modifications of the original agreement: (1) Greater freedom of employer to discharge for poor workmanship and misbehavior; (2) provision that all decisions of the adjustment agencies be carried out in 14 days; (3) greater freedom of employer in the assignment of work within the shop; (4) two sets of increases in wage rates, one effective immediately and the other on August 1, 1916;² (5) provision for an investigation of the trade for the purpose of establishing minimum hourly rates for pieceworkers; (6) restriction of overtime to eight hours per week; (7) the payment to week workers for Labor Day; (8) organization of a board of three presided over by an impartial chairman, for the purpose of enforcing the provisions of the agreement and to recommend changes and improvements; (9) provision that disputes upon which the board of grievances, as originally constituted on March 8, 1913, could not agree, were to be submitted to arbitration; (10) regulation of apprenticeships in the cutting and pressing branches of the trade.³

An analysis of the principal innovations which were brought about by the revision throws considerable light on the difficulties which were encountered as the result of the original agreement. In brief, these difficulties were as follows: (1) The right of the employer to discharge was so limited that it actually prevented him from ridding himself of incompetents and objectionables; (2) the inability of the

¹ Bul. 145, pp. 141-146.

² The wage rates specified are shown in footnote table on page 229.

³ The agreement permitted employers to hire apprentices for the cutting and pressing departments in the ratio of one for every five full-fledged cutters or pressers employed. The length of the apprenticeship periods in each of the trades was to be three years. Apprentices were to receive the following minimum weekly rates of pay:

Wage rates of apprentices.

Period.	Minimum weekly rates of—	
	Cutting.	Pressing.
First six months.....	\$8	\$9
Second six months.....	11	12
Third six months.....	14	15
Fourth six months.....	17	18
Fifth six months.....	21	20
Sixth six months.....	24	22

parties to force the members to carry out quickly decisions made by the adjustment agencies; (3) the inability of employer to select the most skilled employees for jobs requiring expert knowledge, due to the provision of the agreement for equal distribution of work among all employees; (4) the absence of a permanent and impartial body to formulate standards and study their results; (5) frequent failures on the part of the board of grievances to agree upon the adjustment of complaints.

The agreement, as revised and supplemented on August 31, 1915, worked satisfactorily for a short time. By the end of the year, however, shop strikes became so frequent that the employers began to complain that the benefit of strikeless shops—one of the aims of the agreement—became nonexistent. To prove this contention representatives of the manufacturers' association produced evidence which showed that during the past year not less than 19 strikes, lasting each from half a day to as long a period as 10 days, took place. Incidentally, the employers charged the union with opposition to the introduction of labor-saving machinery and with interference in the management of the shops.

In answer to these charges officials of the union stated that they did not interfere with the management of the shops, but "merely assumed the right to instruct workers not to make work on a different system than that which prevailed formerly," unless mutually agreed to. As regards the complaint of opposition to labor-saving machinery the union suggested that the installing of such machinery "be restricted so that the workers may be able to find employment," to which effect "steam-pressing machines should be restricted to one machine to each 10 pressers, with a further proviso that in dull seasons all steam machine pressing shall be dispensed with until all hand pressers are fully employed."

No compromises were reached as a result of the joint conferences at which the mentioned difficulties were discussed. The controversy dragged on during the remainder of the year 1916 without any statement from either of the sides as to the irreducible minimum of conditions which it would consider as acceptable.

On January 9, 1917, the president of the International Ladies' Garment Workers' Union addressed to the Boston Ladies' Garment Manufacturers' Association a letter containing an enumeration of standards which would be acceptable to the union. The letter specified the following: (1) A 48-hour week; (2) double pay for overtime; (3) restriction of overtime to eight hours per week, and permissible only during the busy seasons; (4) payment to week workers for six legal holidays; (5) an increase of \$1 per week on February 1, 1917, to

all week workers; (6) organization of a board of price adjusters for the settlement of piece-rate disputes; (7) a minimum hourly rate of 75 cents for operators and piece tailors and 50 cents for finishers; (8) a strict union shop; (9) submission to arbitration of all disputes upon the adjustment of which the parties are unable to agree; (10) pending the adjustment of such disputes within a limit of 24 hours no strikes or lockouts to take place; (11) the agreement to be in force for one year.

The enumerated union demands were met on January 16, 1917, by counterproposals from the employers' association. Briefly, these proposals were as follows: (1) Readiness to grant a 48-hour week, provided all other competitive markets introduced a similar week; (2) 10 hours of overtime as against the eight hours desired by the union; (3) time and one-half for overtime work instead of double time; (4) no pay for legal holidays; (5) no increases in weekly rates; (6) acceptance of the suggested price-adjustment scheme; (7) granting of the requested minimum hourly rates for operators or piece tailors and finishers; (8) rejection of the union shop, and retention of the preferential union shop.

These counterproposals were not satisfactory to the union. In a letter dated February 20, 1917, and addressed to the officers of the Boston Ladies' Garment Manufacturers' Association, the president of the International Ladies' Garment Workers' Union declared that the counterproposals of the employers were unacceptable, and suggested the assembling of another joint conference. This suggestion, however, came too late, for on February 28, 1917, the Boston Ladies' Garment Manufacturers' Association was disbanded.

No relaxation of standards took place during the year 1916 while the above controversies and conferences were in progress. As a matter of fact, the interests of the workers were in no way injured by the absence of a formal settlement. The European War with its curtailment of immigration has greatly strengthened the position of the union and enabled it actually to introduce standards of work and pay equivalent to, and in a number of establishments even better than, those formally specified by their international officers.

Since February 28, 1917, no written trade agreements have been in operation in the cloak and suit industry of Boston. The trade, however, is completely unionized, each of the establishments having an understanding with the union to maintain the following standards: (1) Strict union shop; (2) a 49-hour week; (3) eight hours of overtime per week, permissible only during the busy seasons; (4) time and one-half for overtime; (5) minimum weekly and hourly rates of

wages;¹ (6) the presence in each establishment of a shop chairman and price committee, the first to represent the employees in their dealings with the employer, the second to participate in collective piece-rate making; (7) one legal holiday with pay to week workers; (8) equal distribution of work; (9) peaceful adjustment of grievances by the parties themselves, and when unable to agree, by an arbitrator.

No provision regulating apprenticeships is in force at the present time, for the reason, stated by the union, that none of the employers in the cloak and suit industry of Boston employ at the present time five full-fledged cutters or pressers.

Interviews with employers reveal the fact that the existing oral trade agreements work satisfactorily, that the present union leadership is so businesslike and efficient that chances for the revival of the Garment Manufacturers' Association are small. Satisfaction with the present status of collective bargaining is also expressed by the leaders of the workers, who point with pride to the fact that since the disbanding of the manufacturers' association only one strike of significance has taken place in the trade. As a rule, all arising grievances are quickly and peacefully adjusted. The union records show that in the course of the year 1917, 239 disputes were adjusted peacefully and quickly, without any recourse to the assistance of arbitrators. The adjusted disputes specified the following grievances: Discharges, 76; miscellaneous, 65; unequal division of work, 35; sending work to outside shops, 24; payment under scale, 23; piece-rate disagreements, 16.

Oral trade agreements of the character outlined above govern at the present time the relations of employer and employee in every

¹ The following table gives the rates of wages in the cloak and suit industry, since Mar. 8, 1913:

Minimum rates of wages in the cloak and suit industry of Boston since 1913.

Occupation.	Minimum rates in effect on—			
	Mar. 8, 1913.	Aug. 31, 1915.	Aug. 1, 1916.	Feb. 28, 1917.
Week workers, per week:				
Cutters, cloaks and suits.....	\$24.00	\$25.50	\$27.00	\$31.00
Cutters, skirts.....	24.00	25.00	25.00	27.00
Cutters, trimmings.....	18.00	20.00	21.00	27.00
Pressers, upper, coats.....	24.00	25.50	27.00	31.00
Pressers, under, coats.....	19.00	20.50	22.00	25.00
Pressers, upper, skirts.....	22.00	23.00	24.00	27.00
Pressers, under, skirts.....	17.00	19.00	20.00	23.00
Sample makers, coats.....	24.00	25.00	25.00	27.00
Sample makers, skirts.....	22.00	23.00	23.00	25.00
Button sewers.....	(a)	(a)	(a)	14.00
Pieceworkers, per hour:				
Operators, cloaks.....	(a)	(a)	(a)	.90
Operators, skirts.....	(a)	(a)	(a)	.75
Cloak finishers.....	(a)	(a)	(a)	.65

a None.

known cloak and suit establishment of the city of Boston, 68 in number, with a total of about 1,500 employees.

DRESS AND WAIST INDUSTRY.

The circumstances under which the first important trade agreement came about in the dress and waist industry of Boston were strikingly similar to those which preceded the signing of a similar agreement in the cloak and suit industry, as already described.

A strike was called in the dress and waist industry in the early part of 1913, for the purpose of compelling union recognition and collective bargaining. To counteract the activities of their employees, the dress and waist employers immediately organized themselves into the Boston Dress and Waist Manufacturers' Association. The principal aim of the new association, as announced in the public press, was to combat what the employers considered to be unjust and unreasonable demands. Shortly thereafter, however, through the efforts of the same public-spirited citizens who aided in the settlement of the cloak and suit strike, a conference of the opposing parties took place. This conference finally resulted in the signing of an agreement on March 15, 1913.

The parties to this agreement were the Boston Dress and Waist Manufacturers' Association and the International Ladies' Garment Workers' Union, the latter representing its subordinate locals, Nos. 56, 12, 73, and 49. In general, the agreement signed was similar to the one in the cloak and suit industry of Boston signed one week before. It contained the following: (1) A provision not to discharge workers for union activity; (2) prohibition of home work, subcontracting, and "team work" or inside contracting; (3) minimum weekly rates of wages for cutters and pressers, and a general minimum weekly rate for all beginners;¹ (4) equal distribution of work; (5) organization of piece-rate committees of employees for collective rate making; (6) presence in each establishment of a shop chairman to represent the employees in their dealings with the firm; (7) a 50-hour week; (8) limitation of overtime to not more than six hours per week for cutters and pressers, and to not more than four hours per week for all other workers; (9) the payment of time and one-half for overtime work to week workers; (10) preferential union shop; (11) a joint board of sanitary control with a constitution, powers, and functions identical to those of a similar organization in operation in the dress and waist industry of New York under the so-called Protocol of Peace of January 18, 1913;² (12) boards of arbitration and of

¹ The wage rates specified are shown in footnote table on page 232.

² The nature and functions of the joint board of sanitary control in operation in the dress and waist industry of New York City were described in detail on pp. 109-111, Bul. 145, of this bureau. The Boston board, however, was never organized.

grievances with constitutions and functions analogous to those of the boards of arbitration and grievances under the Boston cloak and suit agreement of March 8, 1913; (13) prohibition of strikes and lockouts.

In spite of the favorable auspices under which it was launched, the above-outlined agreement never achieved any great degree of success in the elimination of strikes from the industry. An impotent organization on the part of the employers, powerless to force some of its members to live up to the agreement, and a very inefficient and unbusinesslike union leadership, unable to control the actions of the rank and file, may be said to have accounted for the lack of success of the agreement.

The nature of some of the other shortcomings of this agreement may be easily judged from the changes made in it, when, as a result of joint conferences, it was modified on February 9, 1916. The revision introduced the following changes in conditions: (1) A 50-hour week during the months of December to May, inclusive, and a 49-hour week during the remainder of the year;¹ (2) limitation of overtime to four hours per week for women and eight hours for men; (3) establishment of minimum weekly wage rates for the majority of the occupations in the trade;² (4) appointment of price adjusters for the settling of piece-rate disputes; (5) establishment of a so-called joint board of control of three, presided over by an impartial person, an organization similar to the joint board of sanitary control, referred to above, but with an extended jurisdiction which was to include wage matters; (7) substitution of the strict union shop for the preferential union shop; (8) appointment of an impartial chairman to adjust complaints upon the disposition of which the parties concerned could not agree.

The changes and modifications made on February 9, 1916, resulted in bringing about law and order in the industry and in developing better relations between the employers and employees.

One year later, in February, 1917, the union presented new demands to the manufacturers' association. These demands, like the counterproposals of the employers, were referred for final adjudication to the chairman of the board of control of the industry, acting as arbitrator. The decisions made by this arbitrator were accepted by both sides and resulted in a further modification of the original agreement as already revised on February 9, 1916.

The union demands, the counterdemands of the employers which they evoked, and the final adjustments made by the arbitrator, are interesting and instructive because they throw light on the char-

¹ A 49-hour week was granted to the employees in June, 1917. Beginning with May 1, 1918, the weekly hours of labor, in accordance with a decision of the arbitrator, will be reduced to 48.

² The wage rates specified are shown in footnote table on page 232.

acter of the difficulties which arose. The union demands were three in number. The first had for its object the granting of permission to union officials to visit the shops to ascertain if the provisions of the agreement relating to union recognition were observed. This demand was refused by the arbitrator. The second demand aimed at a further limitation of overtime work. The wishes of the union in this respect were partially agreed to. The third request, which demanded certain wage increases, was also partially granted by the arbitrator.¹ The counterdemands of the employers specified: (1) The granting of permission to discharge help without review—denied by the arbitrator; (2) the putting of their finishing departments on a piecework basis—granted on the condition that the piece rates to be put into effect should be agreed upon in advance by the chief clerks of the union and the association; (3) requirement that pieceworkers register the time of their arrival and departure—conceded by the arbitrator; (4) the right to employ cutting apprentices in the ratio of one to each two or more of full-fledged cutters employed. The decision of the arbitrator allowed one apprentice cutter for every three full-fledged mechanics employed.

The most recent changes in the trade agreement governing the dress and waist industry of Boston came about as a result of new union demands presented in the early part of 1918. These related principally to increases in wage rates and were, to a great extent, granted.²

¹ The wage rates specified are shown in footnote table below.

² The following table shows the rates of wages in operation in the Boston dress and waist industry since March 15, 1913:

Minimum rates of wages in the dress and waist industry of Boston since 1913.

Occupation.	Minimum rates in effect on—			
	Mar. 15, 1913.	Feb. 9, 1916.	Mar. 21, 1917.	Feb. 9, 1918.
Week workers, per week:				
Cutters.....	\$24.00	\$25.00	\$25.00	\$28.00
Pressers.....	20.00	22.00	22.00	24.50
Sample makers, skirts.....	None.	22.00	22.00	24.50
Sample makers, dresses.....	None.	12.00	14.00	16.00
Under pressers.....	\$16.00	18.00	18.00	20.50
Operators, dresses.....	None.	12.00	13.20	15.00
Operators, waists.....	None.	12.00	14.00	16.00
Drapers.....	None.	12.00	13.20	15.00
Trimming and pinning.....	None.	10.00	11.00	12.50
Trimming.....	None.	9.00	10.00	11.50
Ironing.....	None.	9.00	11.00	12.50
Buttonhole making.....	None.	9.00	10.00	11.50
Finishing.....	None.	7.00	8.75	10.00
Examining.....	None.	7.00	8.75	10.00
All learners.....	\$6.00	6.00	6.00	6.00
Pieceworkers, per hour:				
Operators.....	None.	.33	.33	.38

In addition to the trade agreement with the Dress and Waist Manufacturers' Association of Boston, which has a membership of 22 firms who employ about 1,500 workers, the Waist Makers' Union of Boston has at the present time 16 establishment trade agreements with as many firms, employing a total of about 300. The terms of these agreements are very similar to those of the existing agreement with the Dress and Waist Manufacturers' Association.

PETTICOAT INDUSTRY.

In the city of Boston are located about half a score of establishments which specialize in the manufacture of petticoats. This industry, more than any other of the allied needle trades, utilizes a high subdivision of labor in its manufacturing processes, a fact which enables petticoat employers to employ exclusively unskilled help.

None of the petticoat workers were organized prior to 1917. The absence of collective action on the part of the employees was responsible, it is said, for the unsatisfactory labor conditions and low wages then in existence. Recently, however, the local Dress and Waist Makers' Union succeeded in organizing a considerable part of the petticoat trade. As a result, trade agreements were entered into by the union and three of the largest petticoat firms, employing a total of about 200 workers. The terms of these agreements are very similar to those of the agreements in operation in the dress and waist industry of the city, with the exception of wage rates, which are lower because of the unskilled labor employed in the petticoat shops. The application of collective bargaining methods resulted nevertheless in a 15 per cent increase in the earning capacity of the petticoat workers.

WATERPROOF GARMENT INDUSTRY.

Two distinct groups of employers exist in the waterproof garment industry of Boston. One of these embraces principally small employers who still cling to antiquated manufacturing methods, use little machinery and no subdivision of labor. Such employers depend wholly upon the services of skilled raincoat makers. This portion of the industry confines its activity to the making of raincoats. It includes about 30 small firms with a total employed of about 500. The other group contains large firms employing more modern production methods—an extensive use of machinery and elaborate systems of subdivision of labor. Employers of this group have succeeded almost altogether in doing without the services of skilled workers.

The extent of unionism in the industry appears to vary with the manufacturing methods. The more modern and larger shops having, as a rule, dispensed with the services of skilled raincoat makers,

employ almost exclusively unskilled female workers. No collective bargaining of any kind or unionism is to be found in such establishments. The manufacturing methods of the smaller shops make production contingent upon the services of skilled raincoat makers, such as old-line cutters, stitchers, and cementers. These workers are all organized and all establishments which employ them operate under trade agreements with the union.

The skilled waterproof garment workers of Boston are organized as Local No. 7 of the International Ladies' Garment Workers' Union. This local has at the present time 27 trade agreements with as many firms, having a total employed of about 500. All of these agreements run for one year and provide for the following: (1) A preferential union shop for establishments manufacturing civilian garments, and a strict union shop for those manufacturing military garments; (2) a 48-hour week; (3) equal division of work; (4) minimum weekly and piece wage rates; (5) peaceful adjustment of grievances with a proviso that complaints upon the disposition of which no agreement can be reached, are to be submitted to arbitration.

JOINT COUNCILS OF EMPLOYERS AND EMPLOYEES ADOPTED BY POTTERY INDUSTRY IN GREAT BRITAIN.

The pottery industry of Great Britain is the first industry to give effect to the recommendations of the Whitley report¹ for the establishment of joint standing industrial councils, composed of representatives of employers and employees. The following description of the first meeting of the pottery council on January 11, 1917, is taken from the Manchester (England) Guardian of January 12. There is added to this description a statement of the objects of the council, as given in The Labor Gazette for February, 1918.

POTTERY TRADE FIRST IN FIELD.

The pottery trade is the first to appoint a joint standing industrial council on the lines of the report of the Whitley committee to the reconstruction committee, and at its first meeting, which was held in Stoke to-day, this council had the advantage of the presence of the Minister of Reconstruction (Dr. Addison) and the Minister of Labor (Mr. G. H. Roberts).

In appealing for the formation of such councils in every industry, the Government held out the inducement that they would be regarded as "the official standing consultative committees to the Government on all future questions affecting the industries they represent," and as "the normal channel through which the opinion and experience of an industry will be sought." Mr. Roberts has added the promise that by their means it will be possible also to allow a larger degree of self-government in industry than exists at present; and in his address to the council yesterday Dr. Addison showed in detail how very useful they will be in assisting the Government in vitally important problems of reconstruction after the war, such as the introduction

¹ This report is published in Bulletin 237 of the Bureau of Labor Statistics.

of improved methods of manufacture, the rationing of raw materials wherever there is a shortage, and the giving of priority of consideration to those things which will be needed first.

WHITLEY SUGGESTIONS ADOPTED.

The Whitley committee refrained from drawing up a cut-and-dried scheme for general application to all industries, but made a number of suggestions, and, substantially, these have been incorporated in the objects set out by the new national council of the pottery industry. They include the bringing of all manufacturers and operatives into their respective associations, the "regular" consideration of earnings and the establishment and maintenance of equitable conditions throughout the industry, the maintenance of selling prices that will afford reasonable remuneration to employers and employed, the settlement of all kinds of disputes, the removal of all dangers to health from the industry; the study of processes, encouragement of research, and the full utilization of their results; the utilization, under adequate safeguards, of inventions and improvements designed by workpeople, education in all branches of the industry, the publication of reports on problems of the industry, and, generally, "the advancement of the pottery industry and of all connected with it by the association in its government of all engaged in the industry."

Dr. Addison expressed some disappointment yesterday at the slowness of other trades in forming industrial councils. But it was probable, he said, that the pottery council would still be in process of formation had not employers and workpeople begun to move in the matter months before the Whitley committee made its report.

Maj. Frank H. Wedgwood, who presided at the meeting, gave as two reasons for this the great concentration of the industry in the Stoke district and the fact that in the pottery trade nearly all the factories are on a small scale, with the result that employers and workers are brought into closer personal contact with one another. All sections of the industry in the United Kingdom are included, excepting the coarser makes of stoneware, such as flooring and roofing tiles. The number of employers is given as between 400 and 500, and the number of workers as about 50,000.

CONSTITUTION OF THE COUNCIL.

The council consists of 30 representatives of employers and an equal number of operatives. Under the constitution the employers' representatives may include "salaried managers," and those of the operatives "some women." One-third are to retire annually, but may be reappointed. The council may appoint an independent chairman, but yesterday it elected Maj. Wedgwood, managing director of the well known firm of Josiah Wedgwood, and appointed Mr. S. Clowes, one of the operatives' organizers, vice chairman. In time district committees and works committees will probably be appointed, but on all such bodies the representation of manufacturers and workers is to be equal. On the same principle the secretarial duties are divided between Mr. Arthur P. Llewellyn, of Tunstall, and Mr. Arthur Hollins, of Hanley.

It is noteworthy that, at a meeting at which there were as many employers present as operatives, general acclamation was given to such remarks by Dr. Addison as that every employer should be in an employers' association and every workman in a trade union; that labor must be assured of a fair proportion of the reward arising out of the introduction of improved methods of manufacture; and that there must be no "unholy alliance between capital and labor at the expense of the consumer."

OBJECTS OF THE COUNCIL.

The advancement of the pottery industry and of all connected with it by the association in its government of all engaged in the industry.

¹ The Labour Gazette, London, February, 1918, p. 49.

It will be open to the council to take any action that falls within the scope of its general object. Its chief work will, however, fall under the following heads:

(a) The consideration of means whereby all manufacturers and operatives shall be brought within their respective associations.

(b) Regular consideration of wages, piecework prices, and conditions, with a view to establishing and maintaining equitable conditions throughout the industry.

(c) To assist the respective associations in the maintenance of such selling prices as will afford a reasonable remuneration to both employers and employed.

(d) The consideration and settlement of all disputes between different parties in the industry which it may not have been possible to settle by the existing machinery, and the establishment of machinery for dealing with disputes where adequate machinery does not exist.

(e) The regularization of production and employment as a means of insuring to the workpeople the greatest possible security of earnings.

(f) Improvement in conditions with a view to removing all danger to health in the industry.

(g) The study of processes, the encouragement of research, and the full utilization of their results.

(h) The provision of facilities for the full consideration and utilization of inventions and improvements designed by workpeople and for the adequate safeguarding of the rights of the designers of such improvements.

(i) Education in all its branches for the industry.

(j) The collection of full statistics on wages, making and selling prices, and average percentages of profits on turnover, and on materials, markets, costs, etc., and the study and promotion of scientific and practical systems of costing to this end.

All statistics shall, where necessary, be verified by chartered accountants, who shall make a statutory declaration as to secrecy prior to any investigation, and no particulars of individual firms or operatives shall be disclosed to any one.

(k) Inquiries into problems of the industry, and where desirable, the publication of reports.

(l) Representation of the needs and opinions of the industry to Government authorities, central and local, and to the community generally.

EMPLOYMENT AND UNEMPLOYMENT.

WORK OF PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES AND OF PROVINCIAL EMPLOYMENT OFFICES IN CANADA.

Data are presented in the following table showing the operations of the public employment offices for the month of February, 1918, and in cases where figures are available, for the corresponding month in 1917. Figures are given from 151 public employment offices in 38 States and the District of Columbia, Federal employment offices in 26 States and the District of Columbia, Federal-State employment offices in six States, a Federal-State-county-municipal employment office in one State, a Federal-municipal employment office in one State, State employment offices in 16 States, a State-county-municipal employment office in one State, State-municipal employment offices in three States, municipal employment offices in six States, and a municipal-private employment office in one State. Figures from two Canadian employment offices are also given.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918.

UNITED STATES.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employ- ers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regi- strations.		Renewals.					
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
<i>Alabama.</i>												
Mobile (Federal).....	(1)	8	(1)	234	2 15	2 181	(1)	(1)	(1)	117	(1)	67
<i>Arkansas.</i>												
Little Rock (State)....	.....	87	.....	1,776	.....	21,108	.....	(1)	.....	835	.....	822
<i>California.</i>												
Fresno (State).....		442		774		529		(1)		769		649
Los Angeles (State- municipal).....	2,255	3,127	3,590	4,277	1,950	2,659	(1)	(1)	3,462	4,147	2,874	3,402
Oakland (State).....	581	1,012	697	1,516	419	870	285	(1)	687	1,513	521	1,155
Sacramento (State)....	214	236	471	647	302	422	137	(1)	392	619	347	519
San Francisco (Fed- eral) ³	385	455	496	640	2 760	2 752	(1)	(1)	487	475	323	303
San Francisco (State)..	1,106	1,627	2,121	2,994	1,718	22,831	636	(1)	2,045	3,290	1,259	2,159
Total.....									7,073	10,813	5,324	8,187
<i>Colorado.</i>												
Colorado Springs (State)	383	397	383	397	2 519	2 439	(1)	(1)	519	389	343	389
Denver (Federal).....	17	23	17	180	2 102	2 750	(1)	(1)	35	230	15	115
Denver No. 1 (State)...	50	283	50	283	2 150	21,249	(1)	(1)	150	214	82	214
Denver No. 2 (State)...	36	367	74	367	2 160	2 290	(1)	(1)	160	197	74	197
Pueblo (State).....	189	370	189	370	2 261	2 402	(1)	(1)	261	347	184	347
Total.....									1,125	1,377	698	1,262

¹Not reported. ²Number applying for work. ³Figures for 1918 represent women's division only.

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OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918—Contd.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
<i>Connecticut.</i>												
Bridgeport (State).....	554	(1)	(1)	540	(1)	2 639	(1)	(1)	(1)	(1)	493	438
Hartford (State).....	636	(1)	(1)	616	(1)	2 769	(1)	(1)	(1)	(1)	470	555
New Haven (State).....	711	(1)	(1)	614	(1)	2 722	(1)	(1)	(1)	(1)	598	542
Norwich (State).....	192	(1)	(1)	210	(1)	2 246	(1)	(1)	(1)	(1)	180	198
Waterbury (State).....	154	(1)	(1)	79	(1)	2 149	(1)	(1)	(1)	(1)	123	59
Total									(1)	(1)	1,864	1,792
<i>Delaware.</i>												
Wilmington (Federal)...	19	3	(1)	1,500	2 154	2 1,410	(1)	(1)	174	1,346	148	1,290
<i>District of Columbia.</i>												
Washington (Federal)...		285		1,818		2 1,679		(1)		2,682		2,398
<i>Florida.</i>												
Jacksonville (Federal)...	1	8	1	904	2 11	2 620	(1)	(1)	1	499	1	474
Miami (Federal).....	1	3	2	4	2 34	2 29	(1)	(1)	2	5	2	1
Tampa (Federal).....		1		300		2 213		(1)		200		200
Total									3	704	3	675
<i>Georgia.</i>												
Atlanta (Federal-State)		74		1,405		2 470		(1)		331		300
Savannah (Federal)...	2	7	6	250	2 17	2 125	(1)	(1)	4	25	4	12
Total									4	356	4	312
<i>Idaho.</i>												
Moscow (Federal).....	3	20	3	200	2 16	2 63	(1)	(1)	3	51	3	51
<i>Illinois.</i>												
Chicago (Federal).....	522	1,422	2,977	6,735	2 2,557	2 7,283	(1)	(1)	2,392	7,260	2,136	5,853
Chicago (State).....	3,448	2,700	11,644	7,652	11,158	5,367	1,018	3,992	11,993	8,515	9,048	6,666
East St. Louis (State)...	466	625	871	1,025	348	302	457	482	788	789	725	769
Peoria (State).....	592	660	733	944	118	149	574	690	655	833	650	827
Rock Island-Moline (State).....	289	761	552	2,523	288	876	224	946	366	1,759	80	1,680
Rockford (State).....	419	452	693	951	418	670	193	227	512	665	455	615
Springfield (State).....	250	404	311	529	153	261	187	475	282	498	262	399
Total									16,988	20,319	13,356	16,899
<i>Indiana.</i>												
Evansville (State).....	202	157	238	221	117	(1)	19	(1)	296	221	238	221
Fort Wayne (State).....	331	402	547	632	161	(1)	306	(1)	517	606	467	606
Indianapolis (Federal)...	190	105	355	607	2 620	2 770	(1)	(1)	351	524	278	442
Indianapolis (State).....	704	635	704	569	705	603	30	32	672	635	643	546
South Bend (State).....	125	126	713	215	379	200	30	109	350	250	282	176
Terre Haute (State).....	150	91	273	360	2 283	273	(1)	68	283	336	263	336
Total									2,469	2,572	2,171	2,327
<i>Iowa.</i>												
Des Moines (Federal-State).....	70	48	123	111	97	94	19	10	103	90	25	37
<i>Kansas.</i>												
Topeka (State).....	95	210	110	231	130	189	5	3	101	176	90	162

1 Not reported.

2 Number applying for work.

3 State office prior to October, 1917.

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OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918—Contd.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employ-ers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	New regis-trations.	Renewals.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
<i>Kentucky.</i>												
Louisville (State).....	110	111	110	98	1 219	1 148	(2)	(2)	110	98	110	98
Louisville (municipal-private).....		255	333	451	430	274	698	357	358	370	141	198
Total.....									468	468	251	296
<i>Louisiana.</i>												
New Orleans (Federal-State).....	61	77	120	683	1 320	1 326	(2)	(2)	315	829	(2)	550
<i>Maine.</i>												
Portland (Federal).....		2		4		1 50		(2)		50		50
<i>Maryland.</i>												
Baltimore (Federal)....	106	304	629	4, 508	1 319	1 7,582	(2)	(2)	174	3, 712	174	1, 254
<i>Massachusetts.</i>												
Boston (Federal).....	5	224	157	3, 864	1 48	1 4,930	(2)	(2)	5	2, 889	5	1, 462
Boston (State).....	1, 434	1, 199	1, 673	1, 428	849	1, 086	(2)	(2)	2, 541	2, 405	1, 134	1, 039
Springfield (State).....	661	459	930	627	267	202	(2)	(2)	973	724	681	509
Worcester (State).....	745	700	930	881	431	1 541	(2)	(2)	1, 145	1, 152	619	514
Total.....									4, 664	7, 170	2, 439	3, 524
<i>Michigan.</i>												
Battle Creek (State)....	30	80	96	332	1 70	1 332	(2)	(2)	63	332	63	332
Bay City (State).....	33	18	110	90	1 128	137	(2)	(2)	28	79	108	76
Detroit (Federal).....	92	77	373	894	1 323	1, 542	(2)	(2)	323	914	323	873
Detroit (State).....	297	1, 817	540	3, 221	1 538	3, 044	(2)	(2)	177	514	3, 221	514
Flint (State).....	380	230	380	645	(2)	620	(2)	(2)	111	380	616	380
Grand Rapids (State)....	309	291	3, 083	801	1 3,007	884	(2)	(2)	146	3, 007	826	3, 007
Jackson (State).....	328	242	516	351	1 540	279	(2)	(2)	138	512	351	506
Kalamazoo (State).....	200	160	268	266	1 300	540	(2)	(2)	46	267	264	267
Lansing (State).....	37	187	85	881	1 73	846	(2)	(2)	127	56	881	56
Muskegon (State).....	52	18	119	345	1 132	162	(2)	(2)	16	117	126	100
Saginaw (State).....	94	84	469	380	1 480	619	(2)	(2)	86	450	380	450
Total.....									5, 768	8, 019	5, 742	7, 738
<i>Minnesota.</i>												
Duluth (State).....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	604	639
Minneapolis (Federal)...	29	39	35	197	1 28	1 457	(2)	(2)	11	145	11	113
Minneapolis (State).....	(2)	945	(2)	1, 301	(2)	1, 219	(2)	(2)	(2)	1, 167	1, 126	926
St. Paul (State).....	(2)	(2)	(2)	364	(2)	(2)	(2)	(2)	(2)	361	627	361
Total.....									11	1, 673	2, 368	2, 039
<i>Mississippi.</i>												
Gulfport (Federal).....	(2)	3	(2)	190	1 68	1 144	(2)	(2)	(2)	103	(2)	91
<i>Missouri.</i>												
Kansas City (Federal-State)....	484	835	923	2, 212	1 807	1 2,721	(2)	(2)	834	1, 967	674	1, 785
St. Joseph (State).....	(2)	993	798	1, 479	1 734	1 816	(2)	(2)	(2)	816	727	814
St. Louis (Federal-State).....	296	246	831	1, 553	435	1 1,148	(2)	(2)	634	1, 134	617	1, 104
Total.....									1, 468	3, 917	2, 018	3, 703

* Number applying for work.

* Not reported.

* Number of offers of positions.

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OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918—Contd.

UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
<i>Montana.</i>												
Butte (municipal).....	(1)	(1)	330	444	2 520	2 504	(1)	(1)	(1)	(1)	268	371
<i>Nebraska.</i>												
Lincoln (Federal-State)		117		135		2 129		(1)		129		114
Omaha (Federal-State-county-municipal)....	466	672	663	1,230	2 786	645	(1)	252	721	897	579	836
Total.....									721	1,026	579	950
<i>New Jersey.</i>												
Jersey City (Federal-State).....	41	72	608	838	2 611	2 836	(1)	(1)	487	396	431	331
Newark (Federal-State)	1,004	2,971	3,443	8,935	2 2,443	9,806	(1)	(1)	2,123	7,347	2,060	5,733
Orange (Federal-State).....	179	472	473	805	2 319	2 790	(1)	(1)	246	481	195	268
Total.....									2,856	8,224	2,686	6,332
<i>New York.</i>												
Albany (State).....	407	493	501	807	415	681	326	306	645	922	368	544
Buffalo (Federal).....	798	949	1,779	1,886	2 2,010	1,232	(1)	(1)	1,571	1,428	1,131	934
Buffalo (State).....	815	946	1,795	1,786	1,284	846	165	186	1,571	1,428	1,131	934
New York City (Federal) ³	2,392		5,706	5,707	2 5,758	7,780	(1)	(1)	4,377	2,410	2,731	3,344
New York City (State).....	(1)	2,183	(1)	3,031	()	1,725	(1)	1,043	(1)	3,039	(1)	1,624
New York City (municipal).....	2,374	1,966	2,737	2,065	2,186	1,330	1,958	1,439	3,310	2,304	2,124	1,471
Rochester (State).....	1,078	1,043	1,582	1,576	709	972	363	419	1,397	1,443	793	784
Syracuse (State).....	870	777	1,260	1,187	727	637	260	245	1,172	1,098	766	746
Total.....									14,043	14,072	9,044	10,381
<i>Ohio.</i>												
Akron (State-municipal).....	(1)	(1)	1,860	1,818	735	900	1,682	2,259	1,545	1,563	1,298	1,324
Athens (State-municipal).....		(1)		20		19		38		23		19
Canton (State-municipal).....		(1)		394		309		183		335		246
Chillicothe (State-municipal).....		(1)		296		226		188		262		204
Cincinnati (State-municipal).....	(1)	(1)	1,376	1,943	1,101	1,279	2,703	3,495	1,403	1,847	976	1,471
Cleveland (Federal).....	50	46	94	1,206	2 79	2 491	(1)	(1)	75	288	21	122
Cleveland (State-municipal).....	(1)	(1)	6,216	4,762	2,307	2,520	6,787	7,998	5,434	4,628	4,315	3,782
Columbus (State-municipal).....	(1)	(1)	1,787	2,391	569	861	2,032	3,222	1,677	2,385	1,419	1,908
Dayton (State-municipal).....	(1)	(1)	840	2,161	498	1,933	1,011	1,738	729	2,066	616	1,811
Hamilton (State-municipal).....		(1)		261		128		100		205		147
Lima (State-municipal).....		(1)		278		341		409		278		242
Mansfield (State-municipal).....		(1)		1,084		580		523		1,004		998
Marietta (State-municipal).....		(1)		147		134		86		163		120
Marion (State-municipal).....		(1)		301		229		235		275		226
Portsmouth (State-municipal).....		(1)		494		325		210		485		379

¹ Not reported.² Number applying for work.³ 1917 inclusive of activities in cooperation with State employment office.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918—Contd.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employ- ers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	New regis- trations.		Renewals.		Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
Sandusky (State-municipal).....		(1)		227		169		86		189		119
Springfield (State-municipal).....		(1)		301		718		432		293		200
Steubenville (State-municipal).....		(1)		472		249		266		404		300
Tiffin (State-municipal).....		(1)		236		281		176		190		147
Toledo (State-municipal).....	(1)	(1)	1,730	2,157	908	1,324	2,179	4,094	1,619	2,163	1,380	1,782
Washington C. H. State-municipal).....		(1)		53		55		26		63		36
Youngstown (State-municipal).....	(1)	(1)	1,106	1,444	669	882	787	1,291	1,115	1,410	997	1,334
Zanesville (State-municipal).....		(1)		158		170		123		141		105
Total.....									13,597	20,660	11,022	17,022
<i>Oklahoma.</i>												
Enid (State).....	(1)	100	96	184	2 123	2 154	(1)	(1)	90	109	85	99
Muskogee (State).....	(1)	307	282	392	2 249	2 423	(1)	(1)	242	422	218	278
Oklahoma City (State).....	(1)	280	446	543	2 450	2 580	(1)	(1)	429	519	368	458
Tulsa (State).....	(1)	512	874	847	2 808	2 796	(1)	(1)	805	684	806	604
Total.....									1,566	1,734	1,477	1,439
<i>Oregon.</i>												
Portland (Federal).....	693	1,484	896	3,305	2 1,075	2 3,971	(1)	(1)	766	3,112	728	2,787
Portland (municipal).....	510	1,160	768	2,981	259	70	(1)	(1)	(1)	(1)	665	2,787
Total.....									766	3,112	1,393	5,574
<i>Pennsylvania.</i>												
Altoona (State).....	(1)	130	229	561	35	2 426	33	(1)	54	401	50	378
Erle (State).....		54		313		356		90		296		265
Harrisburg (State).....	(1)	289	375	1,804	207	238	95	138	268	359	223	332
Johnstown (State).....	(1)	39	177	208	74	97	25	8	78	75	64	74
New Castle (State).....		29		97		77		2		70		70
New Kensington (State).....		64		287		2 279		(1)		180		180
Philadelphia (Federal).....	192	209	602	5,555	2 890	2 5,393	(1)	(1)	794	4,875	739	4,796
Philadelphia (State).....	(1)	989	1,173	7,658	726	6,765	610	238	1,132	6,212	953	6,129
Pittsburgh (Federal).....	39	57	1,439	1,434	2 700	2 862	(1)	(1)	429	520	350	497
Pittsburgh (State).....	(1)	384	606	2,822	536	1,368	214	83	459	1,116	499	1,038
Scranton (State).....		3		11		26		1		24		24
Williamsport (State).....		51		435		95		4		93		74
York (State).....		189		1,002		206		1		113		87
Total.....									3,214	14,334	2,878	13,944
<i>Rhode Island.</i>												
Providence (Federal) ..		10		519		21,358		(1)		335		312
Providence (State).....	134	96	145	143	84	407	2114	20	(1)	143	145	143
Total.....									(1)	478	145	455
<i>South Carolina.</i>												
Charleston (Federal)...	2	10	2	491	2 35	2 160	(1)	(1)	21	122	21	122
<i>Tennessee.</i>												
Memphis (Federal).....	17	19	30	3,093	2 27	2 2,151	(1)	(1)	17	2,044	(1)	2,021

¹ Not reported.² Number applying for work.

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OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY, 1917 AND 1918—Concl'd.

UNITED STATES—Concluded.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employ- ers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registra- tions.		Renewals.					
	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.	Feb., 1917.	Feb., 1918.
<i>Texas.</i>												
Dallas (municipal).....	198	213	299	317	¹ 298	² 428	18	¹⁶	383	346	286	313
El Paso (Federal).....	(²)	28	(³)	34	⁴ 2	⁴ 46	(²)	(²)	(²)	20	(³)	13
Galveston (Federal).....	5	30	6	150	⁴ 16	⁴ 296	(²)	(²)	13	55	13	30
Houston (Federal).....	(²)	(²)	(³)	(²)	⁴ 41	⁴ 14	(²)	(²)	(²)	(³)	(²)	(²)
Houston (municipal)....	(²)	(²)	(³)	(²)	450	723	176	243	(²)	(²)	563	857
Total.....									396	421	862	1,213
<i>Virginia.</i>												
Norfolk (Federal).....	18	78	277	2,796	⁴ 99	⁴ 332	(²)	(²)	85	157	26	77
Richmond (municipal)...	241	164	389	215	⁴ 406	⁴ 434	(²)	(²)	465	333	213	145
Total.....									550	490	239	222
<i>Washington.</i>												
Aberdeen (Federal)....	7	5	44	26	⁴ 202	⁴ 38	(²)	(²)	47	26	44	26
Bellingham (Federal-municipal).....	123	110	303	189	⁴ 298	200	(²)	38	299	175	275	150
Everett (municipal).....	(²)	284	(²)	(²)	(²)	(²)	(²)	(²)	(²)	72	242	252
North Yakima (Federal).....	244	278	243	604	⁴ 608	⁴ 827	(²)	(²)	343	539	308	511
Seattle (Federal).....	104	383	151	8,103	⁴ 1,328	⁴ 6,550	(²)	(²)	125	5,139	108	4,671
Seattle (municipal).....	2,173	4,211	3,296	7,660	(²)	(²)	(²)	(²)	3,362	7,782	2,957	7,120
Spokane (Federal).....	81	67	127	137	⁴ 374	⁴ 272	(²)	(²)	110	120	105	114
Spokane (municipal)....	760	850	1,780	1,272	75	25	10		1,650	1,247	1,640	1,212
Tacoma (Federal-municipal).....	299	523	840	1,380	⁴ 1,054	⁴ 4,001	(²)	(²)	816	1,212	801	1,180
Walla Walla (Federal)...	75	410	95	450	⁴ 516	⁴ 375	(²)	(²)	95	169	78	157
Total.....									6,847	16,481	6,558	15,393
<i>Wisconsin.</i>												
La Crosse (State-municipal).....	84	135	136	75	⁴ 199	⁴ 118	(²)	(²)	100	98	64	106
Milwaukee (State-county-municipal).....	1,322	2,429	2,102	1,139	⁴ 1,957	⁴ 2,553	(²)	(²)	1,977	2,462	1,536	1,903
Oshkosh (State-municipal).....	86	170	136	92	⁴ 157	(²)	(²)	(²)	93	105	51	70
Superior (State-municipal).....	209	501	465	185	⁴ 379	⁴ 538	(²)	(²)	416	541	392	287
Total.....									2,586	3,206	2,043	2,366
<i>Wyoming.</i>												
Cheyenne (Federal)....		3		5		⁴ 61		(²)		32		15
Grand total.....									88,091	153,815	75,893	133,256

CANADA.

<i>Quebec.</i>												
Montreal (provincial)...	209	111	423	231	307	⁴ 272	(²)	(²)	354	218	311	187
Quebec (provincial).....	(²)	14	49	59	⁴ 101	⁴ 64	(²)	(²)	(²)	44	36	40
Total.....									354	262	347	227

¹ Including 180 transients.² Including 368 transients.³ Not reported.⁴ Number applying for work.

WORK OF THE EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM
IN 1917.

The most important development of the employment exchanges during the year 1917 has been the establishment of local advisory committees. In general, there is one committee for each exchange, but in large towns in which there is more than one exchange, and in other special cases, several exchanges are grouped under one committee. Of the proposed 250 committees for the United Kingdom, some 230 have now been constituted, and 150 have held their first meetings. Each committee consists of an equal number of representatives of employers and employed, nominated, as a rule, by associations in the various localities, together with a small number of additional members (not exceeding one-third of the total membership) nominated by the Ministry of Labor as representing other interests.

The functions of the committees include the consideration of any matters arising in connection with the working of the exchanges, and are not confined to matters referred to them by the department. It is hoped by this means to bring the employment exchanges into the closest touch with employers and workpeople in the various localities, and to secure for them the fullest assistance from local knowledge and experience. An important part of their work will be in connection with the provision of substitutes for the men needed for the army and of employment for men discharged from His Majesty's forces, and the special problems arising in connection with the employment of women. Subcommittees may be appointed to deal with these and other subjects. Ultimately these committees will form an essential part of the national machinery for the resettlement of labor on demobilization.

GENERAL SUMMARY.

The activities of the employment exchanges were maintained at a high level during 1917, and the results of their work, whether measured by registrations, vacancies notified or vacancies filled, fall little short of the figures for 1916, the highest previously recorded. The number of registrations during the year amounted to 3,575,380, relating to 2,837,650 separate individuals, while the number of vacancies notified was 1,999,442, of which 1,555,223 were filled by 1,375,198 separate individuals. As in the previous year the principal feature of the work of the exchanges was the supply of labor to munition industries and other war work, rather more than half of the workers being women and girls.

The number of registrations, of individuals registered and placed, and of vacancies notified and filled on the general register during

1917 are compared with those of the previous three years in the following table:¹

Department and year.	Number of registrations.	Number of individuals registered.	Number of vacancies notified.	Number of vacancies filled.	Number of individuals found work.
Men:					
1914.....	2,316,042	1,381,694	909,383	706,458	507,538
1915.....	1,512,335	1,072,213	1,004,970	716,816	577,206
1916.....	1,229,171	954,172	909,721	636,095	539,564
1917.....	1,167,864	938,725	906,627	623,830	539,396
Women:					
1914.....	707,071	476,926	312,344	232,935	160,145
1915.....	1,232,891	920,638	493,515	385,101	306,192
1916.....	1,921,826	1,501,260	846,196	695,631	615,920
1917.....	1,873,706	1,487,728	814,735	706,034	636,269
Boys:					
1914.....	211,898	157,093	157,278	103,280	85,068
1915.....	194,864	150,559	161,459	106,716	90,237
1916.....	241,314	184,443	148,091	116,900	100,053
1917.....	265,668	204,283	146,103	120,525	105,547
Girls:					
1914.....	207,441	148,310	100,019	74,236	61,320
1915.....	246,047	183,393	137,702	99,504	84,701
1916.....	266,378	203,909	145,010	108,609	95,869
1917.....	268,142	206,914	131,927	104,834	93,986
Total:					
1914.....	3,442,452	2,164,023	1,479,024	1,116,909	814,071
1915.....	3,186,137	2,326,803	1,797,646	1,308,137	1,058,336
1916.....	3,658,689	2,843,784	2,049,018	1,557,235	1,351,406
1917.....	3,575,380	2,837,650	1,999,442	1,555,223	1,375,198

The total number of registrations (3,575,380) in 1917, including reregistrations of the same individual, and the number of individuals registered (2,837,650), although slightly below those recorded in 1916, was above the average of the period 1914-1916. The influence of the war is shown in the proportion of registrations of men and women, for whereas 64 per cent of the individuals registered in 1914 were men and 22 per cent were women, in 1917 the proportions were 33 per cent men and 52 per cent women. The proportion of boys and girls to the total number of individuals registered showed practically no change as between 1914 and 1917. In addition to those on the general register, there were on the casual register 14,536 individual registrations in 1917 which are not included in the figures above.

The number of vacancies notified to the exchanges in 1917 (1,999,442) was slightly lower than in the previous year, but the number of vacancies filled (1,555,223) was almost equal to the corresponding figure for 1916, and was considerably above the average of the three years 1914-1916. The average daily number of vacancies filled during 1917 was 5,082, but there was considerable fluctuation in the rate during the year. The highest point was reached during the four weeks ending March 9, when the average daily rate was 5,971. From that period there was a gradual decline, which reached its lowest level in August, when the rate had fallen to 4,152; from then there was an upward movement until November, after which the

¹ From The Labour Gazette of the British Ministry of Labor, February, 1918, pp. 53-55.

seasonal decline was shown. Of the vacancies filled during 1917, 40 per cent were filled by men, 45 per cent by women, 8 per cent by boys, and 7 per cent by girls. The corresponding percentages in 1914 were 63, 21, 9, and 7, respectively. The figures given above do not include 106,221 jobs of a more or less casual nature found for dock laborers, while in addition there were 17,296 jobs filled through the clearing-house system for dock laborers at Liverpool.

The number of individuals for whom work was found (1,375,198) was the highest yet recorded. It is satisfactory to note that there has been a steady diminution in this period in the average number of times an individual was found work, the average in 1917 being only 1.13, compared with 1.37 in 1914. Of the individuals found work in 1917 the percentages were 39 for men, 47 for women, 8 for boys, and 7 for girls. In 1914 the corresponding percentages were 62, 20, 10, and 8, respectively.

The number of exchanges open at the beginning of the year was 378; at the end of the year it had increased to 388.

REGISTRATIONS.

Men.—The number of registrations in the case of men shows a slight decline as compared with 1916. This was accounted for by decreases of 62,990 in building and works of construction, and 24,254 among general laborers counterbalanced to a considerable extent by increases in most other trade groups.

Women.—The small decrease in the registrations among women is accounted for chiefly by decreases of 65,510 in domestic trades and 92,654 in ammunition and explosives, partly counterbalanced by an increase of 99,988 in engineering.

The following table shows by groups of industries the number of registrations of men and women, respectively, in 1917, insured trades being distinguished from uninsured trades:

Groups of trades.	Number of registrations.			
	Men.		Women.	
	Registra- tions.	Indi- viduals regis- tered.	Registra- tions.	Indi- viduals regis- tered.
Insured trades:				
Building.....	201,557	147,724	6,216	4,622
Works of construction.....	76,809	63,211	624	474
Sawmilling.....	12,332	10,095	15,370	11,386
Shipbuilding.....	43,573	31,200	5,244	3,805
Engineering.....	264,333	219,853	196,905	147,881
Ammunition, explosives, chemicals, etc.....	52,609	45,620	548,069	452,823
Other insured trades.....	46,073	40,116	55,720	43,093
Uninsured trades:				
Conveyance of men, etc.....	133,472	93,421	49,859	40,009
Commercial and clerical.....	49,030	42,967	119,951	103,362
Domestic.....	22,370	18,104	317,688	221,028
Government, defense, professional, etc.....	19,360	17,326	57,734	48,409
General laborers.....	147,470	120,443	142,552	113,232
Other uninsured trades.....	98,876	88,645	357,774	297,584
Total.....	1,167,864	938,725	1,873,706	1,487,728

VACANCIES FILLED.

Men.—The number of vacancies filled declined from 636,095 in 1916 to 623,830 in 1917, mostly accounted for by a decrease of 18,551 among general laborers.

The following table shows the number of skilled and unskilled vacancies filled by men in the insured trades only in 1917:

Insured trades.	Skilled.	Unskilled.
Building.....	63,954	42,259
Works of construction.....	278	72,659
Sawmilling and cabinet making.....	3,979	2,547
Shipbuilding.....	12,944	14,540
Engineering.....	96,706	79,634
Construction of vehicles.....	2,137	1,823
Manufacture of metals.....	9,695	5,415
Manufacture of electrical apparatus.....	607	75
Miscellaneous metal trades.....	1,979	367
Precious metals, etc.....	500	10
Bricks and cement.....	646	317
Chemicals, etc.....	2,949	9,051
Rubber and waterproof goods.....	1,091	409
Ammunition and explosives.....	7,407	22,365
Leather.....	2,082	197
Total.....	206,954	251,663

It will be seen that the proportion of skilled men was highest in the metal and engineering trades and in the building trades and lowest in works of construction, chemicals, ammunitions and explosives.

Women.—The number of vacancies filled by women increased from 695,631 in 1916 to 706,034 in 1917. As in 1916 the largest number of vacancies filled were in engineering, ammunition, explosives, and chemicals, and domestic service.

The following table shows the number of vacancies filled by men and women, respectively, in 1917 for both insured and uninsured trades:

Groups of trades.	Number of vacancies filled.	
	Men.	Women.
Insured trades:		
Building.....	106,213	4,500
Works of construction.....	72,937	653
Sawmilling.....	5,711	12,788
Shipbuilding.....	27,484	2,232
Engineering.....	176,340	173,991
Ammunition, explosives, chemicals, etc.....	41,772	175,749
Other insured trades.....	28,165	32,485
Uninsured trades:		
Conveyance of men, etc.....	58,071	14,527
Commercial and clerical.....	11,837	32,853
Domestic.....	7,928	130,130
Government, defense, professional, etc.....	6,881	12,231
General laborers.....	41,728	9,252
Other uninsured trades.....	38,763	104,643
Total.....	623,830	706,034

The number of cases in which men and women were placed more than once in 1917 was 154,199, or 11.6 per cent of the vacancies filled, as compared with 13.2 per cent in 1916.

Boys and girls.—There was an increase of 3,625 in the number of vacancies filled by boys and a decrease of 3,775 in the vacancies filled by girls in 1917, as compared with 1916.

Of the vacancies filled by boys 24,800, or 20.6 per cent, were first situations since leaving school. In the case of girls 28,835, or 27.5 per cent, were so filled.

The following table shows the number of vacancies filled by boys and girls, respectively, in 1917, insured and uninsured trades being distinguished:

Groups of trades.	Number of vacancies filled.			
	Boys.		Girls.	
	Vacancies filled.	Individuals placed.	Vacancies filled.	Individuals placed.
Insured trades:				
Building.....	2,312	2,022	197	169
Works of construction.....	279	267	29	29
Sawmilling.....	2,364	1,998	1,720	1,597
Shipbuilding.....	1,774	1,696	98	84
Engineering.....	22,231	19,408	7,139	6,528
Ammunition, explosives, chemicals, etc.....	5,205	4,475	6,952	6,422
Other insured trades.....	4,937	4,483	7,080	6,332
Uninsured trades:				
Conveyance of men, etc.....	23,598	19,668	10,917	9,651
Commercial and clerical.....	8,532	7,976	13,067	12,248
Domestic.....	3,656	3,077	13,067	11,606
Government, defense, professional, etc.....	1,897	1,752	3,413	3,230
General laborers.....	6,238	5,226	4,611	3,867
Other uninsured trades.....	37,502	33,499	35,944	32,223
Total.....	120,525	105,547	104,834	93,986

The proportion of vacancies filled to vacancies notified by employers was 78 per cent (men 69, women 87, boys 83, girls 79) as compared with 76 per cent (men 70, women 82, boys 79, and girls 75) in 1916.

SPECIAL SCHEMES.

In the following paragraphs some brief particulars are given for some of the special schemes for obtaining and placing labor which are being worked by the employment exchanges.

Substitution and reinforcement.—For the purpose of securing and maintaining an adequate supply of labor for work of national importance or for releasing fit men for the Army the following schemes are in existence: (a) War munitions volunteers; (b) war work volunteers; (c) army reserve munitions workers; (d) registered substitutes; and (e) the substitution scheme generally. These schemes are being carried out by the employment exchanges in cooperation with the ministry of munitions or the ministry of national service, and already

many thousands of vacancies have been filled through the agency of the exchanges.

Discharged sailors and soldiers.—Since April, 1915, arrangements have been in operation under which the exchanges are furnished with particulars of men discharged from the forces in order that steps may be taken to assist them in finding suitable employment. Down to December 31, 1917, over 80,000 sailors and soldiers were placed in their first employment since discharge. Further arrangements are being made which will permit of a great extension of this branch of work.

Workmen from the dominions and colonies.—A considerable number of men from the dominions and the colonies have been recruited by the employment exchanges for munitions work in the United Kingdom.

Aliens.—The importation of alien labor for work of national importance has also been carried out by the exchanges, subject to the proviso that aliens should not be introduced where British labor was available and should not be paid wages inferior to or in excess of those normally paid to British workmen.

Women.—Over 18,000 women were enrolled during the period in the Women's Army Auxiliary Corps; over 15,000 women were placed in agriculture as ordinary exchange applicants, while more than 6,000 women were recruited under the National Service Scheme for placing women on the land. This scheme is now revised and includes hay balers for the forage committee of the War Office, and women for timber work under the timber supply department. The national service department figures under the old scheme do not include the enrollments in the two latter departments. In addition to supplying these corps the exchanges have supplied about 4,000 women to the army and navy canteen board as manageresses and workers. The number of women supplied during 1917 to the ammunition, explosives, and chemical trades alone amounted to over 167,000.

ADVANCES TO WORKPEOPLE.

Under the powers exercised by the employment department 150,000 advances in respect of railway fares were made to workpeople during 1917, and the cost of the railway warrants issued amounted to £115,000. Advances to workpeople proceeding to "work of national importance" have been charged since August 17 at the rate of five-eighths of the prewar fare. Of the above £115,000 some £30,000 was in respect of these fares for the last five months of the year, of which £12,500 is repayable.

SEASONAL LABOR.

During the months of June to October the number of vacancies filled through the exchanges for pickers of fruit, hops, etc., was 6,699,

compared with 1,748 in 1916. Holiday workers were also placed to the number of 1,665, compared with 743 in 1916.

As in previous years, arrangements were made with the general post office to recruit temporary labor (sorters, postmen, etc.) required for the Christmas pressure. Applications numbered 39,132, compared with 39,030 in 1916, while the number of vacancies filled was 26,906 (men 5,437, women 10,879, boys 1,502, and girls 88) compared with 29,020 in 1916.

These figures are included in the various tables above.

EMPLOYMENT IN SELECTED INDUSTRIES IN FEBRUARY, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in February, 1918, from representative manufacturing establishments in 13 industries. Comparing the figures for February of this year with those from identical establishments for February, 1917, it appears that in three industries there was an increase in the number of people employed and in 10 a decrease. Men's ready-made clothing showed an increase of 4.5 per cent in this respect, and automobile manufacturing, a decrease of 10.8 per cent.

Ten industries show an increase in the total amount of the pay roll for February, 1918, as compared with February, 1917. Decreases are shown in three industries. The greatest increase shown—22.4 per cent—is in iron and steel and the largest decrease—6 per cent—is in automobile manufacturing.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN FEBRUARY, 1917, AND FEBRUARY, 1918.

Industry.	Estab- lish- ments report- ing for Febru- ary both years.	Period of pay roll.	Number on pay roll in February—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in February—		Per cent of in- crease (+) or de- crease (-).
			1917	1918		1917	1918	
Boots and shoes.....	69	1 week..	66,138	61,092	- 7.6	\$951,523	\$926,128	- 2.7
Cotton manufacturing.....	54	do.....	53,269	49,399	- 7.3	566,569	611,446	+ 7.9
Cotton finishing.....	17	do.....	14,953	14,533	- 2.8	201,966	219,737	+ 8.8
Hosiery and underwear.....	58	do.....	31,330	30,483	- 2.7	318,301	343,085	+ 7.8
Woolen.....	51	do.....	49,633	48,912	- 1.5	664,814	696,387	+ 4.7
Silk.....	36	2 weeks..	15,765	14,651	- 7.1	378,799	358,343	- 5.4
Men's ready-made clothing.	33	1 week..	24,558	25,659	+ 4.5	380,265	434,448	+14.2
Iron and steel.....	95	1 month..	147,576	150,524	+ 2.0	6,167,185	7,546,257	+22.4
Car building and repairing.	23	do.....	32,622	29,573	- 9.3	1,089,816	1,138,108	+ 4.4
Cigar manufacturing.....	62	1 week..	20,570	21,093	+ 2.5	246,867	269,414	+ 9.1
Automobile manufacturing.	48	do.....	134,387	119,882	-10.8	2,840,688	2,668,866	- 6.0
Leather manufacturing.....	35	do.....	19,312	18,684	- 3.3	293,153	312,208	+ 6.5
Paper making.....	50	do.....	27,189	26,473	- 2.6	396,610	437,191	+10.2

The following table shows the number of persons actually working on the last full day of the reported pay period in February, 1917, and February, 1918. The number of establishments reporting on this question is small and this fact should be taken into consideration when studying these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN FEBRUARY, 1917, AND FEBRUARY, 1918.

Industry.	Establishments reporting for February, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in February—		Per cent of increase (+) or decrease (—).
			1917	1918	
Boots and shoes.....	18	1 week....	12,382	11,747	— 5.1
Cotton manufacturing.....	32	do.....	25,156	21,967	—12.7
Cotton finishing.....	11	do.....	9,752	9,813	+ 0.6
Hosiery and underwear.....	18	do.....	11,804	11,572	— 2.0
Woolen.....	38	do.....	32,245	32,661	+ 1.3
Silk.....	22	2 weeks....	11,471	10,433	— 9.1
Men's ready-made clothing.....	4	1 week....	3,296	4,158	+26.2
Iron and steel.....	73	½ month....	113,263	116,068	+ 2.5
Car building and repairing.....	23	do.....	29,031	26,479	— 8.8
Cigar manufacturing.....	16	1 week....	4,328	4,186	— 3.3
Automobile manufacturing.....	25	do.....	78,769	72,114	— 8.9
Leather manufacturing.....	16	do.....	12,923	13,244	+ 2.5
Paper making.....	15	do.....	9,581	10,203	+ 6.5

The figures in the next table show that in five industries there were more persons on the pay roll in February, 1918, than in January, 1918. A 3.5 per cent increase in men's ready-made clothing was the greatest increase and cotton manufacturing shows the largest decrease—4.9 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY, 1918, AND FEBRUARY, 1918.

Industry.	Establishments reporting for January and February.	Period of pay roll.	Number on pay roll in 1918—		Per cent of increase (+) or decrease (—).	Amount of pay roll in 1918—		Per cent of increase (+) or decrease (—).
			January.	February.		January.	February.	
Boots and shoes.....	69	1 week..	60,733	61,272	+0.9	\$947,849	\$928,473	— 2.1
Cotton manufacturing.....	56	do.....	52,937	50,349	—4.9	678,752	620,082	— 8.6
Cotton finishing.....	18	do.....	14,805	14,721	—0.6	228,718	222,404	— 2.8
Hosiery and underwear.....	57	do.....	29,171	29,751	+2.0	330,791	333,883	+ 0.9
Woolen.....	48	do.....	46,259	45,360	—1.9	734,589	643,843	—12.4
Silk.....	35	2 weeks..	14,265	14,573	+2.2	347,678	356,555	+ 2.6
Men's ready-made clothing.....	33	1 week..	24,615	25,482	+3.5	406,301	430,423	+ 5.9
Iron and steel.....	94	½ month..	151,190	151,259	+0.1	7,296,242	7,528,828	+ 3.2
Car building and repairing.....	23	do.....	29,978	29,573	—1.4	1,122,506	1,138,108	+ 1.4
Cigar manufacturing.....	60	1 week..	21,258	21,021	—1.1	265,074	268,457	+ 1.3
Automobile manufacturing.....	44	do.....	113,068	112,475	—0.5	2,426,104	2,507,521	+ 3.4
Leather manufacturing.....	30	do.....	14,541	14,255	—2.0	252,703	239,007	— 5.4
Paper making.....	48	do.....	26,489	25,791	—2.6	423,524	424,911	+ 0.3

Of the 13 industries reporting, 8 show increases and 5 decreases in the total amount of pay roll in February, 1918, as compared with January, 1918. In men's ready-made clothing, automobile manufacturing, and iron and steel, increases of 5.9 per cent, 3.4 per cent, and 3.2 per cent, respectively, are shown.

Woolen and cotton manufacturing show marked decreases—12.4 and 8.6 per cent—which is evidently due to the fact that several plants did not operate full time during the pay-roll period.

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for January and February, 1918. The small number of establishments represented should be noted when using these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JANUARY, 1918, AND FEBRUARY, 1918.

Industry.	Establishments reporting for January and February.	Period of pay roll.	Number actually working on last full day of reported pay period in 1918—		Per cent of increase (+) or decrease (—).
			January.	February.	
Boots and shoes.....	21	1 week....	13,018	13,157	+ 1.1
Cotton manufacturing.....	33	do.....	25,200	22,471	—10.8
Cotton finishing.....	12	do.....	9,631	9,879	+ 2.6
Hosiery and underwear.....	19	do.....	12,169	12,533	+ 3.0
Woolen.....	37	do.....	32,017	32,413	+ 1.2
Silk.....	19	2 weeks....	9,725	9,958	+ 2.4
Men's ready-made clothing.....	4	1 week....	3,905	4,158	+ 6.5
Iron and steel.....	72	$\frac{1}{2}$ month....	113,687	116,969	+ 2.9
Car building and repairing.....	23	do.....	25,659	26,479	+ 3.2
Cigar manufacturing.....	19	1 week....	5,086	5,068	— 0.4
Automobile manufacturing.....	26	do.....	74,781	73,150	— 2.2
Leather manufacturing.....	13	do.....	9,774	9,833	+ 0.6
Paper making.....	14	do.....	9,476	9,702	+ 2.4

In nine of 13 industries there were establishments reporting increases in wage rates during the period January 15 to February 15, 1918, and in four industries no establishments reported a change. A number of firms did not answer the inquiry relating to the wage rate changes, but in such cases it is probably safe to assume that no changes were made.

Automobile manufacturing: Reports from four plants show increases in wage rates. One plant reports an increase of 2 per cent to about 4 per cent of its force and from 10 per cent to 15 per cent to about 6 per cent of its force. One reports an increase of \$0.0308 in the average hourly productive rates; one, an increase of 10 per cent to 10 per cent of its force; and another reports small increases but does not state the extent of the increases.

Boots and shoes: Thirteen plants report increases in wage rates. One plant reports an increase of 10 per cent to 75 per cent of its force;

another, an increase of $12\frac{1}{2}$ per cent to about 20 per cent of its force. One reports increases ranging from 10.2 per cent to 22.1 per cent to about 10 per cent of the employees. Seven plants report a "war increase" of 5 per cent to the entire force excepting the superintendent, manager, and foremen. One plant reports an increase of piecework prices and two plants report increases but make no statement as to the per cent of increase nor the number affected.

Car building: One plant reports an increase of 6 per cent to about 2 per cent of its force.

Men's ready-made clothing: One plant reports an increase of 5 per cent to about 50 per cent of the employees.

Cotton finishing: One plant reports an increase of 5 per cent but gives no further information.

Cotton manufacturing: Six plants report increases in wage rates. One reports an increase of 10 per cent to its entire force. Another reports a 10 per cent increase to 90 per cent of its force; one, an increase of about 19 per cent to loom fixers, with 10 per cent bonus for six full days' work. One other reports a bonus of 10 per cent to all "full-time" workers. One plant reports a bonus of 10 per cent to all operatives working six full days and making \$16.50 or less per week; one reports an increase of 10 per cent but gives no further data.

Hosiery and underwear: Five plants report increases in wage rates. One plant reports an increase of 15 per cent to its entire force. Another reports an increase of 10 per cent to its entire force; while another reports an increase of 11 per cent to about 50 per cent of the employees. One plant has given all its employees a bonus of 16 per cent. Another reports a few increases but does not state the amount of increase nor number affected.

Iron and steel: Four plants report increases in wage rates. One plant reports an increase of 5 per cent to 83 per cent of its force and 5.45 per cent to 14 per cent of its force. Another, an increase of 5 per cent to 80 per cent of its employees. One reports an increase of about 4 per cent to all of the employees; and another, an increase of 10 per cent to all tonnage men.

Leather: Five plants report increases in wage rates. One plant reports an increase of 10 per cent to all of the employees, while another reports a 5 per cent increase to the entire force. One reports an increase of 7 per cent to 10 per cent of its employees; another, an increase of 10 per cent to approximately 5 per cent of the force; and a third reports an increase of \$3 per week to about 25 per cent of its force.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1918.

The following table, pertaining to the condition of employment in Great Britain and Ireland, was compiled from a report published in the British Labor Gazette of February, 1918.

The most important change appears in the tin-plate, steel, and galvanized sheet trades, which show a decrease of 7.7 per cent of the mills in operation, as compared with the preceding month, and a decrease of 11.9 per cent as compared with January, 1917.

No material changes relating to the number of employees in January, 1918, and December, 1917, are shown. Seamen show an increase of 6.3 per cent, while the carpet, cotton, and food preparation trades show decreases of 3.7 per cent, 2.6 per cent, and 2.3 per cent, respectively. No other trades show a change of more than 2 per cent, and leather shows no change.

In comparing January, 1918, with January, 1917, as to numbers employed, more important changes are seen. Iron and steel, tailoring, and linen show the greatest increases—5.8 per cent, 5.3 per cent, and 3.7 per cent, respectively. Seamen show a decrease of 29.7 per cent; dock and riverside labor a decrease of 29 per cent; food preparation shows a decrease of 14.3 per cent; cotton, a decrease of 13.4 per cent; quarrying, a decrease of 8.3 per cent; corset trade, a decrease of 8.1 per cent; while eight other trades show decreases ranging from 4 per cent to 6.9 per cent.

In January, 1918, as compared with December, 1917, several changes in earnings are shown. Cement and shirt and collar trades show increases of 4.3 per cent and 2.8 per cent, respectively. Linen shows a decrease of 6.9 per cent; pottery, a decrease of 5.8 per cent; while ten others show decreases ranging from 2.2 per cent to 4.6 per cent.

Comparing January, 1918, with January, 1917, in regard to earnings of employees, important changes are shown, all of which are increases. The tailoring trade shows an increase of 39.5 per cent; brick, 27.9 per cent; linen, 26.9 per cent; hosiery, 23.4 per cent; and bookbinding, 21.2 per cent. Cement and silk show increases of 20.8 per cent and 20.6 per cent, respectively. Nine other trades show increases ranging from 11.6 per cent to 19.3 per cent, while four others show minor increases.

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VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1918, AS COMPARED WITH DECEMBER, 1917, AND JANUARY, 1917.

[Compiled from figures in The Labor Gazette (London), February, 1918.]

Industries, and basis of comparison.	Per cent of increase (+) or decrease (—) in January, 1918, as compared with—		Industries, and basis of comparison.	Per cent of increase (+) or decrease (—) in January, 1918, as compared with—	
	December, 1917.	January, 1917.		December, 1917.	January, 1917.
Coal mining: Average number of days worked.....	-0.7	- 4.2	Shirt and collar trade:		
Iron mining: Average number of days worked.....	- .7	(¹) - 8.3	Number of employees.....	-1.5	- 6.8
Quarrying: Number of employees.....	- .4	- 8.3	Earnings of employees.....	+2.3	+15.4
Pig iron: Number of furnaces in blast.....	- .3	+ .7	Other clothing trades:		
Iron and steel works:			Dressmaking and millinery—		
Number of employees.....	+ .4	+ 5.8	Number of employees.....	+1.8	- 1.3
Number of shifts worked.....	+ .3	+ 6.0	Wholesale mantle, costume, blouse, etc.—		
Engineering trades: Number of employees ²	- .04	- .3	Number of employees—		
Shipbuilding trades: Number of employees ²	+ .04	+ .01	London.....	+1.0	(¹)
Tin-plate, steel, and galvanized sheet trades: Number of mills in operation.....	-7.7	-11.9	Number of employees—		
Cotton trade:			Manchester.....	-1.7	- 1.7
Number of employees.....	-2.6	-13.4	Number of employees—		
Earnings of employees.....	-4.6	+ 4.3	Glasgow.....	-1.5	(¹)
Woolen trade:			Corset trade—Number of employees.....	-1.4	- 8.1
Number of employees.....	-1.8	- 4.9	Building and construction of works: Number of employees.....	- .05	+ .4
Earnings of employees.....	-2.2	+17.0	Sawmilling and machining: Number of employees.....	- .06	- .1
Worsted trade:			Brick trade:		
Number of employees.....	-1.3	- 2.6	Number of employees.....	- .8	+ 1.4
Earnings of employees.....	-3.7	+17.6	Earnings of employees.....	-1.3	+27.9
Hosiery trade:			Cement trade:		
Number of employees.....	+ .5	- 2.1	Number of employees.....	-1.1	- 5.3
Earnings of employees.....	+1.1	+23.4	Earnings of employees.....	+4.3	+20.8
Jute trade:			Printing, bookbinding, and paper trades:		
Number of employees.....	-1.8	- 2.2	Printing trades—		
Earnings of employees.....	-3.4	+19.3	Number of employees reported by trade-unions ²	+ .3	+ .3
Linen trade:			Number of employees reported by employers.....	-1.5	- 6.9
Number of employees.....	-1.7	+ 3.7	Earnings of employees reported by employers.....	-1.7	+11.6
Earnings of employees.....	-6.9	+26.9	Bookbinding trade—		
Silk trade:			Number of employees reported by trade-unions ²	+ .1	+ .3
Number of employees.....	- .6	- 2.6	Number of employees reported by employers.....	- .2	- 2.9
Earnings of employees.....	- .5	+20.6	Earnings of employees reported by employers.....	- .7	+21.2
Carpet trade:			Paper trades—Number of employees.....	+1.2	- .7
Number of employees.....	-3.7	- 4.0	Pottery trades:		
Earnings of employees.....	-3.7	+15.0	Number of employees.....	-1.6	- 3.1
Lace trade:			Earnings of employees.....	-5.3	+13.3
Number of employees.....	- .4	- 5.2	Glass trades:		
Earnings of employees.....	-1.5	+ 9.4	Number of employees.....	- .4	- .9
Bleaching, printing, dyeing, and finishing:			Earnings of employees.....	-3.8	+15.6
Number of employees.....	-1.3	- 4.5	Food preparation trades:		
Earnings of employees.....	-2.8	+19.2	Number of employees.....	-2.3	-14.3
Boot and shoe trade:			Earnings of employees.....	-2.8	+ 9.2
Number of employees.....	- .4	- 6.9	Dock and riverside labor: Number of employees.....	- .2	-29.0
Earnings of employees.....	-2.9	+ 5.4	Seamen: Number of employees.....	+6.3	-29.7
Leather trades: Number of employees ²	(¹)	+ .4			
Tailoring trades:					
Number of employees.....	- .2	+ 5.3			
Earnings of employees.....	-2.7	+39.5			

¹ No change.² Based on unemployment returns.

The table following shows by occupation groups, the number of individuals registered, the vacancies notified, and the vacancies filled, indicating the extent of unemployment in Great Britain during the

five weeks ending January 11, 1918. The totals for this period are also compared with the totals for the four weeks ending December 7, 1917.

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN THE 5 WEEKS ENDED JANUARY 11, 1918.

A.—Insured trades.

Occupation group.	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies notified during period.		Vacancies filled during period.		Vacancies notified during period.		Vacancies filled during period.	
	Men.	Wom-en.	Men.	Wom-en.	Men.	Wom-en.	Boys.	Girls.	Boys.	Girls.
Building:										
Carpenters, joiners, etc.	3, 156	264	3, 504	149	2, 237	141	86	1	44	1
Bricklayers	1, 644	4	2, 447		1, 209		3		3	
Masons	396	1	49	1	45		2		1	
Plasterers	636		206		164					
Painters, decorators, etc.	3, 454	308	1, 160	152	841	151	14		9	2
Plumbers, glaziers	457	3	496	1	229	2	33		23	
Other skilled occupations	82	1	51		13		10		5	
Laborers	6, 428	93	5, 832	93	4, 155	78	110		100	
Works of construction	8, 950	33	11, 963	29	9, 519	33	53		53	
Saw milling	1, 124	1, 381	929	1, 143	533	948	240	113	220	94
Shipbuilding:										
Platers, riveters	1, 169	12	1, 439	12	771	12	59		37	
Shipwrights	301	2	815		266		48		20	
Laborers	2, 401	259	2, 526	163	1, 472	166	124	12	111	15
Engineering:										
Molders	1, 088	132	707	75	532	60	73	22	55	14
Smiths	597	91	559	113	274	68	28	4	17	4
Erectors, fitters, turners	6, 816	2, 063	6, 860	822	4, 900	743	712	24	689	25
Metal machinists	2, 300	8, 241	1, 826	6, 450	1, 167	5, 946	510	323	496	260
Wiremen	573	68	819	87	352	72	48	5	42	6
Other skilled occupations	2, 597	7, 098	2, 077	2, 428	1, 803	2, 114	266	146	205	118
Laborers	8, 828	2, 099	7, 388	2, 095	5, 982	1, 858	351	99	364	79
Construction of vehicles	740	447	434	367	218	342	39	5	37	3
Cabinet making, etc.	219	126	138	15	70	10	36	6	33	4
Miscellaneous metal trades	1, 427	1, 701	1, 665	903	1, 161	752	234	306	202	256
Precious metals, etc.	122	176	159	153	43	116	44	33	33	27
Brick, cement	51	59	205	62	65	52	11	6	5	2
Chemicals, etc.	635	613	938	669	548	574	144	80	142	72
Rubber and waterproof goods	154	661	169	468	149	459	37	11	30	35
Ammunition and explosives	3, 106	27, 927	1, 857	6, 357	1, 983	6, 127	251	299	255	341
Leather:										
Boots and shoes	208	248	177	126	96	84	44	43	40	26
Excluding boots and shoes	232	413	101	249	51	221	43	104	36	73
Total	59, 891	54, 524	57, 501	23, 182	40, 348	21, 129	3, 653	1, 642	3, 307	1, 457
Total, males and females	114, 415		80, 683		61, 477		5, 295		4, 764	
Four weeks ending Dec. 7, 1917.	115, 089		88, 387		67, 100		5, 624		4, 979	

B.—Uninsured trades.

Mining and quarrying	581	10	857	6	365	1	66	4	34	5
Textile:										
Cotton	284	669	304	712	148	320	111	112	82	67
Wool and worsted	152	260	97	200	55	145	44	51	35	50
Silk, flax, linen, etc.	261	1, 411	180	568	126	473	166	293	140	317
Dress:										
Tailors and tailoresses	167	566	90	344	21	241	34	152	27	128
Dressmakers and milliners		478		171		109		153		117
Seamstresses		725		334		290		214		144
Others	129	805	35	193	10	193	34	58	21	49
Conveyance of men, goods, etc.:										
On railways	169	180	437	195	303	183	117	1	96	2
On roads, seas, rivers, etc.	8, 451	2, 697	6, 102	1, 678	4, 249	1, 321	2, 247	1, 125	1, 722	829
Agriculture	619	673	602	672	127	345	77	22	45	15

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN
THE 5 WEEKS ENDED JANUARY 11, 1918—Concluded.

B.—Uninsured trades—Concluded.

Occupation group.	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies notified dur- ing period.		Vacancies filled during period.		Vacancies notified dur- ing period.		Vacancies filled during period.	
	Men.	Wom- en.	Men.	Wom- en.	Men.	Wom- en.	Boys.	Girls.	Boys.	Girls.
Paper, prints, books and sta- tionery.....	141	905	219	544	76	414	205	407	178	321
Wood, furniture, fittings, etc..	16	80	41	50	5	40	64	48	53	36
Pottery and glass.....	79	226	107	137	47	79	60	71	61	41
Food, tobacco, drink, and lodg- ing:										
Bread and biscuit, etc., makers.....	92	243	97	362	22	307	72	65	53	57
Waiters.....	92	1,361	70	844	35	621	32	47	29	41
Others (jam, cocoa, and tobacco).....	131	594	247	860	96	729	83	221	62	179
Brushes, brooms, etc.....	10	22	9	7	5	5	10	25	8	13
Gas, water, electrical supply, and sanitary service.....	178	41	917	152	609	125	19		16	
Commercial and clerical.....	3,554	9,224	1,438	3,245	989	2,523	805	1,099	597	922
Domestic:										
Laundry and washing service.....		648		1,240		816		116		73
Private indoor servants.....		1,477		2,133		568		236		85
Other indoor servants.....	1,403	6,059	1,181	6,515	614	4,616	402	349	267	206
Charwomen, day girls, day servants.....		8,658		9,155		6,376		1,058		521
Others.....		274		176		125		29		9
General laborers.....	11,398	7,791	3,452	1,160	2,731	836	530	401	450	338
Shop assistants.....	508	2,578	195	464	82	305	104	484	78	370
Government, defense, and pro- fessional.....	1,435	4,726	886	1,642	608	1,524	356	255	353	224
All others.....	1,247	2,243	617	265	365	194	1,576	570	1,498	499
Total.....	31,097	56,224	18,180	34,024	11,688	23,824	7,214	7,666	5,905	5,658
Total, males and females.....	87,321		52,204		35,512		14,880		11,563	
4 weeks ending December 7, 1917.....	101,230		52,794		36,355		16,600		12,856	
Casual employment (men only).....	93				1,610					

This table shows that during the period in the insured trades 114,415 adults registered for work, 57,891 men and 54,524 women. There were 85,978 vacancies reported, 57,501 men, 23,182 women, 3,653 boys, and 1,642 girls. The number of positions filled was 66,241, 40,348 men, 21,129 women, 3,307 boys, and 1,457 girls. The occupation group in which the largest number of positions were filled by adults were: Works of constructions, 9,552; ammunition and explosives, 8,110; laborers, engineering, 7,840; metal machinists, 7,113; erectors, 5,643; and laborers, building, 4,233.

In the uninsured trades there were 87,321 registrations, 31,097 men and 56,224 women. The number of vacancies reported was 67,084, 18,180 men, 34,024 women, 7,214 boys, and 7,666 girls. The total number of positions filled was 47,075, 11,688 men, 23,824

women, 5,905 boys, and 5,658 girls. The occupation groups in the uninsured, in which the largest number of positions were filled by adults, were: Domestic service, 13,115; conveyance of men, goods, etc., 6,056; general laborers, 3,567; and commercial and clerical, 3,512.

The total number of positions filled by adults in both the insured and uninsured trades during the five weeks ending January 11, 1918, as compared with the preceding four weeks ending December 7, 1917, shows a decrease of 6.3 per cent. The decrease in the number of positions filled by men was 3 per cent; by women, 9.7 per cent. The largest number of women were employed in domestic service.

No comparison can be made of the number of registrations in the employment exchanges of Great Britain with the number of applications for work reported by the employment offices of the United States, owing to the differences in method of registering applicants. It is possible, however, to make a comparison of positions filled by the offices in the two countries. The figures show the following result:

	Number of offices.	Positions filled.		
		Total.	Average per day.	Average per day, each office.
Great Britain.....	388	113,316	4,047	10.4
United States.....	99	93,149	3,583	36.2

The above figures are significant in view of the fact that a very large percentage, if not practically all, of the employment office work of Great Britain is done through the free-employment exchanges, while in the United States but a very small proportion of the placements is made through the public-employment offices, the much greater proportion being handled by the private-employment agencies.

EMPLOYMENT SYSTEM OF THE LAKE CARRIERS' ASSOCIATION.

At a convention held in New York City in December, 1916, the International Seamen's Union of America adopted a resolution requesting the United States Department of Labor "to investigate the employment system, shipping offices, and so-called 'welfare plan' of the Lake Carriers' Association, and to make public the results of such investigation." The resolution charged that this welfare plan was virtually a strike-breaking and blacklisting system, the continuation of which would almost certainly lead to a serious strike on the Lakes. In compliance with the above resolution an investigation was made by the United States Bureau of Labor Statistics, the results of which are presented in Bulletin No. 235, just issued.

The Lake Carriers' Association is composed of 64 vessel owners or managers, operating over 400 vessels carrying iron ore, coal, and grain upon the Great Lakes. Its declared object, among other things, is "to establish and maintain by contract or otherwise such amicable relations between employers and employed as will avoid the public injury that would result from lockouts and strikes in the lake carrying-service."

The "welfare plan," as finally put into effect in 1908, provides for the maintenance of assembly rooms at the various lake ports and sailors are given the privileges of these rooms on payment of an annual fee of \$1, which entitles them to a certificate of membership in the "welfare plan." When labor is at a premium nonmembers may be shipped, but preference is given to welfare men. Each man registered is given a registration or record discharge book, called by the association the welfare book, in which is kept a serial record of his service on the boats of the association. When applying for work the man must present this book to the "commissioner" or shipping master in charge of the local assembly room or shipping office and to the captain or chief engineer of the boat on which he ships. The book is kept in the possession of the captain or chief engineer until he signs the sailor's discharge record for the trip. If the entry be good or fair the book is returned direct to the man, but if the officer decides that such entry can not be made, and in case of desertion or failure to serve after being engaged, the book is returned by the master to the secretary of the association with an explanatory statement. The association thereupon takes such action as it may deem wise and just as to canceling the sailor's certificate of membership.

At the time the welfare plan was put into effect the association announced that it had definitely adopted the "open-shop principle." The majority of the welfare men are nonunion men and the union man who registers under the plan ceases to be an active union man. Many seamen are bitterly antagonistic to this shipping system. Their opposition is partly due to the fact that apart from its merits or demerits they feel that it is a plan imposed upon them in the operation of which they have no part. They consider that it is undemocratic and that it seriously infringes upon their freedom of action and their right to organize for the betterment of their working conditions. The union men insist that despite the general improvement of sanitary and labor conditions aboard ship, the sailors are now really worse off than they were prior to the inauguration of the welfare plan and that they are subject to a system of virtual espionage, and under constant apprehension of the black list. In 1916 the rate of labor turnover on the association's books was more than 600 per cent.

The association denies that the assembly rooms are shipping or employment offices on the ground that it is the captain of the boat and not the commissioner who does the actual hiring. As the scheme actually operates, however, the assembly rooms become clearing houses for the buying and selling of seafaring labor, which is virtually engaged by the commissioner subject to the approval of the ultimate employer. While there is no question that the association is making a systematic and sincere attempt to enforce a policy of neutrality toward the unions, the interpretation and practical application of its open-shop principle and the actual operation of the welfare plan have undeniably had a damaging effect upon the lake unions.

A strike for higher wages and for the abolition of the welfare plan—particularly the continuous discharge book feature—was ordered for October 1, 1917. In view of this contemplated strike the United States Shipping Board made an investigation of the welfare plan and the discharge-book system. Conferences were meanwhile held with representatives of the lake seamen's unions and the Lake Carriers' Association, at which the Shipping Board was assured that the Lake Carriers' Association would abolish the discharge book and modify the welfare plan in any manner the board might direct after fair investigation. As a result of its investigation the Shipping Board decided that the discharge book is undesirable and should be abolished.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

ADEQUACY OF WORKMEN'S COMPENSATION LAWS.¹

BY CARL HOOKSTADT.

Forty States and Territories have placed workmen's compensation laws upon their statute books. Ten of these laws were enacted in 1911 and have therefore been in effect about six years. It may be well to consider at this time the extent to which these laws are meeting the requirements for which they were enacted. In other words, to what degree are they adequate? What proportion of employees are receiving compensation? How much are they receiving? Is it sufficient for their needs? To what extent are the laws operating and effective? That is, do injured employees actually receive the benefits provided for in the statutes?

SCOPE.

It is of no particular significance to an injured workman to know that the compensation law in his State has a high scale of benefits if his occupation does not come within the scope of the act. It is important, therefore, to ascertain just how many employees are covered by the various compensation laws. New Jersey is the only State which includes all employments, while Hawaii is the only jurisdiction covering all employments except those nonindustrial in character. Fourteen States² limit their acts to "hazardous" employments, thereby excluding the trades and professions as well as farm labor and domestic service. Eighteen States³ exempt the small employers, i. e., those having less than a stipulated number of employees. Eight⁴ exclude all public employees, while most of the States exclude casual labor and employments not conducted for gain or for the purpose of the employer's business. Interstate railroad employees are necessarily excluded because of Federal legislation.

But what do these various exclusions mean when applied in the several States? How many employees are actually excluded through the nonhazardous, or numerical, or agricultural, or domestic service

¹ Partial summary of a forthcoming bulletin (No. 240) on the comparison of workmen's compensation laws in the United States.

² Alaska, Arizona, Illinois, Kansas, Louisiana, Maryland, Montana, New Hampshire, New Mexico, New York, Oklahoma, Oregon, Washington, and Wyoming.

³ Alaska, Colorado, Connecticut, Delaware, Kansas, Kentucky, Maine, New Hampshire, New Mexico, Ohio, Oklahoma, Porto Rico, Rhode Island, Texas, Utah, Vermont, Wisconsin, and Wyoming.

⁴ Alaska, Arizona, Delaware, New Hampshire, New Mexico, Porto Rico, Texas, and West Virginia.

exemptions? An attempt has been made to compute the actual number of employees excluded. These computations are based upon a detailed study of the Federal occupation census of 1910, and though the absolute figures would understate the numbers as they exist at present the percentages would probably remain the same.

The following table shows the number and percentage of employees excluded in the 40 compensation States for each of the several classes of occupations:

NUMBER AND PER CENT OF EMPLOYEES EXCLUDED FROM PROVISIONS OF COMPENSATION ACTS, BY CLASSES OF OCCUPATIONS.

Employments excluded.	Number of States excluding each occupational group.	Number of employees excluded.	Percentage of employees excluded to total number of employees.	Percentage of employees excluded to total employees excluded.
Agriculture.....	38	2,213,259	11.1	35.5
Domestic service.....	39	1,965,600	9.9	31.5
Nonhazardous (trades, professions, etc.).....	14	1,773,998	8.9	28.5
Small employers.....	18	283,279	1.4	4.5
Total.....	40	6,236,136	31.3	100.0

It will be noted that 6,236,136 or 31.3 per cent of all employees in the 40 compensation States are not covered by the several acts. In addition there are some 1,200,000 interstate railroad employees excluded from the benefits of State compensation acts because of Federal jurisdiction over interstate commerce. The exclusion of 31.3 per cent of the employees, however, does not necessarily mean that the same percentage of accidents are noncompensable. The exempted employments, especially the professions, domestic service, and clerical occupations, are on the whole less hazardous than manufacturing and mining.

But thus far it has been assumed that all the employers coming within the scope of the law in the elective States have actually elected to come under the compensation provisions of the acts. As a matter of fact, however, this is not true. In some States practically all of the employers have accepted the act, while in others relatively few have done so. In New Hampshire only 19 employers, employing 19,000 persons, were under the compensation law in 1916. These employees constitute less than 25 per cent of those potentially covered by the act and only 13 per cent of the total employees in the State. The Iowa compensation commissioner estimated (1915) that approximately 25 per cent of the employees coming within the scope of the compensation law were deprived of compensation benefits because of the employers' rejection of the act. The Oregon industrial commission stated (1915) that 15 to 20 per cent of the employees were

not entitled to compensation benefits for similar reasons. The United States Bureau of Labor Statistics estimated ¹ that in Massachusetts less than 78 per cent of the total employees in the State are entitled to compensation, whereas not less than 85 per cent come within the statutory scope of the act. The Illinois Industrial Accident Board reported in 1915 that 831 employers, 187 of whom were mine operators, had rejected the compensation law. Because of this refusal of employers to accept the compensation provisions elective compensation acts have been severely criticized. The Massachusetts board recommended the substitution of a compulsory law for the elective system, while Illinois changed to a compulsory law in 1917.

As already noted, the number of employees outside the statutory scope of the acts in the 40 compensation States is estimated at 31.3 per cent. In view of the large number of rejections just cited, the number of accidents not receiving compensation is not far from the same percentage.

COMPENSATION BENEFITS.

In any attempt to determine the adequacy of the compensation benefits provided for in the various laws it is obviously necessary to have a standard of adequacy. No such standard has as yet been adopted or agreed upon. No 2 of the 40 States have adopted the same type of law and with the possible exception of Oregon and Washington no State seems to have followed any definite theory in this respect. The necessity for a workable law, not excessively burdensome to the employer and not conducive to malingering, while affording such reasonable benefits to the injured workman as to prevent hardships to himself and his dependents, has led to a wide variety of attempts to determine the proper amounts to be awarded. In general it may be said that the State compensation schedules are based upon the loss of earning power modified both by the employee's need and by the desire to limit the employer's burden.

One of the accepted principles of workmen's compensation is that the industry shall bear the burden of industrial accidents. But compensation benefits based upon the social need of the injured employee or his family do not accord with this principle although payments upon such a basis may be desirable as a social and economic policy. The compensation benefits of the Oregon and Washington laws are based upon this principle of need rather than upon loss of earning power. It must not be understood, however, that the employer is bearing the entire cost of industrial accidents. As a matter of fact, he is not bearing one-half the burden and in many cases not 25 per cent of it.

¹ See MONTHLY REVIEW for March, 1917, p. 414.

For the present purpose let it be assumed that an adequate workmen's compensation law is one which provides complete indemnity for the loss of earnings resulting from the injury. Such indemnity shall include necessary medical and surgical service and full wages for total disability or death, during such disability or during the industrial life expectancy of the employee at the time of the injury. In case of partial disability compensation shall be proportioned to the wage loss and continue during disability. The compensation benefits thus based upon loss of earnings would also fulfill the requirements as to social needs, assuming, of course, that the workers' wages adequately meet their needs. With such a standard of adequacy as a basis, to what extent do the present laws meet the requirements?

WAITING PERIOD.

With the exception of the laws of Oregon and of Porto Rico every State compensation law provides for a preliminary waiting period during which no compensation is paid. The reason for this non-compensable preliminary period is to prevent malingering and to avoid the undue administrative expense resulting from a policy of paying compensation for every accident causing disability. Just what the most advantageous waiting period is has never been determined. Oregon and Porto Rico, as already stated, have none. It would seem, however, that a waiting period of not over seven days is ample to meet the objections mentioned; and if the disability continues longer than three weeks compensation should be paid from date of injury. Twenty-three States (57.5 per cent) have a waiting period in excess of seven days. Of these, New Mexico requires three weeks; California, Massachusetts, Utah, and Wyoming require 10 days; while 18 States¹ require two weeks. Thirteen States,² however, abolish the waiting time entirely if the disability continues beyond a stipulated period.

SCALE.

In no State does the amount of compensation provided equal full wages. Of the 37 States in which the amount of compensation is based upon wages Porto Rico alone provides 75 per cent; Massachusetts, Nebraska, New York, and Ohio provide 66 $\frac{2}{3}$ per cent; California, Illinois, Kentucky, and Wisconsin 65 per cent; Hawaii, Kansas, Minnesota, and Texas 60 per cent; Idaho, Indiana, and Utah 55 per cent; while 21 States,³ or 57 per cent, provide only 50 per cent.

¹ Oregon, Arizona, Colorado, Delaware, Iowa, Kentucky, Maine, Maryland, Michigan, Montana, New Hampshire, New Jersey, New York, Oklahoma, Pennsylvania, Rhode Island, South Dakota, and Vermont. (Vermont reduced its waiting period to one week in 1917, effective July 1, 1918.)

² Alaska, Arizona, Illinois, Louisiana, Michigan, Nebraska, Nevada, New York, Rhode Island, South Dakota, Washington, Wisconsin, and Wyoming.

³ Alaska, Arizona, Colorado, Connecticut, Delaware, Iowa, Louisiana, Maine, Maryland, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Vermont, and West Virginia.

MAXIMUM LIMITATIONS.

The amount of compensation benefits derived from applying the several percentages to the wages is, however, further reduced through various limitations. These limitations consist of maximum weekly compensation payments, maximum periods during which compensation is to be paid, and maximum amount of benefits any employee or beneficiary can receive. Practically all of the States place a limitation upon the amount of weekly or monthly compensation. In 23 States the weekly maximum is limited to \$12 or less. The extent to which compensation benefits are reduced by the weekly maximums depends, of course, upon the wage level in the several States. At present the influence of this factor has greatly increased because of the high wage level due to the war.

COMPENSATION PERIODS.

If an adequate compensation law requires the payment of benefits during the disability or dependency of the injured employee or his dependents, then few laws are adequate. Seventeen States¹ provide compensation payments for life in case of permanent total disability. An equal number of States provide that benefits for such disabilities shall continue for 8 or 10 years. The remaining 6 States make varying provisions. The statutory benefits in case of fatal accidents are, on the whole, less liberal than those provided for permanent total disability. This is no doubt due to the belief that a workman totally and permanently disabled is a greater economic loss to his family than if he were killed outright. Whereas 17 States make compensation benefits payable for life in case of permanent total disability, only 5 States² provide that benefits in case of death shall continue until the death or remarriage of the widow. A large proportion of the States (17) furnish benefits for approximately 6 years. In addition to the limitation placed upon the duration of payments either in case of disability or death most of the States also place a limit upon the total amount of compensation which any beneficiary can receive. In case of partial disability accidents most of the State laws provide for a schedule of specified injuries causing dismemberment, for which benefits are awarded for fixed periods based roughly upon the loss of earning capacity caused by the loss of the organ. Compensation for such injuries ranges ordinarily from 200 weeks for the loss of an arm to 15 weeks for the loss of a little finger.

¹ Arizona, California, Colorado, Delaware (\$4,000 maximum), Idaho, Illinois, Maryland (\$5,000 maximum), Montana, Nebraska, Nevada, New York, Ohio, Oregon, South Dakota (\$3,000 maximum), Utah, Washington, and West Virginia.

² Nevada, New York, Oregon, Washington, and West Virginia.

To what extent, then, are the benefits of our State compensation laws adequate from the viewpoint of the duration of payments for the several kinds of disabling accidents? In other words, what is the ratio of payment periods provided for in the compensation acts to the life expectancy of the injured man at the time of the accident? Again, how fully do the specific injury-schedule payments meet the loss of earning power occasioned by these injuries? The committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions in a recent report formulated a schedule of severity ratings of industrial injuries computed on the basis of time lost.¹ Death and permanent total disability, each rated at 1,000 weeks, are used as the base and partial disabilities computed therefrom.

The purpose of the schedule of severity ratings was to obtain a more accurate measure of industrial hazards and was not intended as a basis of compensation awards. In fact, the committee disclaims any such intention. Assuming, however, that the schedule is a reasonable measure of adequacy for compensation payment, it is interesting to note the percentages of adequacy for the more important injuries provided for by the several State compensation laws. The following table attempts to show such percentages of adequacy using the committee's schedule as 100 per cent. These percentages refer only to periods of time during which compensation is paid and do not take into account the per cent or rate of compensation.

¹ The committee's severity rates of the more important injuries expressed in time lost are as follows: Death and permanent total disability, 1,000 weeks; loss of arm, 600 to 750 weeks; hand, 500 weeks; thumb, 100 weeks; index finger, 50 weeks; leg, 500 to 750 weeks; foot, 400 weeks; great toe, 50 weeks; sight of one eye, 300 weeks; hearing, one ear, 100 weeks; hearing, both ears, 500 weeks. For a complete report of this committee see pp. 123 to 143 of the October, 1917, MONTHLY REVIEW.

PERCENTAGE OF ADEQUACY OF DURATION OF PAYMENTS FOR SPECIFIED INJURIES PROVIDED FOR IN THE SEVERAL STATES, USING THE I. A. I. A. B. C. COMMITTEE SCHEDULE AS 100 PER CENT.

State.	Total disability.	Loss of—							
		Arm.	Hand.	Thumb.	Index finger.	Leg.	Foot.	Great toe.	Sight of 1 eye.
Committee	100	100	100	100	100	100	100	100	100
Colorado.....	100	28	21	35	36	28	26	36	35
Connecticut.....	52	28	31	38	76	36	33	76	35
Delaware.....	26	32	32	60	92	39	36	76	38
Hawaii.....	31	42	49	60	92	58	51	76	43
Idaho.....	100	27	30	30	40	30	31	30	33
Illinois.....	100	27	30	60	70	35	31	60	33
Indiana.....	50	27	30	60	60	35	31	60	33
Iowa.....	40	27	30	40	60	35	31	50	33
Kansas.....	42	28	30	60	74	40	31	60	37
Kentucky.....	42	27	30	60	90	40	31	60	33
Louisiana.....	40	27	30	50	60	35	31	40	33
Maine.....	40	27	30	50	60	30	31	50	33
Maryland.....	50	27	30	50	60	35	38	50	33
Michigan.....	50	27	30	60	70	35	31	60	33
Minnesota.....	55	27	30	60	70	35	31	60	33
Montana.....	100	27	30	30	20	26	31	20	33
Nebraska.....	100	27	30	60	70	35	31	60	33
Nevada.....	100	29	35	65	78	39	38	60	36
New Jersey.....	40	27	30	60	70	35	31	60	33
New Mexico.....	52	20	22	30	40	24	25	30	33
New York.....	100	42	49	60	92	58	51	76	43
Ohio.....	100	27	30	60	70	35	31	60	33
Oklahoma.....	50	33	40	60	70	35	38	60	33
Oregon.....	100	55	66	104	138	76	69	86	58
Pennsylvania.....	50	29	35	60	70	43	38	60	33
South Dakota.....	27	30	30	40	60	30	31	60	33
Texas.....	40	27	30	60	90	40	31	60	33
Utah.....	100	27	30	30	20	30	31	30	33
Vermont.....	26	23	28	40	50	34	30	40	33
Wisconsin.....	43	43	48	70	64	44	45	50	47
Average.....	64	29	33	53	66	38	35	55	36

In considering the above table it must be borne in mind that several States¹ pay compensation for total disability during the healing period in addition to the schedule of payments for partial disability. Two important facts stand out, however. One is the relatively greater awards for the minor injuries; and the other is the small proportionate awards for all injuries. The average statutory compensation provided for the loss of an arm, hand, or foot is approximately one-third of the loss of earning capacity caused by such injuries. Moreover, this schedule, as already noted, refers only to time. When the statutory wage percentages are applied the percentages of adequacy are still further reduced. This can better be shown by way of a concrete illustration. For example, what compensation benefits would a man earning \$20 a week receive for various types of injuries under the committee's schedule and under the laws of New York and New Mexico? These two States are taken because they represent, respectively, the most liberal and least liberal of the several compensation States.

¹ Illinois, Nevada, New Jersey, Ohio, South Dakota, and Vermont.

COMPARISON OF BENEFITS UNDER I. A. I. A. B. C. COMMITTEE SCHEDULE AND UNDER COMPENSATION LAWS OF NEW YORK AND NEW MEXICO.

Type of injury.	Money benefits received.			Per cent of New York benefits to committee benefits.	Per cent of New Mexico benefits to committee benefits.
	Committee.	New York.	New Mexico.		
Permanent total disability.....	\$20,000	\$13,333	\$5,200	67	26
4 weeks' disability.....	80	27	10	33	13
13 weeks' disability.....	260	173	100	67	38
Loss of—					
Arm at shoulder.....	15,000	4,160	1,500	28	10
Hand.....	10,000	3,253	1,100	33	11
Thumb.....	2,000	800	300	40	15
Index finger.....	1,000	613	200	61	20
Leg at knee.....	10,000	3,840	1,200	38	12
Foot.....	8,000	2,733	1,000	34	13
Great toe.....	1,000	507	150	51	15
1 eye.....	6,000	1,707	1,000	28	17
				New York.	New Mexico.
Per cent of employees covered by act.....				59	31
Medical service furnished for.....days.....				60	121

¹ Maximum, \$50.

The above table fully substantiates the statement of Mr. A. W. Whitney that "In practice the beneficence of the most liberal law is probably not more than 50 per cent of full indemnity and the beneficence of the least liberal law is not over half that of the most liberal."¹ When the inadequate medical service and the inadequate scope of the acts are also considered the inadequacy of our compensation laws is striking. In view of these facts it is rather misleading to say that the burden of industrial accidents is borne by the employer. As a matter of fact at least from 50 to 75 per cent of this burden is borne directly by the employee.

ADEQUACY OF DEATH BENEFITS.

Compensation benefits in case of death have been based to a large extent upon the principle of need. Thus, in many cases the percentage of compensation has been proportioned in accordance with the conjugal condition and number of dependents of the injured man. The statutory provisions for fatal injuries have already been noted. To what extent our State compensation laws are meeting the economic needs of the decedent's family is indicated by a study recently made by the United States Bureau of Labor Statistics.² The purpose of this investigation was to ascertain what effect workmen's compensation laws had in diminishing the necessity of industrial employment of women and children. The States of Connecticut

¹ Bul. 212, U. S. Bureau of Labor Statistics, Proceedings of the conference on social insurance, p. 194.² Bul. 217, U. S. Bureau of Labor Statistics, effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. (In press.)

and Ohio were selected. The study was made in 1915 and was limited to fatal and permanent total disability accidents. The Connecticut law then provided weekly compensation benefits of 50 per cent of the employee's wages, but not over \$10,¹ for a period of 312 weeks for death; the Ohio law similarly provided weekly benefits of 66 $\frac{2}{3}$ per cent of wages, but not over \$12, for the same period.²

It was found that the average amount of compensation awarded to families of married decedents in Connecticut was \$2,269, while the average in Ohio was \$3,098. The larger amount in Ohio is due to the higher percentage of compensation, higher weekly maximum, and higher wage level. The loss of the decedent's wages to the family "even when modified by compensation, was a serious matter, in some cases amounting to disaster. A rough measure of the extent of the loss may be found by comparing the family income before and after the accident. This is not a satisfactory measure, because after the accident the income sometimes consists of the earnings of children who have been taken from school to work or of mothers who must leave their children to go out and earn food for them, but at least it gives some idea of what the worker's death has meant financially to his family."

There were several methods of making up the deficit in the family income. Children might be taken out of school and put to work, the family might move into cheaper quarters, the widow might go to work, or friends or relatives or charitable organizations might be called upon for help. These methods were resorted to in varying degrees. As regards the conditions in Connecticut the report elicited the following facts: Taking children out of school to work was the method least frequently used. Only two cases were found in which this had been done. Moving into cheaper quarters was a more common means of meeting the situation. Eight families, not counting those to whom relatives gave a home, made this change. The commonest method of meeting the emergency was for the widow to find some way of earning money. Of 50 widows, 10 worked for money both before and after the fatality, and 11 who had not been gainfully employed before took up such employment after losing their husbands. Of all those subsequently employed, 7 kept roomers or boarders, 6 did some form of domestic work, 4 were employed in factories, while the others were employed in various other occupations. Of the 11 women who took up work for pay as a result of the husband's death, 5 worked away from home even though they had small children.

In Ohio, for reasons already stated, the compensation benefits received were somewhat greater than those awarded in Connecticut.

¹ Increased to \$14 in 1917.

² Increase to 8 years in 1917.

The economic distress therefore was not so acute. The methods and needs of making up the deficit in family income were, however, similar to those in Connecticut.

Summarizing the combined results of the two States shows the following facts: Taking the children out of school to put them to work was seldom resorted to; the percentage of widows who took up gainful pursuits as a result of the death of their husbands was 26.3 per cent; the percentage of families of married decedents who moved into cheaper quarters was 11; while the percentage of families receiving charitable aid was 1.6. In the latter, however, no account was taken of help given by relatives or neighbors.

MEDICAL SERVICE.

It may not be deemed advisable to pay full compensation benefits but there appears to be no valid reason why adequate and unlimited medical service should not be furnished. Adequate medical treatment is absolutely essential to complete rehabilitation yet only 4 of the 40 State compensation laws (California, Connecticut, Idaho, and Porto Rico) require the employer to furnish unlimited medical services. Several laws make no provision for medical treatment whatever, and in others the low maximum limits make adequate treatment impossible.

The following table shows the medical service requirements of the several State laws classified as to length of time and maximum amounts for which the employer is liable:

LENGTH OF TIME DURING WHICH MEDICAL SERVICE IS FURNISHED, AND MAXIMUM AMOUNTS.

None.	2 weeks.	3 weeks.	4 weeks.	30 days.	6 weeks.	60 days.	90 days.	Unlimited as to time.
Alaska	Del. (\$25)..	Mich.	Iowa (\$100)..	Colo. (\$100)..	Ill. (\$200)	N.Y.	Ky. (\$100).	Cal.
Ariz.	Me. (\$30) ..	Nebr. (\$200) ¹	R. I.	Ind.	Kans. (\$150). ²	.....	Minn. (\$100)	Conn.
N. H.	Mass. ¹	N. Mex. (\$50)	S. Dak. (\$100)	.....	.....	.....	Nev. ¹	H a w a i
Wyo..	Mont. (\$50)	.....	.....	.....	.....	.....	Wis. ¹	(150)
.....	N. J. (\$50)	.....	.....	.....	.....	.....	Idaho.	Idaho.
.....	Okla. ³ .....	.....	.....	.....	.....	.....	La. (\$150).	La. (\$150).
.....	Pa. (\$25) ..	.....	.....	.....	.....	.....	Md. (\$150).	Md. (\$150).
.....	Tex. ⁴ .....	.....	.....	.....	.....	.....	Ohio (\$200). ⁵	Ohio (\$200). ⁵
.....	Vt. (\$100) ..	.....	.....	.....	.....	.....	Oreg. (\$250).	Oreg. (\$250).
.....	.....	.....	.....	.....	.....	.....	P. R. ⁶	P. R. ⁶
.....	.....	.....	.....	.....	.....	.....	Utah (\$200). ⁷	Utah (\$200). ⁷
.....	.....	.....	.....	.....	.....	.....	Wash. ⁸	Wash. ⁸
.....	.....	.....	.....	.....	.....	.....	W. Va. (\$150).	W. Va. (\$150).

¹ Longer period under certain conditions.

² 50 days.

³ 15 days.

⁴ 2 weeks additional in hospital cases.

⁵ Except in unusual cases.

⁶ Necessary medical attendance as prescribed by commission.

⁷ Such medical service as employer or insurer may deem proper.

⁸ Employees contribute one-half.

INJURIES COVERED.

No State holds the employer liable for every injury received by the employee. As a rule, the injury must have been received in the course of the employment and must have arisen out of the employment; usually, also, injuries due to the employee's intoxication, willful misconduct or gross negligence, and occupational diseases are not compensable. Thirty States withhold compensation if the injury is caused by the willful intention of the employee to injure himself or another; 27 deny compensation if the injury is due to intoxication; 13 if caused by willful misconduct; 9 if the employee is guilty of violation of safety laws or removal of safety devices; 9 if the injury is intentionally inflicted by a fellow employee or other person; and one if the injury is caused by an act of God. The exclusion of occupational diseases, however, from the category of compensable injuries is of much greater importance. California, Hawaii, Massachusetts, and the Federal Government are the only jurisdictions awarding compensation for such industrial diseases.

INSURANCE.

Security of compensation payments is reasonably assured if the employer is required to insure his risk in an authorized insurance company or State fund or, in the case of self-insurers, to furnish adequate security. Five of the 40 compensation States (Alaska, Arizona, Kansas, Louisiana, and Minnesota) do not require the employers to insure. Practically the only security possessed by the employees in these States is the provision making compensation payments preferred claims against the property of the employer.

ADMINISTRATION.

Thirty compensation States have commissions or boards to administer the compensation acts, with power to settle disputes and make awards. In the other 10 States¹ disputed cases are adjudicated by the courts. In Minnesota and New Jersey, however, the departments of labor are given limited supervision over the acts and are authorized to aid in the adjustment of disputes but possess no power to make awards.

The need of authoritative agencies to administer compensation laws is sufficiently demonstrated in those States which do not possess them. The average non-English-speaking foreign workman is frequently unfamiliar with his rights under the law and does not know what action to take in case of injury. Complaint, too, is frequent that the fear of discharge acts as an effective deterrent in demanding compensation. The original Nebraska compensation act did not

¹ Alaska, Arizona, Kansas, Louisiana, Minnesota, New Hampshire, New Jersey, New Mexico, Rhode Island, and Wyoming.

provide for an administrative commission but such a commission was established in 1917. The labor commissioner of Nebraska in referring to the operation of the compensation law said:¹

The delay and expense, the unequal footing of the parties in the courts, and unfamiliarity with and inherent fear of court procedure, all operate to defeat the very purpose of a compensation law.

The commissioner of labor of Kansas, for similar reasons, recommends that an administrative compensation commission be provided for that State.

The situation in New Jersey is much the same. A further illuminating side light upon the operation of the law in this State is shown by the relatively small number of compensable accidents reported. This is brought out by a comparison of the Massachusetts accident statistics with those of New Jersey. Both States require all employers to report their accidents. In Massachusetts there were reported 28,060 accidents resulting in death or two weeks' disability during the year 1916, while only 8,611 such accidents were reported in New Jersey. Thus, although New Jersey has 78 per cent as many employees as Massachusetts only 31 per cent as many accidents were reported.

MAKING OF RATES FOR WORKMEN'S COMPENSATION INSURANCE.

Perhaps no phase of workmen's compensation insurance is more important or complex than the principles and practices of rate making. A critical analysis of these principles and processes has just been made by Mr. E. H. Downey, special deputy, Pennsylvania Insurance Department, in an article appearing in the *Journal of Political Economy*.²

All insurance rates are made up of two factors: The "pure premium," or actual cost of benefits insured, and the "expense loading," or cost of insurance management.

Probably the greatest obstacle to the formulation of scientific insurance rates is the lack of accurate data as to compensation costs, therefore necessitating the introduction of conjectural factors.

The rates must be "prospective," and they must cover the full ultimate cost of the benefits insured against. * * * The pure premiums of competitive insurers, accordingly, are not the actual payments made, or even the actual costs incurred, during an insurance year, but the *expected* cost to be incurred within the period covered by the insurance contract. This expected cost is perforce estimated in advance of the insurance period and on the basis of past experience. Two elements of uncertainty are thereby at once introduced into the calculation. (1) The past, even the recent past, never exactly prognosticates the future. Not only are industrial

¹ Report upon the operation of the workmen's compensation law for the year ending Nov. 30, 1915, p. 14.

² E. H. Downey: The making of rates for workmen's compensation insurance. *The Journal of Political Economy*, December, 1917, pp. 961-983.

equipment, methods, and personnel forever changing, with consequent changes in the number and severity of work accidents; accident rates apparently are affected also by economic cycles of depression and prosperity. In many, if not most, industries changes in technique and personnel are so rapid that accident experience may be said to become obsolescent in five years' time, while cycles of business activity are so unpredictable that the experience of a series of favorable years may come to be applied to a year of abnormal risk, and vice versa. (2) For the reasons just stated it is only the experience of the recent past which can safely be relied on for rate-making, and the experience of the recent past always contains a large element of more or less uncertain future payments.

The large proportion of "outstanding" to total incurred cost would not seriously complicate the determination of pure premiums if the outstandings themselves could be accurately ascertained. Unhappily this is not the case. The cost of recent claims is uncertain because many cases of apparent temporary disability will develop into death or permanent disability. Even with respect to known fatal and permanent cases valuation is no easy matter. The present value of future payments for these cases is affected by both mortality and remarriage, neither of which factors can be satisfactorily measured from existing data.

Thus far it has appeared that compensation insurance rates are projected into the future upon the basis of past pure premiums which, in the nature of the case, will never be exactly reproduced by the future period to which these projected rates apply and which can not be accurately determined even for the past period from which the pure premiums are derived. The errors arising from both these sources are immensely aggravated by the subdivision of experience into industry classes. Some 1,500 of such industrial risk classes have grown up, for each of which a pure premium is to be established ostensibly on the basis of its own experience. Another difficulty arises because of the fact that American compensation laws are State, not national, in scope. Both the legal benefits and the spirit in which the laws are administered differ widely from State to State, and even from time to time within the same State, so that experience had under one jurisdiction or under one benefit scale can not directly be applied to any other. The 1,500 risk classes must accordingly be further split up into 30 or more State units.

Various attempts have been made to overcome the deficiency of exposure in the ultimate risk classes by grouping related classifications and by combining the experience of different States in the same classifications. Both methods enlarge the exposure at a more or less serious cost of homogeneity and thereby of dependability. The author discusses in detail the principles of combination in the two cases. For the purpose of reducing to a common denominator the pure premiums incurred under dissimilar benefits, rate-making committees have relied upon law differentials. The law differential, in this sense, is the ratio between the computed ultimate cost of compensation for 100,000 accidents in a hypothetical standard distribution (Rubinow Standard Accident Table) under the given scale of

benefits and the computed ultimate cost of the same accidents under the Massachusetts act of 1912. It is pointed out, however, that a flat law differential rests upon an assumption which is clearly contrary to fact—the assumption, namely, that the distribution of severity of work injuries is the same for all industries. A corrective for this uneven distribution may be had, however. This consists merely in the analysis of accident costs by severity of injury and the application of an appropriate differential to each injury group—deaths, permanent total disabilities, permanent partial disabilities, temporary disabilities. The difficulties in ascertaining accurate and reliable basic and State pure premiums are summarized by the author as follows:

The combined effect of prospective rates, full reserve premiums, over-refined risk classes, and flat State differentials, is to introduce a large measure of conjecture into the most fundamental of all rate-making data—the actual cost of insured benefits per unit of exposure. The basic pure premiums do not truly represent the reported experience and scarcely deserve the reliance actually placed upon them by rate-making committees. What is scarcely less serious, the reported experience itself even if correctly translated, is not a sufficient basis for prospective insurance rates, because (a) the exposure on many risk classes is wholly inadequate, (b) the outstanding liabilities may not have been correctly estimated, (c) the reported experience may not have covered the precise range of business which the risk class is intended to describe, and (d) the experience relied on may relate to a period of greater or less industrial activity, or of more or less effective accident prevention than that for which the rates are projected. Hence, in the actual process of rate-making, the calculated basic pure premiums are more or less modified by judgment, and a number of more or less conjectural loadings are introduced into the State multipliers.

The basic pure premiums, finally, whether selected or calculated, are translated into State pure premiums by means of multipliers which rest as much upon judgment as upon ascertained fact. (a) The least disputable of the factors entering into these multipliers are the State law differentials whose weaknesses were adverted to in another connection. (b) The law differentials themselves are graded in accordance with the age of the act in question, upon the theory that the cost of compensation progressively increases during the first few years' experience as accident reporting improves and workmen become better educated to their legal rights. (c) In the last rate revision, moreover, account was taken of the fact that the experienced pure premiums were derived from several years of normal or even subnormal industrial activity, whereas rates were to be projected for a period of unparalleled expansion. It was commonly believed that the excessive loss ratios indicated by immature experience for 1916 were somehow correlated with this sudden expansion of industry. There was no conclusive evidence of such correlation, much less any quantitative measure of increased accident cost per unit of pay roll, but the prevailing belief was borne out by certain partial tests and by the common knowledge that the speeding up of industry means more crowded plants, more driving of workmen, more overtime, a greater number of inexperienced employees, and less attention to accident prevention. On this somewhat dubious basis, then, a loading of 15 per cent was incorporated in the basic pure premiums to offset the supposed effect of increased industrial activity. (d) Logically antedating all the foregoing factors is an allowance of 2 per cent in the basic pure premiums themselves for underestimate of outstandings in the reported losses. It is doubtful whether any allowance under this head is justifiable in face of the sub-

stantial judgment loading already referred to; in any case, the percentage fixed upon implies a degree of accuracy in the determination of pure premiums which has not been, and is not likely to be, realized.

The author also analyzes the factors of expense and profits loading, catastrophe hazard, and concludes with a discussion of existing rate-making organizations.

REPORT OF NEW JERSEY COMMISSION ON OLD AGE INSURANCE AND PENSIONS.¹

In a report submitted to the governor of New Jersey in November, 1917, the commission on old age insurance and pensions, originally authorized in 1911, makes a strong recommendation for the passage of a workmen's health insurance bill adapted to New Jersey's needs. In the opinion of the commission, the conditions in the industrial world as affecting particularly the laboring class, since the United States entered the war, have accentuated the need for health insurance legislation, for it is imperative that the thousands who are entering industry for the first time, especially women with their greater susceptibility to sickness and with maternity functions to be considered, may enjoy the protection that comes with adequate health insurance legislation. As between provision for conserving the health of the people and making pension allowances to take care of the problem of old age poverty, the commission believes that "sickness, care, and prevention will assure greater returns to the State in the improved health and welfare of its citizens than a measure providing for the care of the aged." With this in mind the report deals primarily with a consideration of the sickness problem and measures for meeting it.

A survey of Trenton made in October, 1915, showed that 3.1 per cent of all persons 15 years of age and over were sick, and that 2.4 per cent of all persons were so sick that they were unable to work. Based upon these figures, the commission estimates that in New Jersey sickness causes an annual loss of 7.2 working days to persons 15 years of age and over, and that there are at all times 43,000 persons of 15 years and over who are so sick as to be unable to work. Further data is given showing that "New Jersey can not consider her health conditions satisfactory."

The close relation of industry to sickness is dwelt upon, especially the prevalence of occupational diseases among workers in potteries, smelters, tanneries, and the textile and hatting trades where lead poisoning and mercury poisoning and consumption, pneumonia, and other ailments induced by work in dust or humid atmosphere are

¹ Report on health insurance by the New Jersey Commission on Old Age Insurance and Pensions. Rahway [1917]. 20 pp.

found. It is also pointed out that wages have been so low that many wage earners and their families have not been able to obtain a sufficient income to permit a healthful standard of living, thus emphasizing what has been found to exist in many countries—a partnership between poverty and disease. Low wages of course have not permitted the accumulation of savings to provide against possible sickness. In 1,412 family problems which the bureau of associated charities of Newark undertook to solve during the year 1916, 42 per cent were needy because of sickness, not including disabilities due to industrial accidents nor such disabilities as arise from insanity, epilepsy, etc.

Taking up the matter of methods of insurance, the report notes briefly that stock companies “are expensive and few in number,” that mutual sickness benefit associations, while saving the heavy overhead costs of commercial insurance, are likewise few in number, only 20 being found among New Jersey’s 3,000 factories, and that the fraternal organizations are issuing very few exclusively sickness policies. They “fail to meet the situation satisfactorily, since they do not provide the kind of medical care needed and their rates, unfortunately, are frequently inadequate to provide permanently for the expected benefits.” As to the trade-union benefit plan it is stated that “in a State which is less than one-quarter unionized, and where but few of the unions grant sickness benefits, and few, if any, grant medical benefits, the trade-union funds can not be expected to develop immediately into a comprehensive system to cope constructively with sickness, care, and prevention as demanded by the present emergency.”

The report outlines briefly the provisions of sickness insurance plans in Europe and quotes from the reports of the United States Public Health Service, the Commission on Industrial Relations, and the Social Insurance Commission of California, to show the trend toward social insurance of this character. The attitude of various trade-union organizations in New Jersey, favoring the proposition, is noted; also the fact that industry is evidencing a desire to prevent time loss on account of sickness. Thus, an official of a large company employing thousands of workers, after a careful study of working time lost on account of both sickness and accidents, has said:

As in the case of accidents, when the man is absent another man must be supplied to take his place, and this increases both the labor turnover and the accident rate; in other words, it is a source of considerable loss to the company as well as to the man.
* * * Health insurance is now being urged in many quarters, and if it comes about we may expect a transfer of emphasis from accident to illness prevention.

The commission is of the opinion that health insurance is a measure which gives great promise both of relieving economic distress due to

sickness and of stimulating preventive action, and that to achieve these ends such a measure, adapted to New Jersey's needs, should be based on the following fundamental principles:

Existing health insurance agencies that are conducted on an adequate basis at actual cost should, with mutual management, be utilized in the further development of a comprehensive health insurance system. In order that the greater effectiveness and economy of a universal system may be enjoyed, health insurance should be made to cover all regularly employed wage earners. Insurance should provide medical care and health instruction in order that its work may be both curative and preventive. To minimize the financial distress attending sickness the system should provide a cash benefit during temporary incapacity for work. It should also provide maternity care to meet the special needs of working mothers. Health insurance should be democratically supported and managed by those directly concerned, the State bearing as its share the cost of general administration as it does in workmen's compensation. The system should be under supervision of a special bureau in the Department of Labor with competent medical direction and in close cooperation with existing public health agencies, in order to place added emphasis upon the extremely important problem of sickness prevention.

LABOR LAWS.

COMPULSORY WORK LAW OF NEW JERSEY.

Following the example of the legislature of West Virginia (see MONTHLY REVIEW, August, 1917, p. 350) and of Maryland (MONTHLY REVIEW, September, 1917, p. 525), a compulsory work law was enacted by the recent legislature of New Jersey as a war emergency measure. In its substantive features the New Jersey act more closely resembles that of Maryland than that of West Virginia, its scope being the same, i. e., able-bodied male residents of the State between the ages of 18 and 50 years, while the West Virginia law includes those between the ages of 16 and 60. Like the Maryland law, provision is made for employment on public works. Thirty-six hours per week is the minimum period of labor required, and maximum penalties are fixed at \$100 fine or three months imprisonment, or both. The possession of property or income is not a defense, nor is the claim of inability to obtain work, in the absence of a certificate from the commissioner of labor that proper application has been ineffectually made. The common wage in the occupation must be paid, and where inability to secure private employment appears, assignment and reassignment as necessary will be made to undertakings carried on by the State or any county or municipality thereof, or by private employers who accept the services of such persons.

The act is to be in effect whenever the governor of the State shall issue a proclamation determining general employment to be necessary and essential for the protection and welfare of the State and the United States. Law enforcement officers in general are charged with the duty of enforcing this law, while the commissioner of labor is authorized to appoint or employ, subject to the civil service provisions of the State, such employees as may be necessary to aid in carrying out the provisions of the act. Exemptions are made of persons temporarily unemployed on account of labor disputes, bona fide students during the school term, and persons fitting themselves to engage in trade or industrial pursuits. The act was approved February 15, to take effect immediately.

HOUSING AND WELFARE WORK.

HOUSING FOR WAR NEEDS BY THE DEPARTMENT OF LABOR.

Under a bill recently introduced in the House of Representatives (H. R. 10265) the Department of Labor is provided with a fund of \$50,000,000 with which to undertake the housing of workers engaged on work essential to the conduct of the war. The Secretary is authorized to acquire by purchase, lease, condemnation proceedings, or otherwise, such improved or unimproved land as he may consider necessary for the purposes in question. Authority is given to equip, manage, and maintain, alter, rent, lease, exchange, sell, and convey any such lands, houses, buildings, improvements, parts thereof or interest therein; and to aid in providing housing facilities by loans of money to any firm, persons, or corporation upon such terms or conditions as he may determine. The Secretary of Labor is also authorized to acquire by purchase or otherwise transportation and community facilities in connection with the housing undertakings.

The bill provides that the houses erected by the Government shall, whenever practicable, be of a temporary character. The services of the Supervising Architect of the Treasury in connection with the work are to be utilized whenever practicable.

In leases of land by the Government a clause is to be inserted for an option of purchase for an agreed price in each case.

No work under the terms of the bill shall be done under any percentage or "cost-plus" agreement, and full and complete itemized reports of all transactions in connection with the work shall be made to Congress at the beginning of each session, and a final report is to be made immediately after the declaration of peace.

While all authority to project new housing schemes under the bill terminates upon the conclusion of peace, power and authority to care for and rent property remaining undisposed of and to conclude and execute contracts for the sale of property made during the War are to continue until such period after the War as the Secretary of Labor may determine.

The necessity for the proposed legislation in question is thus set forth by the House Committee on Public Buildings and Grounds, which submitted its report on February 28.

The necessity for this legislation arises from the fact that all of the manufacturing and industrial plants existing in this country at the time of the declaration of war with Germany which could be useful for war purposes have been enormously expanded

and in addition very many more such plants have been established, and this expansion and growth have made it necessary that many, very many, thousands of additional workmen should be employed, and of course these workmen and their families must be housed. The administration, realizing and appreciating the fact that it was of the very highest importance that every plant engaged in the manufacture of arms and munitions and other war essentials should be expanded to the utmost, and should be kept constantly running at its highest productive capacity, and that this of necessity would require a tremendous increase in the number of industrial workers, caused the Committee on Labor of the Council of National Defense to make a survey of the problem in order to determine what could be done in the premises. This investigation disclosed an alarming condition. It was ascertained that good, skilled, competent workers could be had, but that in many cases houses could not be had, and therefore this vitally necessary work could not be performed as speedily as the exigencies of the situation demanded. Private capital could not or would not build on a scale to meet the demand, and therefore it became a governmental problem to house the labor which is absolutely necessary for the full development of our resources to successfully deal with the emergency confronting us.

* * * * *

Necessarily legislation of this character must lodge very broad discretion with those who are to administer it. It is a temporary expedient, and entirely new to our Government, and * * * can only be justified by the conditions now existing, but those conditions seem to us to imperatively demand its enactment.

HOUSING AND THE LAND PROBLEM.

The secretary of the committee on new industrial towns (New York City) in an article in the January, 1918, number of the Journal of the American Institute of Architects discusses the relation of the unearned increment in land to the problem of housing wage earners, and outlines a plan for the conservation of land values in housing developments which may be undertaken by the Government as a war emergency measure.¹

The housing problem is essentially a land problem, it is stated, and "no real solution of the problem of getting the vast majority of our population into attractive homes is possible unless we first solve the problem of the unearned increment which now banks up in front of economic progress, including housing progress, like snow before a snow plow." The growth of this unearned increment in land in two large company towns is cited. In Lackawanna, N. Y., the increment created by the Lackawanna Steel Co. has been placed at \$6,788,000; in Gary, Ind., at \$22,358,900.²

The way of escape from the evils of increasing land values lies in diverting those values to community uses through community land ownership. "The medium may be a nonprofit land company, the

¹ What is a house? By Richard S. Childs. Journal of the American Institute of Architects, Washington, D. C. January, 1918.

² These data are the results of studies made for the committee on new industrial towns, of which Mr. Lawson Purdy, of New York, is chairman.

conduct of which the future tenants may control—a private government, so to speak; or the Government. Either might earn a surplus but would have nothing to do with it save to distribute it in some kind of services among the tenants.”

In the case of an employer contemplating the erection of a company town for his employees the method of procedure is outlined as follows:

The company should buy land enough for the plant and the town, too, create a nonprofit land company, sell it the town site, and accept in return its first-mortgage bonds. The land company should plan the city, pave it, provide water and other utilities, stake out the building lots, determine which shall be business streets and residential streets, and establish a minimum cost of buildings in the various districts to protect the land values. It should lease, not sell, the land, fixing the rentals at a figure sufficiently low to keep the workers from going outside the tract to find homes. Unless the size of the future population can be definitely foreseen, rentals of business frontages should be adjusted every five years, to correspond with the growth of the population or, perhaps, of the factory pay rolls. Residential rentals could be made for fairly long terms—say 15 years—since such land values, even in a rapidly growing town, do not necessarily alter much. The employer, if it be destined to remain a one-industry town, would have to become a partner in housing operations in some round-about way, such as financing a building and loan association or helping with the financing of a housing corporation, in case private capital proves timid about building on leased land.

If the Government proposes to house munition and shipyard workers the plan of procedure would be the same in every way:

Let our Government create a housing corporation with an appropriation. Let it condemn the lands it needs, build the villages and cities that are required, and rent the houses during the war. Then, when the war industries have been readjusted to permanent peace conditions, let the Government write off the excess and emergency cost of its housing adventure as a cost of war and recoup the balance by selling the property, not to individuals but to local nonprofit land companies, to be operated for community revenue. Thus will be created communities that are the owners of their underlying lands, possessors of all present and future increments therein, and enjoying revenues a hundred per cent above those of ordinary towns of equal size.

The author estimates on the basis of the studies made of Lackawanna, N. Y., and Gary, Ind., that 4 per cent on the enhanced land values would be enough in time to replace the principal investment and still leave twice as much for community purposes as would be obtained from normal taxation.

CONDITIONS IN OHIO LABOR CAMPS.¹

The Industrial Commission of Ohio has recently issued a report of a preliminary survey covering living conditions in 108 labor camps containing a population of 7,172 at the time of the survey but having

¹ Preliminary survey of labor camps in Ohio. Bulletin of the Industrial Commission of Ohio. Vol. iv, No. 11. Department of Investigation and Statistics, Report No. 32. Columbus, Nov. 27, 1917. 22 pp.

a housing capacity of 11,349. The data in this report were collected in April and May, 1917, and cover 17 construction camps, 67 railroad camps, and 24 factory and mill camps. Although not stated, the inquiry appears to have been prompted by written and verbal complaints by laborers who have told of certain unsanitary features surrounding their mode of life or have referred to unfair contract or wage payment methods followed by proprietors. There was no attempt, it is stated, to make a study of wage and hour conditions or degrees of skill required for varying types of labor performed, the schedule providing chiefly for a sanitary survey.

The first important fact noted is the high percentage of labor turnover, indicated by the showing that in 39 camps, or 44.3 per cent of those for which information on this point was obtained, the laborers remained one month or less, and in 10 camps (11.4 per cent) the average length of residence was one day. It is intimated in this connection that a systematic practice of job selling,¹ indulged in by foreign "straw bosses" who can speak English and who victimize their fellow countrymen who can not speak English, is responsible for this high labor turnover.

Sleeping quarters were found to be greatly crowded, the beds being generally vermin infested, and the men being bunked under conditions which allow, on the whole, an inadequate per capita air space. For example, in railroad camps 2,877 men were allowed less than 300 cubic feet of air space each; only 100 were allowed over 500 cubic feet each.

The boarding service is furnished (1) by the companies, (2) by commissaries who bid for the concession, and (3) by the workmen themselves. In one-third of the camps inspected the board was furnished by commissaries. Charges for board were found to vary from \$3 to \$6 per week. The report does not comment on the quantity or quality of the food served but suggests considerable carelessness on the part of cooks and their helpers in the handling and preparation of the food. Washing facilities were in many instances not conveniently situated.

In commenting on the care of the sick the report states that the greater factory camps require physical examination and vaccination at the time of entrance and provide care during lost time resulting from both. Hospitals and contagious hospitals are provided with separate service for Negroes where any are employed. Construction camps carry their injured to a doctor or hospital but do not often assume much responsibility for the sick, while railroad camps sometimes send men home on paid transportation or to regular company

¹ This subject is dealt with more in detail in a report of the commission on "Job selling in industrial establishments in Ohio," which was noted in the MONTHLY REVIEW for October, 1916, pp. 1 to 5.

physicians. These camp laborers, it was found, are frequently attacked by pneumonia.

It seems to be the rule among these camps to withhold wages from one to two weeks. If a man is discharged he may secure his wages at once in most of the camps; if he quits he has to wait until the next pay day. Deductions from wages are made without itemization by 23 camps which require no receipt for the balance paid in cash, while 26 companies present slips showing total deductions and require signatures to same.

Based on the living conditions as found in these 108 camps, the report concludes with some definite suggestions by which sanitary conditions may be improved, bearing in mind the fact that perhaps 90 per cent of the camps are of a temporary nature, which makes it advisable to keep the financial burdens incident to improved conditions at a minimum. The suggestions are as follows:

General layout.—Well-drained site.

Water supply.—Satisfactory by frequent analysis. Sufficient in quantity. Stored in tightly covered receptacles from which drawn off by faucet.

Heat and light.—Sufficient to insure reasonable comfort.

Toilets.—One seat to 20 persons. Fly-proof construction. Sewer connections where available. In other cases containers emptied and cleansed regularly with lime, earth, ashes, crude oil, or other means of keeping down nuisance. Separate means designated by signs for use of women.

Kitchen and other wastes.—Covered metal containers for collection. Regular disposal by incineration, cesspool, burial, or as feed for chickens or hogs.

Stables.—At least 150 feet from other buildings. Frequent removal of manures or composting pits for their accumulation.

Bathing.—Provision in or near sleeping quarters of a place where warm water baths may be taken with reasonable frequency and privacy. Facilities for regular daily washing to be ample and in convenient location for use. Soap and towels to be furnished without charge.

Food supplies.—Screened storage places. Refrigeration for perishables. No goods open in stores to contamination.

Laundry.—Some means of to be provided in every camp.

Housing.—Floors must be kept in such repair that they may be kept sanitary. If built of wood, an under air circulation must be arranged. Roofs and sides must be rainproof. Windows and doors to be provided with screening and with necessary protection against intruders. No windows to be barred or fastened down in such a way as to prevent opening. Springs or coils for self-closing to be supplied on screen and other doors in all buildings.

No part partitions to be used in any new structures. Approximately 400 cubic feet of sleeping space to be allowed each person.

Separate dining and kitchen quarters to be maintained at a distance of at least 100 feet from sleeping quarters, wherever practicable. If both occur under same roof, means of communication between them to be kept carefully closed at all hours.

Bunks.—Preferably steel. No triple tiers except under unusually favorable conditions. Two-foot aisles between and not nearer than 1 foot to floors. No exchanges between men, and some number or tab system to prevent same.

Bedding.—Must be sufficient in quantity and in proper sanitary condition. Subject to destruction where found totally unfit for use. Where straw is used, it should be changed weekly.

Housekeeping practices.—Sweeping compounds should be used. Bunks and bedding and the cars or rooms in which they are kept should be thoroughly fumigated each week. Except in extreme severity of weather, windows in sleeping quarters and inside toilets should be kept open at both top and bottom at least four hours daily. Roller towels should give place to paper or other individual ones. Cooks and assistants should wear clean clothing while at work. Spittoons should be provided and kept cleanly.

Sickness.—Contagious disease should be at once reported to the proper authorities and patients so afflicted segregated until other arrangement is made. No person suffering from or convalescent from sickness to be allowed to handle foods.

Commissaries and company stores.—Discontinuance of practice of sleeping among supplies. Prices of all articles offered for sale to be plainly marked thereon. Itemized list of deductions to be rendered to workmen before statements of same are forwarded to paymaster.

Employment contracts.—Each laborer to receive written contract stating wage terms, transportation and other charges, and employment agency fee.

Central authority.—The responsibility for hygienic conditions and the justice of business practice in camps within the State shall be deemed to reside in those parties for whom the work is being done. No subletting of boarding, rooming, or other privilege shall alter this.

RURAL PLANNING AND DEVELOPMENT IN CANADA.

The commission of conservation of Canada late in 1917 issued the results of a study of rural conditions and problems in Canada by Thomas Adams, town planning adviser to the commission.¹ Social conditions in rural districts, land settlement policies, problems of the proper development and economic use of the land to secure the highest efficiency in industrial processes, health, convenience, and amenity are matters dealt with in the report. Consideration is also given to such specific problems as that, for example, of the settlement of returned soldiers and sailors upon the land. The study views the problems of land as fundamental and as closely related to the organization of labor and of the means of production.

Three reasons are pointed out for the prevalent uneconomic methods of using land:

First, the numerous ills caused by the holding of large areas of the best and most accessible land by speculators and the want of proper plans for the economic use and development of the land.

Second, the compelling social attractions and the educational facilities of the cities and town; and

Third, the lack of ready money and of adequate return for the labor of the farmer, because of want of cooperation, rural credit, and of facilities for distribution of his products. To secure any real improvement in rural life and conditions, we must try

¹ Commission of conservation, Canada. Rural planning and development; a study of rural conditions and problems in Canada, by Thomas Adams, town planning adviser, commission of conservation, Ottawa, 1917. 281 pp.; illus.; plates; plans.

to bring tracts of land held for speculative purposes into use, prepare development schemes of the land in advance of settlement, try to take part, at least, of the social and educational facilities of the cities into the rural areas, and simultaneously provide the cooperative financial and distributive conveniences that are necessary to give the farmer a larger share of the profits of production.

There are two tendencies developing in Canada which favor the practicability of the proposals suggested. First, there is the increase in the relative number of towns and villages in the rural districts where small manufacturing industries are springing up, and, second, there is the tendency of large manufacturers to move from large urban centers to rural and semirural districts. This process of industrial decentralization indicates the practicability of artificially promoting industrial village centers and rural industries. Unorganized, the movement of decentralization has meant harm to production, as it has been accompanied by the worst forms of speculation and bad sanitary conditions. "Properly organized, however, the movement should help to increase production by bringing consumer and producer nearer to each other, and if proper planning regulations were made and enforced, unhealthy land speculation and improper sanitary conditions in connection with these new developments would be prevented."

There has, however, been no proper planning of rural and urban areas in Canada. The present rectangular system of survey is not a method of planning land, but only a basis on which to prepare planning and development schemes. No stereotyped planning is adequate and regard must be had to the physical and economic conditions of the territory to which they apply, and all planning should be made for the general purpose of securing conditions of health, amenity, convenience, and economic use of the land. Such a system of planning requires adequate surveys and classification of the land.

Equally as important as land planning is the planning of roads and other transportation arteries.

Underlying the defects of methods such as the above are those conditions which favor speculation in land. Instances are cited from Canadian experience and that of other countries showing how speculation has caused absentee landlordism, idleness of fertile and accessible areas, and inflated land values, all of which in the long run tend to impair the value of real estate as an investment. It has also impaired the producing value of the land, withholding it from profitable agriculture, in the view of the report. Land speculation, too, has intensified the factors producing high prices and unemployment.

The report looks at the situation in a broad way and emphasizes the fact that while the planning of land for its proper use and development is important, to be effective in the accomplishment of results other measures must accompany it, as for example, improved edu-

cational methods, cooperation in production and distribution, rural credit system, and creation of rural industries. Altogether five principal problems require attention: First, improvement in national, provincial, and rural land policy and administration; second, making of rural surveys, preparation of details, topographical maps, and reports on rural conditions; third, proper system of planning land to serve the highest interests of health, convenience, and economic use; fourth, creation of agricultural and industrial settlements, free of artificial pressure and on sound economic lines; fifth, formulation of a policy of adjustment to conditions after the war, particularly in relation to the problem of the returned soldier.

Some of the more significant paragraphs concerning the suggestion to create agricultural and industrial settlements as a means to securing a greater comparative well-being may be quoted.

Agricultural and industrial settlements should be organized on carefully selected sites, suitable for development on sound economic lines.

Purely agricultural settlements should only be developed on fertile and improved land, having good transportation facilities and accessibility to markets.

New town settlements (garden cities) should be established where there are good facilities for profitable production and distribution, where manufacturing and intensive farming can be successfully carried on, and where advantage can be taken of the tendency to remove industries from crowded centers to rural districts or to establish new industries near water powers and raw materials.

Government capital or the guarantee of bonds should be made available for these settlements and should be made repayable at a fixed annual rate to cover principal and interest; the benefit of all profits derived in excess of that rate should be spent on improving the settlements.

The increment of land values created by the conversion of cheap agricultural land into a valuable town site gives to the garden city class of development a special financial stability which is not possessed by the agricultural settlement.

For the purposes of agricultural settlements, a county, or counties, in old territory and a few townships in new territory should be taken and an attempt made to apply the best kind of organization and scheme of development that can be devised for each. The capital provided for such schemes should be ample in amount, but as little as possible of it should be given in the nature of a subsidy. A properly conceived scheme should pay its way.

The recommendation that industrial, or partly industrial and partly agricultural, town settlements be established is apt to be regarded with suspicion by practical men because of its novelty. That novelty has now worn off in England and garden cities and suburbs are no longer looked upon as visionary schemes.

One of the main objects in carrying out the suggestion to create combined agricultural and industrial settlements would be to provide opportunities for the employment of returned soldiers in varied kinds of productive enterprises in both rural and urban areas.

These settlements would also be invaluable as a practical demonstration of town building and land development. Social progress in England during the last 15 years has been greatly influenced as a result of the one experiment in industrial development and housing which has been carried on at Letchworth.

Before initiating any comprehensive policy to establish new centers of population it might, however, be more prudent to begin by developing one new manufacturing and agricultural town, where systems of rural and urban land development could be tried out, where opportunities for varied kinds of employment could be provided, where the strength and weakness of different methods could be tested, and where there could be evolved, by a process of practical experience, the soundest economic principles on which development should be guided in the future.

HOUSING SHORTAGE IN GERMANY.

Two extensive inquiries on the housing question in Germany were made during the past year, one by the imperial statistical office (division for labor statistics),¹ the other by the Central Welfare Bureau,² of Berlin. These two investigations show that there is an actual shortage of housing accommodations in Germany and that this shortage will probably be aggravated after the War.

The survey made by the imperial statistical office shows a considerable decline in building activity, as brought out in the following table:

BUILDING ACTIVITY IN 45 CITIES IN GERMANY.

Year.	Number of houses built.	Number of apartments in the houses.
1912.....	9,507	64,107
1913.....	7,581	47,817
1914.....	6,286	34,475
1915.....	2,589	13,646
1916.....	1,009	5,015

These figures show that in 1916 only one-ninth as many houses were built as in 1912 and only one-twelfth as many apartments. Generally speaking, only in cities such as Essen, for example, where the conditions created by the War necessitated immediate extension of housing accommodations, has there been any considerable number of new houses erected.

The report of the imperial statistical office is based on inquiries made of 91 cities of over 50,000 inhabitants each. In 64 of these cities the net increase in houses in 1916 is considerably less than in 1915. In the matter of small dwellings 33 cities sent in returns suitable for comparison, and of these, 4 show an increase and 29 a decrease in the number of such dwellings as compared with 1915.

The survey further reveals a considerable decrease in the number of unoccupied dwellings resulting from increased pressure upon housing accommodations.

¹ Reichs-Arbeitsblatt. Supplement 14. Beiträge zur Wohnungsfrage während des Krieges. Berlin, 1917.

² Concordia. Zeitschrift der Zentralstelle für Volkswohlfahrt. Berlin, 1917. Vol. 24, Nos. 14, 15, 17, 18.

Of 34 cities sending in returns which can be compared with those of former years, 7 show an increase in the number of unoccupied dwellings, but 27, on the other hand, a decrease. According to these statistics the highest percentages of unoccupied small dwellings are shown by the following cities: Aix-la-Chapelle, 8.2; Altona, 6.8; Barmen, 6.7; Berlin, 6.2; Hamburg, 6.1; Augsburg, 5.7; Frankfort on the Main, 5.3; Crefeld, 4.6; Recklinhausen, 4.6; Buer, 4.5; Bonn, 4.3; Dusseldorf, 4.3; Neukoln, 4.0. The lowest percentage of unoccupied small dwellings was shown by much the same towns as had the lowest percentages of unoccupied dwellings of all kinds, viz, Essen, 0.2; Erfurt, 0.2; Kiel, 0.3; Brandenburg, 0.3; Lubeck, 0.5; Königsberg, 0.6; Stettin, 0.7; Magdeburg, 1.0; Karlsruhe, 1.2; Muhlheim on the Ruhr, 1.2; Ludwigshafen, 1.2; Linden, 1.4; Hildesheim, 1.4; Halle, 1.5; and Bremen, 1.7.

The statistical office sums up the results of its inquiry in these words: "In contradistinction to the first two years of the War the number of unoccupied dwellings has decreased in the great majority of cities, so that 1916 has witnessed a complete and sudden change in the development of the housing situation. While there is no reason whatever to fear a general shortage of dwellings after the War, the situation is nevertheless very unfavorable in an extraordinarily large number of communities, and the danger of a grave scarcity of dwellings must not be underestimated."

A census of unoccupied dwellings conducted in 1916 in Westphalia by the Westphalian Small Dwellings Association tends to show that in the case of four-room dwellings the danger of scarcity is the greatest. The imperial statistical office comments on that inquiry as follows: "Though it is true that there is no danger of a general scarcity of dwellings after the War, nevertheless, in a large number of communities in Westphalia, the situation requires careful watching, and in several communities there is great probability of a scarcity of small dwellings after the War."

These results are confirmed by the report of the Central Welfare Bureau of Berlin, based upon replies from 809 cooperative building societies. The percentage of building societies reporting that even at the present time there is a scarcity of small dwellings is between 35 and 45 per cent, and it must be borne in mind that the figures given by these societies are based on experiences in the larger cities. Especially in cities of more than 100,000 inhabitants a scarcity of small dwellings is reported to be existing. About 60 per cent of the building societies anticipate a scarcity of small dwellings after the War. Furthermore a large number of those societies which deny the present existence of a scarcity of dwellings expect such a scarcity after the War. Especially in towns of from 50,000 to 100,000 inhabitants and over, a dearth of small dwellings is expected by over 90 per cent of the societies reporting.

INDUSTRIAL ACCIDENTS AND DISEASES.

TREND OF ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY TO END OF 1917.

In the MONTHLY REVIEW for November, 1917 (pp. 13-22), were published tables and comment showing the trend of accident frequency in the iron and steel industry from 1913 into the period of war activity in 1916 and 1917.

It is now possible to extend these tables to the end of 1917. They are accordingly here presented. Complete tables and discussion will appear in Bulletin 234, now in press.

TABLE 1.—FREQUENCY RATES OF FATALITIES AND OF ALL ACCIDENTS IN THE IRON AND STEEL INDUSTRY, DECEMBER, 1913, TO DECEMBER, 1917.

Year ending with—	Number of 300-day workers. ¹	Fatal- ities per 1,000 300- day workers.	Total accidents per 1,000 300-day workers.
December, 1913.....	153,098	1.34	181.0
March, 1914.....	146,522	1.29	168.4
June, 1914.....	137,816	1.09	154.7
September, 1914.....	128,023	.81	138.9
December, 1914.....	117,214	.70	130.4
March, 1915.....	111,881	.63	118.0
June, 1915.....	111,794	.65	114.0
September, 1915.....	117,933	.85	118.6
December, 1915.....	133,627	.86	124.5
March, 1916.....	148,221	.96	131.8
June, 1916.....	160,819	1.09	134.1
September, 1916.....	168,790	1.02	135.5
December, 1916.....	175,013	1.11	133.2
March, 1917.....	178,937	1.15	128.5
June, 1917.....	182,587	1.08	121.6
September, 1917.....	185,445	1.11	110.9
December, 1917.....	186,357	.98	103.4

¹ A 300-day worker is the equivalent of one who works 10 hours per day for 300 days.

TABLE 2.—FATALITY RATES IN PLANTS PRODUCING SPECIFIED PRODUCTS,
DECEMBER, 1913, TO DECEMBER, 1917.

Year ending with—	Fatality rates per 1,000 300-day workers in plants producing—					
	Fabri- cated products.	Sheets.	Wire products.	Tubes.	Miscel- laneous steel products, group A.	Miscel- laneous steel products, group B.
December, 1913.....	0.62	0.70	0.86	0.58	1.84	1.50
March, 1914.....	.64	.78	.61	.61	1.86	1.48
June, 1914.....	.57	.59	.31	.50	1.77	1.22
September, 1914.....	.49	.44	.24	.45	1.30	.83
December, 1914.....	.49	.20	.04	.45	1.21	.87
March, 1915.....	.56	.27	.09	.43	.89	.95
June, 1915.....	.60	.38	.27	.38	.67	1.34
September, 1915.....	1.05	.43	.47	.57	.82	1.44
December, 1915.....	1.01	.48	.48	.55	.88	1.42
March, 1916.....	1.07	.58	.71	.53	1.11	1.12
June, 1916.....	1.09	.64	.76	.48	1.42	1.22
September, 1916.....	1.01	.60	.68	.35	1.45	1.11
December, 1916.....	1.17	.65	.83	.33	1.63	1.19
March, 1917.....	1.11	.60	.89	.33	1.63	1.33
June, 1917.....	1.29	.51	.76	.40	1.44	1.33
September, 1917.....	1.17	.61	.78	.36	1.57	1.52
December, 1917.....	1.09	.42	.64	.41	1.35	1.44

TABLE 3.—TREND OF ACCIDENT FREQUENCY RATES DECEMBER, 1913, TO DECEMBER, 1917, IN PLANTS PRODUCING SPECIFIED PRODUCTS AND ON INDUSTRIAL RAILWAYS.

Year ending with—	Frequency rates per 1,000 300-day workers in plants producing—							Industrial railways.
	Fabricated products.	Sheet.	Wire.	Tubes.	Miscellaneous steel products, group A.	Miscellaneous steel products, group B.	Total for specified products.	
December, 1913.....	300.9	184.9	177.9	81.5	212.8	123.1	181.0	.....
March, 1914.....	263.6	173.0	159.4	67.4	205.8	116.7	168.4	.....
June, 1914.....	226.6	161.0	152.9	57.2	188.3	100.0	154.7	.....
September, 1914.....	189.5	142.1	143.9	45.0	167.1	88.1	138.9	.....
December, 1914.....	176.9	141.5	138.6	37.5	152.0	82.7	130.4	.....
March, 1915.....	164.9	135.4	131.0	30.7	130.4	81.3	118.0	.....
June, 1915.....	153.6	125.3	132.9	26.1	128.1	69.9	114.0	.....
September, 1915.....	156.7	115.5	149.8	30.0	140.3	61.3	118.6	.....
December, 1915.....	160.4	111.8	157.2	32.3	155.8	69.0	124.5	108.4
March, 1916.....	158.3	111.8	159.9	34.9	179.3	75.9	131.8	117.5
June, 1916.....	163.6	109.4	156.5	36.7	188.2	81.0	134.1	131.5
September, 1916.....	160.4	107.2	149.2	36.7	200.1	86.2	135.5	145.9
December, 1916.....	156.2	102.0	144.5	37.1	202.7	84.6	133.2	153.9
January, 1917.....	158.7	102.3	141.4	36.1	201.5	82.1	131.7	155.7
February, 1917.....	159.3	100.9	139.1	36.2	199.6	79.7	130.1	157.5
March, 1917.....	161.9	99.4	136.6	35.6	196.4	78.5	128.5	157.1
April, 1917.....	162.8	96.8	135.1	34.8	193.9	77.4	126.7	156.2
May, 1917.....	161.9	96.5	132.6	34.6	190.9	76.0	124.7	157.8
June, 1917.....	159.8	97.0	127.7	34.6	186.7	73.4	121.6	157.3
July, 1917.....	159.2	100.8	123.0	33.2	180.5	70.6	118.2	153.7
August, 1917.....	158.2	104.6	118.6	32.2	173.7	67.5	115.0	153.7
September, 1917.....	158.1	102.5	111.5	31.7	167.4	65.4	110.9	150.5
October, 1917.....	157.6	102.7	108.1	31.2	162.6	63.1	108.6	147.6
November, 1917.....	159.5	101.5	101.7	30.8	158.8	61.9	105.9	146.6
December, 1917.....	154.0	101.7	97.5	30.5	154.0	61.4	103.4	146.9

NUMBER OF 300-DAY WORKERS.

June, 1914.....	8,817	16,841	25,575	19,944	41,744	18,922	137,816	.....
June, 1915.....	6,706	15,759	22,434	13,329	35,670	13,477	111,794	122,240
June, 1916.....	8,276	21,906	31,377	21,031	45,673	23,000	160,819	16,690
June, 1917.....	10,110	25,504	32,928	24,880	49,893	27,046	182,587	17,740

¹ December.

INDUSTRIAL ACCIDENTS IN MASSACHUSETTS.

One outstanding feature of the Fourth Annual Report of the Massachusetts Industrial Accident Board for the year ending June 30, 1916,¹ recently issued, is the large increase in the number of accidents reported to the board during the year as compared with each of the three preceding years that the compensation act has been in force. During the fourth year the number of nonfatal injuries was 135,257—an increase of 43 per cent over the third year and of 50.8 per cent over the first year of the act. The number of fatal accidents reported was 463, or an increase of 25.1 per cent over the number reported during the preceding year. In classifying these injuries the board has changed the policy followed in previous years by adopting the definition of tabulatable injuries recommended by the Inter-

¹ Massachusetts, Industrial Accident Board. Fourth annual report, including statistical information and tables on the experience for the year, a comparison of frequency and nature of injuries for four years, and general information on different phases of the compensation act. July 1, 1915, to June 30, 1916, inclusive. Public document No. 105. Boston, 1917. 272 pp. Illustrated.

national Association of Industrial Accident Boards and Commissions,¹ and the statistics in the current report are presented accordingly. This definition is as follows:

All accidents, diseases, and injuries arising out of the employment and resulting in death, permanent disability, or in the loss of time other than the remainder of the day, shift, or turn on which the injury was incurred should be classified as "tabulatable accidents, diseases, and injuries," * * *

Under this definition, 67,717 nonfatal and 463 fatal accidents are tabulated, the number of nonfatal accidents being an increase of 37.1 per cent over the number of tabulatable injuries during the preceding year. Of the 67,717 nonfatal injury cases, 61,116 persons (90.3 per cent) were employed by employers carrying compensation insurance, and of the 463 fatal cases, 366 (79 per cent) were employed by employers carrying compensation insurance.

Taking up the fatal accidents, the following facts appear in the report: The largest number, 30.7 per cent, occurred in road, street, and bridge transportation, while classified by causes the largest number, 18.6 per cent, was due to falls. In about 64 per cent of the fatalities dependency was total within the meaning of the compensation act, while in 17.3 per cent there were no dependents. Most of those who died, 279, or 60.3 per cent, were married, and the greatest frequency was in the age groups 21 to 29 and 40 to 49 (22.5 per cent and 22.9 per cent, respectively). Returns from insurance companies transacting compensation business indicate that payments were made in 340 fatal cases, the compensation paid and outstanding in such cases being \$885,040.48. The same returns indicate total medical payments amounting to \$834,804.52, but how much of this is chargeable to fatal cases is not shown.

A somewhat different showing is made both as to industries affected and causes in the case of tabulatable nonfatal injuries. Thus the largest number of such injuries (19.2 per cent) occurred in the iron and steel industry, and the cause of most of the injuries (29.1 per cent) was hand labor. As to duration of total disability in these cases, 49.3 per cent were incapacitated for 10 days or less and were therefore not compensable. As to "specified injuries" (injuries for which compensation is payable in addition to that for disability), 928 (69.6 per cent) of the 1,334 so classified involved one finger. It is estimated that these specified injuries entailed an additional benefit cost per year of approximately \$150,000. Tables giving the weekly wages received by injured employees indicate that 61.7 per cent were in the \$8.01 to \$15 wage group.

Reports from insurance companies as to benefits paid show that of the nonfatal cases, 65,779 received medical services only, 3,887 received compensation only, 23,819 received both medical services

¹ See MONTHLY REVIEW for October, 1917, p. 133.

and compensation, and that the total amount of medical payments made and outstanding was \$834,804.52, while the compensation paid and estimated as outstanding amounted to \$3,252,146.97.

Of the 135,257 cases reported to the board, 2,029, or 1.5 per cent, were occupational diseases, for which, in Massachusetts, compensation may be paid. Of this number, the duration of 1,351, or about 2 per cent, of the tabulatable injuries, was more than one day. Twenty-six of these were fatal. In making comparison between the time loss and the wage loss on account of occupational disease on the one hand and nonfatal tabulatable injuries on the other, the report says:

The total number of days lost in nonfatal tabulatable cases of occupational disease is 31,333, an average of 23.3 days per case. The total amount of wages lost in these cases was \$70,154, an average of \$51.93 per case. The total amount of wages lost in all nonfatal tabulatable cases was \$3,353,872, an average of \$49.52 per case, and the average duration was 27.07 days per case.

The following table shows the number of fatal and nonfatal cases of diseases of occupation, together with the time loss and the wage loss in nonfatal cases:

NUMBER OF PERSONAL INJURIES BY DISEASES OF OCCUPATION, SHOWING DAYS LOST AND AMOUNT OF WAGES LOST IN NONFATAL CASES.

Occupational disease.	Number of fatal cases.	Nonfatal cases.		
		Number.	Days lost.	Wages lost.
Harmful substances (causing constitutional disturbances):				
Brass.....		1	4	\$9
Dusts.....		5	60	72
Gases, vapors, and fumes.....	10	76	1,118	2,138
Hides (anthrax).....	5	20	814	1,645
Lead.....	3	49	3,063	7,645
Harmful conditions:				
Compressed air.....	4	383	7,734	21,018
Extreme cold.....	2	77	2,402	5,054
Extreme heat.....	2	74	622	1,420
Eye strain.....		7	164	411
Strain, fatigue, cramp, faulty positions, "occupational neuroses," blows, vibration, pressure, etc., causing injuries to nerves, muscles, and bones.....		84	4,194	9,764
Miscellaneous.....		4	162	521
Irritant fluids and substances (causing local affections):				
Brass.....	21	600	1,203	
Cement.....	4	97	203	
Chrome.....	16	269	379	
Cyanide and plating solutions.....	10	123	261	
Dyes.....	32	1,023	1,497	
Hides.....	14	352	579	
Lime.....	51	580	1,091	
Oil.....	48	514	967	
Paint.....	4	340	700	
Poisonous vines, trees, shrubs, etc.....	45	981	2,163	
Raw wool.....	8	104	166	
Washing and cleansing fluids.....	15	198	242	
Local irritation from constant vibration, blows, pressure, etc.....	132	2,234	3,820	
Miscellaneous.....	171	3,576	7,187	
Total.....	26	1,351	31,333	70,154

The report does not indicate the compensation or other expenses incurred by reason of these occupational diseases.

EFFECTS OF DUST INHALATION UPON WORKERS IN THE MANUFACTURE OF SILICA BRICKS.

Under authorization of the chief inspector of factories of Great Britain an investigation was made of the incidence of respiratory diseases due to the inhalation of dust among workers employed in the manufacture of silica bricks and other refractory materials used in furnaces, with a view to ascertaining the desirability of extending to ganister¹ and silica brick works, under the Factory and Workshop Act, 1901, the regulations which have been applied to ganister mines to lessen the dust production. It seems that when the "Regulations for ganister mines" were made effective an interpretation of the word "mines" rendered the regulations inoperative so far as concerned any works in connection with ganister mines at which the mineral is treated and used in such manufacturing processes as the making of silica bricks, or ganister bricks, ground ganister, silica paint, etc. The investigation was completed during the summer of 1917, and on August 14 a report was submitted to the chief inspector of factories.² It appears from a description of the processes in the manufacture of silica bricks that the ganister or silica rock as received from the mine or quarry consists of large blocks of stone which have to be reduced to small fragments before the material can be molded into bricks. This is accomplished by means of a stone-breaking machine, and in the process from 1 to 3 per cent of lime in the form of powdered lime or hydrated solution of lime is added to the crushed ganister while it is being ground, the resulting product, of the consistency of mortar, being discharged on the floor of the brick-making shed, where it is tempered to some extent with shovels and then molded by hand into bricks. After the bricks are dried they are set in the kilns and burned at a temperature rising to 3,000° F., or slightly over, for several days.

In the crushing process, even though the stone is wetted, a large quantity of dust is generated and the men employed in feeding the machines are subjected to a serious dust hazard. But perhaps even more serious is the hazard encountered by those men who are required to break up with hammers the lumps of stone which are too large to enter the jaws of the crushers. This operation is productive of fine smoke-like dust which is liable to be inhaled to some extent by the hammer men even if the work is done in the open air. Much of the

¹ Ganister or silica stone is a quartzite rock found in England beneath the lower coal measures and above the millstone grit, in seams which seldom exceed 4 feet in thickness. It is used in the manufacture of highly refractory bricks and linings required for steel and other furnaces, and its value as a refractory material is due to its high percentage of silica and low content of the alkalis. Other substances similar in chemical composition and refractory properties, e. g., firestone, silica rock, bastard ganister, quartz, chert, flint, and silica sand are in some cases used in its stead.

² Great Britain. Home Office. Report on the manufacture of silica bricks and other refractory materials used in furnaces, with special reference to the effects of dust inhalation upon the workers. London, 1917. 16 pp.

work, however, was found to be carried on in closed or partly open sheds in the air of which the dust remains suspended. In some plants the investigation disclosed that certain precautions had been taken to minimize or prevent the dust hazard—the use of water spray or steam jets, covered receptacles for the crushed rock, exhaust fans, and dust collectors. A considerable amount of dust was also noted in some works at sidings where the bricks are loaded into trucks previous to dispatch from the works.

As showing the incidence of lung diseases due to silica dust inhalation, the situation in the neighborhood of Kidwelly, South Wales, where the only bricks made are silica bricks, is presented, revealing the fact that during eight years, among an average of not exceeding 60 workers, there occurred 18 deaths from phthisis and 8 deaths from other diseases of the lungs—a mortality from phthisis of 37.5 per 1,000 men, and from all other respiratory diseases, a mortality of 16.7 per 1,000, or a death rate from respiratory diseases alone of 54.2 per 1,000. The following table presents these figures in comparison with similar data covering all males in England and Wales, and those engaged in the manufacture of bricks, plain tile, and terra cotta, indicating the relatively high risk assumed by those who make silica bricks.

MORTALITY AMONG SILICA BRICK MAKERS IN THE KIDWELLY DISTRICT, SOUTH WALES, AS COMPARED WITH MORTALITY AMONG ALL MALES IN ENGLAND AND WALES, AND THOSE ENGAGED IN MAKING BRICKS, PLAIN TILE, AND TERRA COTTA.

Class.	Age.	Period.	Death rate per 1,000 from—		
			Phthisis.	All other respiratory diseases.	All causes.
All males (England and Wales).....	15 years and over	1900-1902	2.1	2.8	16.3
Brick, plain tile, terra cotta makers.....	do.....	1900-1902	1.0	2.1	10.4
All persons (Kidwelly).....	All ages.....	1909-1913	1.3	(¹)	17.0
Silica brick makers (Kidwelly and district).	Adults.....	1905-1912	37.5	16.7	(¹)

¹ Not reported.

Although the total number of deaths among silica brick makers upon which the death rates are calculated is small, the death rate from lung diseases, especially from phthisis, is sufficiently excessive to justify the conclusion that the occupation of making silica bricks is attended with a serious mortality from respiratory diseases among those employed, and that this mortality is far in excess of that suffered by males in general, by the population among whom they live, and by makers of ordinary bricks from plastic clay.

The report points out, however, that the influence of silica dust in favoring tuberculosis infection is modified when the silica is mixed with certain clays.

Ganister or other stones containing a high percentage of free silica are mixed with clay sufficient for binding purposes in the manufacture of certain refractory bricks and

other articles; and stone is added in varying proportions to fireclay to increase its refractory properties, or to modify or reduce the amount of shrinkage when subjected to high temperatures. During this inquiry no history has been obtained, up to the present, either from workers or occupiers that a high mortality from phthisis is experienced by those employed in the manufacture of such articles containing clay as an admixture.

Some suggestions are made to effect the prevention of dust inhalation. Chutes to guide the stones into the crusher jaws and obviate the necessity of having men at that point are mentioned; the use of the water spray or steam jet playing into the jaws of the crusher has already been referred to. Where this latter is not practicable the provision of a powerful exhaust draught induced by a suitable fan and properly constructed hood placed above the crusher jaws may be employed. The installation of an exhaust ventilation plant, it is suggested, must also include the provision of efficient dust-collection appliances such as textile filters, cyclone collectors, water tanks, or chambers fitted with water sprays. Where hand breaking of the stone is carried on it is recommended that suitable respirators be worn, but this expedient may be avoided "by the installation of an additional powerful stone-breaking machine, with jaws specially set for dealing with large blocks." The inhalation of the dust which is present after the bricks have dried, and which is set in motion by the removal of the bricks, may be largely prevented by careful wet sweeping.

The recommendations and suggested code of regulations submitted as a result of the investigation and which, owing to greatly increased production of refractory goods, it is estimated will apply to approximately 100 factories employing about 5,000 workers, are as follows:

We recommend that the manufacture of silica bricks and the crushing, grinding, and sieving of silica should be certified as dangerous under section 79, Factory and Workshop Act, 1901; and, further, that regulations should be made under section 79 to apply to all factories and workshops, or parts thereof, in which any of the following processes are carried on: The manufacture of silica bricks; the crushing, grinding, and sieving of silica.

Suggested code of regulations.—In these regulations silica means material containing not less than 80 per cent of silica (Si O_2), and includes ganister, silica stone, bastard ganister, firestone, quartz, quartzite, flint, chert, gritstone, and sandstone.

Silica brick means any brick composed of silica, bonded with lime, or any "ganister brick," bonded with clay, and containing not less than 80 per cent of silica (Si O_2).

1. No silica shall be broken in pieces by manual labor unless the process is carried out in the open air.

2. No silica shall be crushed or ground in a stone-breaking machine or a grinding machine unless such machine (a) is provided with an exhaust draught and efficient dust-collecting appliances, so arranged as to prevent the escape of dust into the air of any place in which work is carried on; or (b) is provided, and kept provided, with an efficient water or steam spray or other arrangement to prevent the escape of dust into the air; or (c) is so entirely inclosed as to prevent the escape of dust into the air.

3. All elevators, screens, and sieves used for manipulating silica shall be so entirely inclosed as to prevent the escape of dust into the air, or be provided with an exhaust draught so arranged as to prevent such escape of dust.

4. The floors of all places where silica bricks are dried shall, after each lot of bricks has been removed, be carefully freed from all débris by a moist method. Provided, always, that this regulation shall not apply to the floors of tunnel driers.

5. No drying stoves in which bricks are baked by fires before being placed in the kilns shall be used after January 1, 1923, unless the chief inspector of factories shall certify in writing that, in his opinion, the use of such stove involves no danger to the health of the persons employed therein. Provided, always, that this regulation shall not apply to tunnel driers.

6. The use of silica dust or powder for dusting the molds in brick making shall be prohibited.

7. There shall be provided suitable respirators for the use of all persons employed in (1) breaking silica into pieces by manual labor, unless wet brattice cloth is properly used to prevent escape of dust in this process; (2) placing or removing bricks from drying flats, and drying stoves, other than tunnel driers; and (3) setting or drawing silica bricks in kilns; which respirators, when required for such use, shall be washed or renewed at least once every day.

8. When placing or drawing silica bricks in kilns no person shall throw the bricks to another.

9. No person shall work or cause or allow to be worked any stone-breaking machine unless such machine complies with the requirements of regulation 2.

10. Every person for whose use a respirator is provided in pursuance of regulation 7 shall wear the respirator while employed in any process to which regulation 7 applies.

EYE HAZARDS IN INDUSTRIAL OCCUPATIONS.

The large number of eye injuries occurring each year to workmen in industrial occupations is a source of much concern to employers and to safety engineers, especially since most of the minor injuries and many of the serious injuries, each due to an accident or to infection resulting in the loss of one or both eyes, are preventable. Although definite and systematic efforts are being made in many plants to educate employees in the use of safety appliances for the protection of the eyes, the fact remains that even in these plants some workmen will not use the devices because of inconvenience unless the requirement is mandatory, and where no safety rules are in force workmen are either ignorant of the eye hazards existing in their employment or do not fully appreciate the terrible risk they are taking in working without properly protecting their most important members. Owing to the lack of uniformity in reporting, it is not possible to state with any degree of definiteness the actual number of eye injuries occurring in the course of a year in the industries of the United States. In many of the States such information is available and published reports for the year ending June, 1917, record 59,436 eye accidents, or approximately 8.3 per cent of

the 710,571 industrial accidents reported by these States.¹ This statement appears in connection with a tabulated digest of available statistics on eye accidents in United States industries published in a pamphlet entitled "Eye Hazards in Industrial Occupations," issued in November, 1917, by the National Committee for the Prevention of Blindness.² The pamphlet is the outgrowth of a survey made between August 8 and November 8, 1916, of representative industries in the city of Buffalo to ascertain the local working conditions and the industrial accident hazards which might be productive of eye injuries. Seventy plants employing 35,000 workers and covering a wide range of operations were studied. The attitude of employers and workmen alike toward the need for eye protection in any process, or toward the use of the protective features, was made the subject of special inquiry. Much of the report is taken up with a description of the various operations hazardous to the eyes, with recommendations for the installation of protective devices or for such changes in working conditions, lighting arrangements, etc., as will prove effective in reducing or completely eliminating the preventable industrial accidents to eyes. The wearing of goggles is almost uniformly recommended. It was found that the various hazards to the eyesight of industrial workers are found chiefly in the following industries and occupations: The manufacture of iron and steel; machine operations; chipping; grinding and polishing; riveting; welding and cutting; mining and quarrying; occupations in which there is exposure to irritating and poisonous dusts, fumes, and gases; the chemical industries and occupations involving the handling of acids and chemicals; metallurgic operations where there is great exposure to intense light and heat; glass making; sand blasting; woodworking operations; the garment trades; and agricultural pursuits.

As to the incidence of eye accidents, the cases of blindness resulting therefrom, and their economic significance, it would seem, from a review of available reports, that the following statements, the absolute accuracy of which can not of course be determined, are probably approximately correct:

1. Of the 2,000,000 annual nonfatal accidents, probably 200,000 are accidents to the eyes.
2. Approximately 15,000 persons in the United States are blind to-day as the result of accidental injury in industrial occupations.
3. The maintenance of these blinded artisans during the remainder of their lives will cost nearly \$10,000,000, which expense will fall in large part on relatives, community, or State.

¹ These figures are unquestionably low even for the States reporting, since in many of them thousands of employers and employees are not covered by State acts and consequently no reports of accidents are filed.

² Eye Hazards in Industrial Occupations. A report of typical cases and conditions, with recommendations for safe practice. By Gordon L. Berry, field secretary, National Committee for the Prevention of Blindness, with the cooperation of Lieut. Thomas P. Bradshaw, U. S. Army, formerly technical assistant to the director of the American Museum of Safety, 130 East Twenty-second Street, New York City, November, 1917. 145 pp. Illustrated.

4. The actual economic loss can not be estimated, and the loss to the unfortunate person whose eyesight is destroyed is, least of all, a matter of dollars and cents.

From these statements it is not apparent that one of the most important industrial problems of to-day is that of the protection of employees from accidents that will destroy or greatly impair vision?

The lodgment of a foreign substance in the eye, too often considered of little importance by workmen, may be a source of very serious eye trouble and possible loss of the member. The report emphasizes the danger from infection which may, and often does, result when the workman neglects the condition or permits the removal of such foreign substance by a fellow workman instead of going at once to a competent physician, or to a hospital. This practice is strongly condemned. "The potentialities of disaster which lie in this kind of procedure should be sufficiently awful to put a stop to the effort if workmen could but understand their significance." The experience of Ohio is quoted. In that State, of 74,525 industrial accidents for which awards were made by the industrial commission in the year ending June 30, 1915, infection was reported in connection with 7,072 or approximately 10 per cent,¹ and of 71,400 cases of temporary disability allowed there were 8,000 cases due to the presence of foreign bodies in the eyes, 519 (6.48 per cent) of these being attended by infection.

The report contains a section on agricultural hazards, in which it is noted that "in all but the large manufacturing centers the majority of serious eye accidents occur among agricultural laborers. Most of them might have been avoided by care. Many of them have resulted in infection and blindness because * * * days or weeks were allowed to intervene between the time when the injury was sustained and the date of calling in an oculist or physician." A number of the State reports are cited showing the incidence of agricultural injuries in relation to all injuries.

A section on goggles indicates the very great probability of preventing the loss of or injury to the eyes if their use can be obtained, either voluntarily or by compulsion. It is stated that during the year 1913, 2,499 employees of a certain railroad sustained eye injuries, many of which were serious, and every one of which, according to an official of the company, might have been prevented if goggles had been worn. A table showing the experience of the American Locomotive Co. (New York) for the years 1910 to 1915 offers an interesting comparative study of the effect of the establishment of the use of safety goggles, the years 1910 to 1913 covering the period when the goggles were not used.

¹ Infections following accidents in Ohio. Industrial commission. Department of investigation and statistics. Report No. 29. This report is noted in the MONTHLY REVIEW for September, 1917, pp. 109, 110.

EXPERIENCE OF THE AMERICAN LOCOMOTIVE CO., SHOWING THE EFFECT OF THE ESTABLISHMENT OF THE USE OF SAFETY GOGGLES, COVERING THE PERIOD 1910 TO 1915.¹

Year.	Number of accidents requiring medical attention.	Number of eyes lost.	Average number of full-time men per year.	Number of full-time men per year per eye lost.	Number of injuries per 1,000 full-time men per year.	Number of full-time men per year per injury.
1910.....	518	13	² 11,547	1,119	35.6	28.0
1911.....	293	7	8,358	1,194	35.0	28.5
1912.....	491	13	11,084	853	44.3	22.5
1913.....	490	9	12,042	1,338	40.7	24.7
Average, 1910 to 1913.....	448	10.5	11,506	1,108	38.9	25.7
1914 ³	86	1	5,004	5,004	17.2	58.2
1915 ⁴	52	2	3,311	1,656	15.7	63.6

¹ To obtain the statement for this year the actual figures for the first six months were multiplied by 2.

² This figure is taken from the report. Based upon the results obtained in the three following columns, the number should be 14,547.

³ Period during which the use of safety goggles was general.

Considerable attention is given in the report to the matter of adequate lighting in factories.

ARBITRATION AND CONCILIATION.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, FEBRUARY 15, TO MARCH 15, 1918.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices between February 15, 1918, and March 15, 1918, in 91 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, FEBRUARY 15 TO MARCH 15, 1918.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, Graniteville Manufacturing Co., Graniteville, S. C.	850	200	Adjusted.
Controversy, Employers' Association and pattern makers, Pittsburgh, Pa.	450	12,000	Do.
Strike, coal miners, Pittsburgh district, Kansas	.....	.....	Do.
Threatened strike, machinists and helpers, Wellman, Seaver & Morgan Co., Akron, Ohio.	450	150	Do.
Threatened strike, machinists, Stewart Manufacturing Co., Chicago.	75	500	Do.
Strike, laundry workers, Kansas City, Mo.	.....	.....	Pending.
Lockout, machinists and tool makers, General Electric Co. (experimental department), Pittsfield, Mass.	2,500	6,000	Adjusted.
Controversy, Erie Boiler Works and boiler makers, Buffalo, N. Y.	60	.....	Pending.
Controversy, railway clerks and station employees, Oregon-Washington Railroad & Navigation System.	750	15,000	Referred to Director General of Railroads.
Strike, molders, Boston, Mass.	1,200	1,600	Adjusted.
Strike, Southwestern Broom Co., Wichita, Kans.	.....	.....	Pending.
Strike, American Smelting & Refining Co. (Hayden smelter), Hayden, Ariz.	200	550	Adjusted.
Strike, Geo. Hendell & Sons, Shillington, Pa.	35	.....	Do.
Strike, Detroit Sulphite, Pulp & Paper Co., Detroit, Mich.	300	150	Pending.
Controversy, Tacoma Smelting Co., Tacoma, Wash.	80	1,000	Adjusted.
Strike, Wright Shipyards, Tacoma, Wash.	225	.....	Do.
Threatened strike, longshoremen, dock of Northern Pacific R. R. Co., Tacoma, Wash.	100	.....	Do.
Controversy, Wireless Specialty Co. and metal polishers, Boston, Mass.	.....	.....	Pending.
Threatened strike, street railway employees, Boston Elevated R. R., Boston, Mass.	.....	.....	Adjusted.
Controversy, Goodrich Rubber Co., Akron, Ohio.	100	.....	Do.
Strike, National Zinc Co., Kansas City, Kans.	306	30	Do.
Controversy, machinists, Liberty Ordnance Co., Bridgeport, Conn.	350	.....	Do.
Controversy, Superior Ship Building Co., Superior, Wis.	800	.....	Do.
Strike, retail clerks, St. Louis, Mo.	.....	.....	Pending.
Threatened strike, Fulton Machine Co. machinists, Knoxville Tenn.	9	425	Do.
Strike, carpenters, 49 shipyards and allied essential industries engaged in war shipbuilding program, New York.	3,009	.....	Adjusted.
Strike, stove mounters, Detroit, Mich., at Michigan Stove Co., Art Stove Co., Peninsular Stove Co., and Detroit Stove Works.	120	1,900	Pending.
Controversy, Kroeschell Bros. Ice Machine Co. and machinists, Chicago, Ill.	28	65	Do.
Controversy, Franklin, Pa., at—	.....	.....	.....
French Creek Foundry Co.	20	60	Do.
Franklin Foundry Co.	35	80	Do.
Venango Manufacturing Co.	15	55	Do.

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LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, FEBRUARY 15 TO MARCH 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, automobile mechanics, Packard Motor Car Co., Philadelphia.	75	.....	Adjusted.
Strike, boiler makers, Birmingham & Southern R. R. Co.	5,000	.....	Pending.
Lockout, flint glass workers, Empire Cut Glass Co., Flemington, N. J.	40	5	Do.
Controversy, Mississippi River and Bonne Terre R. R. and maintenance of way employees, Bonne Terre, Mo.	.....	.....	Do.
Controversy, Southern Pacific R. R. Co. and machinists, Los Angeles, Cal.	8	175	Matter referred to Director General of Railroads.
Controversy, machinists, Worcester, Mass.	.....	.....	Pending.
Controversy, Willys-Overland Co. and machinists, Elyria, Ohio.	1,200	.....	Adjusted.
Controversy, Vari Lace Co., New York.	.....	.....	Do.
Strike, Gurlow Steel Co., Philadelphia, Pa.	.....	.....	Pending.
Strike, freight handlers on piers of Central Vermont R. R., New London, Conn.	91	.....	Adjusted.
Controversy, Lowell Cotton Mills and machinists, Lowell, Mass.	.....	.....	Pending.
Controversy, Saco-Lowell Co. and employees, Lowell, Mass.	1,900	.....	Adjusted.
Threatened strike, carpenters employed by contractor in erection of hotel, Jerome, Ariz.	10	.....	Do.
Strike, Mount Vernon-Woodbury Cotton Duck Mills, Baltimore, Md.	1,800	2,000	Do.
Controversy, Elgin, Joliet & Eastern R. R. Co., Gary, Ind.	290	800	Referred to Director General of Railroads.
Threatened strike, packers, St. Louis, East St. Louis, and Alton, Ill.	.....	.....	Pending.
Controversy, H. P. Snyder Mfg. Co., Little Falls, N. Y.	40	400	Adjusted.
Controversy, Imperial Electric Co. and machinists, Akron, Ohio.	40	.....	Do.
Lockout, Telephone Co., Denver, Colo.	.....	.....	Pending.
Controversy, Lorain Boiler Works, Lorain, Ohio.	.....	.....	Do.
Controversy, Shoreham, Willard, Powhatan, Lafayette, Arlington, Raleigh, Continental, Bellevue, and Occidental hotels, Losekam and Bartholdi cafes, and Washington Waiters' Union No. 781, Washington, D. C.	850	.....	9 adjusted, 2 pending.
Threatened strike, railway clerks, Baltimore Division, Pennsylvania R. R. Co., Baltimore, Md.	2	200	Adjusted.
Strike, machinists and pipe fitters, Hercules Powder Co., San Diego, Cal.	62	950	Pending.
Controversy, telephone operators, Massachusetts.	.....	.....	Adjusted.
Threatened strike, Imperial Electric Co., Akron, Ohio.	35	115	Do.
Controversy, Louisville & Nashville R. R. Co., Jackson, Ky.	1	.....	Matter investigated for Division of Labor, United States Railroad Administration, and report submitted.
Controversy, Los Angeles & Salt Lake R. R. Co., Los Angeles, Cal.	.....	.....	Pending.
Controversy, Lehigh Valley R. R. Co., Manchester, N. Y.	6	40	Adjusted.
Strike, machinists and helpers, Hog Island.	50	.....	Do.
Strike, Wagner Electric Co., St. Louis, Mo.	2,600	.....	Pending.
Controversy, metal trades, Great Falls, Mont.	.....	.....	Do.
Lockout, Stone & Webster Co. and electrical workers, El Paso, Tex.	.....	.....	Adjusted.
Strike, Madison Woolen Co., Madison, Me.	.....	.....	Pending.
Controversy, United Big Vein Coal Co. and Sullivan Bros. Fuel Co., Cumberland, Md.	.....	.....	Do.
Controversy, Huntington Lumber & Supply Co., Huntington, W. Va.	.....	.....	Do.
Controversy, American Graphophone Co. and machinists and toolmakers, Bridgeport, Conn.	115	3,900	Adjusted.
Controversy, Remington Arms Co., Bridgeport, Conn.	.....	.....	Pending.
Walkout, Pullman Palace Car Co., Wilmington, Del.	600	.....	Adjusted.
Controversy, Western Union telegraphers, Jacksonville, Fla.	.....	.....	Pending.
Strike, silk mill workers, Allegany County, Md.	.....	.....	Do.
Controversy, Kinlock Telephone Co., St. Louis, Mo.	.....	.....	Do.
Controversy, Utah Copper Co., Salt Lake, Utah.	.....	.....	Do.
Controversy, Keystone Steel & Wire Co., South Bartonville, Ill.	.....	.....	Do.

LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, FEBRUARY 15 TO MARCH 15, 1918—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, sheet-metal workers, The Clothel Co., Bayonne, N. J.	104	67	Pending.
Lockout, Kennecott Copper Co., Alaska.			Do.
Controversy, Copper River & Northwestern R. R. Co. and train and engine men, blacksmiths, boiler makers, machinists, carpenters, and yardmen, Cordova, Ala.			Do.
Controversy, machinists, Perth Amboy, N. J.			Do.
Lockout, street railway employees, Waco, Tex.			Do.
Strike, firemen, cotton mills, Fall River, Mass.			Adjusted.
Controversy, street railway employees, Des Moines, Iowa.			Pending.
Lockout, Ross Gear & Tool Co., Lafayette, Ind.			Do.
Controversy, The Willys-Overland Co., Toledo, Ohio.			Do.
Threatened strike, blacksmiths and helpers, American Car and Foundry Co., Wilmington, Del.			Do.
Controversy, Toledo Machine and Tool Co. and machinists, Toledo, Ohio.			Do.
Controversy, Quaker Oats Co., Cedar Rapids, Iowa.			Do.
Strike, tobacco workers, Liggett & Myers Co., St. Louis, Mo.			Do.
Controversy, Bell Telephone Co., Coffeyville, Kans.			Do.
Strike, flour and grain handlers, Seattle, Wash.	500	2,000	Do.
Controversy, Standard Gauge & Steel Co., Beaver Falls, Pa.			Do.
Strike, drug clerks, Denver, Colo.			Do.

The following cases noted in the February 14 statement have been disposed of:

- Controversy, plumbers and steam fitters, Camp Pike, Ark. Adjusted.
 Controversy, Charles Kronauer & Co., Harness & Saddlery Works, Chicago, Ill. Unable to adjust.
 Controversy, Schluter Mfg. Co. and sheet-metal workers, St. Louis, Mo. Adjusted.
 Controversy, Southern Ry. Co. and clerks (entire system). Matter referred to Director General of Railroads.
 Controversy, Remington Arms Co. and metal polishers, Eddystone, Pa. Adjusted.
 Controversy, Sturtevant Co. and metal polishers, Boston, Mass. Company is considering moving two or three pattern makers for repair work into some other department, on account of high cost of operating pattern shop; others advised to look for work elsewhere; company agreed to reemploy when business increases.
 In connection with strike of machinists, Tennessee Coal, Iron & R. R. Co., Ensley, Ala., Commissioner Fairley reports strikes at the following plants:
 U. S. Cast Iron & Pipe Co., Bessemer, Ala. Pending.
 Hardie, Tynes Co., Birmingham, Ala. Pending.
 Kehn Foundry Co., Birmingham, Ala. Pending.
 Montgomery Coal Washer Co., Birmingham, Ala. Pending.
 American Casting Co., Birmingham, Ala. Pending.
 Sloss-Sheffield Steel & Iron Co., Birmingham, Ala. Pending.
 Central Foundry Co., Birmingham, Ala. Pending.
 Southern Wheel Works, Birmingham, Ala. Pending.
 Stockham Pipe & Fittings Co., Birmingham, Ala. Pending.
 Bessemer Machine Co., Bessemer, Ala. Pending.
 North Birmingham Furnace Co., North Birmingham, Ala. Pending.
 Demmick Foundry & Pipe Works, Birmingham, Ala. Adjusted.
 Ajax Metal Co., Birmingham, Ala. Adjusted.
 Controversy, Chicago & Eastern Illinois R. R. Co. and maintenance of way employees. Referred to Director General of Railroads.
 Strike, Canton Stamping & Enameling Co., Canton, Ohio. Unable to adjust.
 Controversy, Jacksonville Terminal Co., Jacksonville, Fla. Referred to Director General of Railroads.
 Controversy, Woodward & Tiernan Printing Co. and bookbinders, St. Louis, Mo. Adjusted.
 Strike, electrical workers, Continental Can Co., Chicago, Ill. Adjusted.
 Controversy, Nickel Plate R. R. and freight handlers and transfer men, Cleveland, Ohio. Referred to Director General of Railroads.
 Controversy, Savage Arms Co., Utica, N. Y. Adjusted.
 Controversy, Atchison, Topeka & Santa Fe R. R. Co. and clerks, Chicago, Ill. Referred to Director General of Railroads.
 Controversy, Western Gas Co., Fort Wayne, Ind. Adjusted.
 Controversy, Missouri, Kansas & Texas R. R. Co. and clerks, Fort Worth, Tex. Adjusted.
 Controversy, butchers, Denver, Colo. Adjusted.
 Strike, Grant Smith Shipyards, Portland, Oreg. Referred to United States Shipping Board.

STRIKES AND LOCKOUTS.

STREET CAR LABOR DISPUTE AT MINNEAPOLIS AND ST. PAUL.¹

"Because of the Federal interests which may become involved" the Council of National Defense requested the President's mediation commission to make an informal investigation of the street car strike in Minneapolis and St. Paul and the threatened sympathetic strike which, if called, would affect a number of war industries. The report of the commission was submitted to the chairman of the Council of National Defense under date of February 14, 1918.

The facts developed by the commission indicate that while the company conceded the right of the men to organize, it had, between September 22 and October 4, 1917, discharged 57 of its employees for the reason, as alleged by the union, that these men were active in union affairs. The company denied that this reason was the controlling one. The union called a strike effective October 6 which, however, was terminated on October 9 by the action of the Minnesota State Public Service Commission, a statutory body with broad powers. The union then attempted to extend its organization, and to combat this the company proceeded to build up its employees' mutual benefit society, with the result that both sides began to wear buttons designating the respective organizations to which they belonged. A subcommittee of the State public service commission, upon investigation, found that some irritation was being caused by this practice and recommended on November 19 that the buttons be laid aside. Most of the union men, however, refused to do this, and on November 25 the company posted notices that any employees continuing to wear buttons would not be retained in its service. Several hundred of the men thereupon considered themselves locked out by the company, which, however, the company denied. On November 27 the State public service commission's recommendation of November 19 that all buttons be laid aside was given the force of an order binding both upon the company and its employees.

A general sympathetic strike of all the trade-union men in Minneapolis and St. Paul was ordered for December 13, 1917, an order which would affect a number of war industries and possibly also interfere with interstate railroad transportation. The sympathetic strike order was withdrawn on December 19 at the request of the President's mediation commission. In January the company drew into its employ 28 men from the country districts, while several hundred of its former employees were idle, and the attention of the

¹ Data taken from Official Bulletin for Feb. 19, 1918.

company was directed to the fact that such action was opposed to the Government's war needs which require that men employed in war industries and in the farming districts be not removed to nonwar industries.

After consideration of all these facts developed by the inquiry the President's mediation commission made the following recommendations for the protection of the national interests involved:

(1) While competent former employees are available, the company should not engage men who are at the time employed or can be used in farming pursuits or war industries.

(2) The Nation's requirement of full use of its man power makes it necessary that industries employ men out of work who are as competent as men at the time employed in other lines of work. The Twin City Rapid Transit Co. should in consequence not engage men at work in other industries while idle men, at least as competent, are available in the Twin Cities.

(3) The company should prefer for employment men skilled in the particular line of work over others who have not already had the training or experience for the performance of such work. The company has in the past acted upon this policy because beneficial to it in another aspect, as it has realized that the breaking in of new men is a financial burden which should be avoided. During the October strike the company abstained from employing strike breakers.

Specifically, the company should give preference of employment to its former employees who are now available for employment and who ceased to be in the company's employ in consequence of the labor disputes of the last several months. These men should be reemployed in preference to any others, and the company should not seek to obtain any new employees, either by advertising or otherwise, or engage any other men while its former employees, who are competent, can be secured for the service of the company.

(4) The company has previously announced that it did not intend to discriminate against men because of their affiliations with trade-unions. It understood that the State commission's order provided for the men's going back to work on this basis. The governor of the State, as chairman of the State commission, has publicly stated "that there should be no discrimination against union men." In accordance with the company's announcement, with its understanding of the policy of the State commission, and with the principle stated by its chairman, the company, in returning to work the men who deemed themselves locked out by the company's order, should not discriminate against any of these because of their membership in trade-unions.

(5) The company should, in reemploying these men, follow the principle adopted by the State public safety commission on the previous occasion when a considerable body of men, deeming themselves aggrieved, ceased to work for the company. In the words of the company's representative, "the safety commission said 'these men go back to work with their old standings.'"

The men now out, when put back to work, should be reinstated as to wages, and their status in all respects should be the same as if they had not ceased to be employed by the company.

(6) The employees of the Twin City Rapid Transit Co., who are still without work, should offer themselves for reinstatement by the company as vacancies occur.

PRESIDENT'S MEDIATION COMMISSION.

W. B. WILSON, *Chairman*.

J. L. SPANGLER.

E. P. MARSH.

MAX LOWENTHAL, *Assistant Secretary*.

On March 4 the acting chairman of the Council of National Defense sent the following telegram to the chairman of the Minnesota State Public Service Commission:

Because of the Federal interests involved, the Council of National Defense requested the President's mediation commission to make an informal investigation of the street car strike in the Twin Cities and the threatened sympathetic strike connected with it. The commission reported to the Council under date of February 14 with a number of recommendations. The Council of National Defense is strongly convinced that the policy outlined in the recommendations is essential to the promotion of national defense.

At the time this issue of the REVIEW goes to press no adjustment has been reached. Two members of the mediation commission are in St. Paul endeavoring to effect a settlement.

SETTLEMENT OF LABOR DISPUTES IN THE FRENCH MERCHANT MARINE.¹

The Minister of Commerce and Industry, Posts and Telegraphs, and Merchant Marine issued a decree on December 22, 1917, providing for an early settlement of all collective disputes relative to wages or conditions of labor arising in the merchant marine. The general provisions are summarized as follows:

As soon as the port warden receives information that a collective dispute exists, involving at least 20 regular seamen, deck-hands, engineers, firemen, etc., he shall immediately invite all interested parties to meet at his office in an attempt at conciliation. This meeting shall not be held within 24 hours after issuing the call, but shall be held within three days. Should either party, employer or employees, fail to respond to the call, the port warden shall prepare a report, addressed to the under-secretary of maritime transportation, setting forth the attempt at conciliation and its failure.

Should both parties respond to the call, the port warden shall endeavor to conciliate the differences, and if an agreement is reached, shall prepare a report containing the terms of agreement, which shall be signed by him and the interested parties or their delegates. If no agreement is possible the under-secretary shall be so informed, and he shall immediately refer the question at issue to a superior committee of arbitration, composed of the under-secretary as president, and 5 employers, selected by the national association of employers, 5 representatives of the seamen, designated by the national federation of seamen, and 2 other persons, 1 chosen by the 5 representatives of each of these bodies from magistrates or former magistrates of the judiciary or administrative class who are residents

¹ Journal Officiel de la République Française, Dec. 24, 1917, p. 10557.

of Paris, or from professors in the law faculty of the University of Paris. In case a selection is not made by either of the representative bodies named, the under-secretary shall make such selection.

Not less than 6 arbitrators, 3 representatives from each of the bodies named, together with the 2 other designated members, shall constitute a qualified body. In all cases the parity of representation shall be observed. In case of unequal representation the persons who shall sit upon the board shall be determined by lot. The chief of the under-secretary's office shall act as general secretary to the board.

The board shall have its office at Paris, but it may visit any port where a dispute exists, or delegate some of its members to collect data and complete its investigations. In any number so delegated parity of representation shall be maintained. All decisions must be rendered at the office of the board in Paris. In case a decision is not reached by a majority of votes, the undersecretary shall decide, mention being made thereof in the records. The decisions of the boards are to be published by means of posters placed at the entrances to the offices of the port warden, and are to be filed with official acts relating to the merchant marine. The decree designedly provides no penalties for noncompliance with decisions rendered.

IMMIGRATION.

IMMIGRATION IN DECEMBER, 1917.

The number of immigrant aliens admitted to the United States during the year 1916 was 355,767, as compared with 258,678 for the year 1915, an increase of 97,089, or 37.5 per cent. There was also an increase from month to month during 7 of the 12 months in 1916. During 1917 the figures for the first three months show a considerable decrease from month to month. The decrease from the preceding month for January, February, and March, 1917, is 19.9, 22.3, and 19.4 per cent, respectively. For April, however, the number of immigrant aliens admitted shows an increase of 32.3 per cent over the number admitted in March. As compared with April, the figures of May show a decrease of 48.9 per cent. The figures for June indicate an increase of 5.5 per cent over those for May. During July only 9,367 immigrant aliens were admitted. As compared with the figures for July, those for August show an increase of 7.3 per cent. In September the number fell to 9,228, or 139 smaller than the number admitted in July. As compared with August the figures for September show a decrease of 8.2 per cent. In October there was an increase over the September arrivals of 57, or 0.6 per cent. The admissions in November numbered only 6,446, a decrease of 30.6 per cent from the number admitted in October. In December there was an increase of 8.4 per cent. These facts are brought out in the following table:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS,
1913 TO 1917.

Month.	1913	1914	1915	1916	1917	
					Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	1 19.9
February.....	59,156	46,873	13,873	24,740	19,238	1 22.3
March.....	96,958	92,621	19,263	27,586	15,512	1 19.4
April.....	136,371	119,885	24,532	30,560	20,523	32.3
May.....	137,262	107,796	26,069	31,021	10,487	1 48.9
June.....	176,261	71,728	22,598	30,764	11,095	5.5
July.....	138,244	60,377	21,504	25,035	9,367	1 15.6
August.....	126,180	37,706	21,949	29,975	10,047	7.3
September.....	136,247	29,143	24,513	36,398	9,228	1 8.2
October.....	134,440	30,416	25,450	37,056	9,285	.6
November.....	104,671	26,298	24,545	34,437	6,446	1 30.6
December.....	95,387	20,944	18,901	30,902	6,987	8.4

¹ Decrease.

Classified by races, the number of immigrant aliens admitted into and emigrant aliens departing from the United States during December, 1916 and 1917, was as follows:

IMMIGRANT ALIENS ADMITTED INTO AND EMIGRANT ALIENS DEPARTED FROM
THE UNITED STATES, DECEMBER, 1916 AND 1917.

Race.	Admitted.		Departed.	
	December, 1916.	December, 1917.	December, 1916.	December, 1917.
African (black).....	415	294	105	149
Armenian.....	130	27	17	10
Bohemian and Moravian.....	45	4	18	145
Bulgarian, Serbian, Montenegrin.....	82	17	29	5
Chinese.....	181	180	277	196
Croatian and Slovenian.....	25	1	2	.....
Cuban.....	107	25	263	142
Dalmatian, Bosnian, Herzegovinian.....	29	.....	.....	3
Dutch and Flemish.....	454	142	76	73
East Indian.....	3	3	12	23
English.....	3, 224	819	596	1, 115
Finnish.....	646	273	119	37
French.....	2, 459	446	196	292
German.....	1, 087	178	66	43
Greek.....	3, 028	111	153	35
Hebrew.....	2, 276	318	14	28
Irish.....	1, 653	291	152	255
Italian (north).....	392	91	549	98
Italian (south).....	5, 024	586	1, 493	541
Japanese.....	693	641	68	112
Korean.....	27	7	2	6
Lithuanian.....	68	15	1	2
Magyar.....	49	.....	3	31
Mexican.....	1, 276	28	35	73
Polish.....	437	68	9	297
Portuguese.....	1, 513	300	105	47
Roumanian.....	41	28	12	14
Russian.....	489	122	291	250
Ruthenian (Russniak).....	97	10	2	.....
Scandinavian.....	1, 814	898	736	859
Scotch.....	1, 481	306	183	287
Slovak.....	28	3	.....	120
Spanish.....	840	546	457	132
Spanish-American.....	187	112	52	61
Syrian.....	59	15	17	12
Turkish.....	59	1	1	3
Welsh.....	97	21	5	18
West Indian (except Cuban).....	66	43	80	53
Other peoples.....	321	17	24	35
Not specified.....	.....	.....	785	.....
Total.....	30, 902	6, 987	7, 005	5, 602

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

CALIFORNIA.—*Industrial Accident Commission. General Construction Safety Orders. Effective January 15, 1918. Sacramento, 1917. 32 pp.*

These orders are intended to apply to the construction, alteration, repairing, renovating, removal, or wrecking of buildings or other structures within the State.

— *Social Insurance Commission. California's need of social health insurance. Sacramento, 1917. 16 pp.*

The purpose of this pamphlet is to call the attention of California voters to the fact that in November, 1918, they will be called upon to decide whether or not the State shall have a social insurance system, and its pages are devoted to a summary of the facts and statistics gathered by the commission in its investigation of social and industrial conditions in California which convinced that body of the need of compulsory health insurance for the benefit of the wage earners of the State.

— *State Council of Defense. Report of the Committee on Petroleum. Sacramento, July 7, 1917. 191 pp. Numerous charts and diagrams.*

Discusses the world's petroleum situation, laying special emphasis upon the production and consumption of California oil, and concluding with recommendations as to increasing the production, decreasing the consumption, the supply of labor employed in the industry, and transportation—all intended to effect conservation of the supply.

MARYLAND.—*Annual report of the mine inspector from May 1, 1915, to May 1, 1917, to the Hon. Emerson C. Harrington, Governor of Maryland. Baltimore [1917]. 140 pp. Illustrated.*

MASSACHUSETTS.—*Homestead Commission. The Lowell homestead project; description, explanation, and list of questions. 16 pp. Bulletin No. 7, revised December, 1917. Illustrated. Plans. [Boston], 1917.*

This describes what is the first State-aided housing project in the United States. The commission has begun the construction of about 20 houses with the funds at present available. A garden space will be provided with each house and the houses will be sold on small monthly payments. Three types of houses will be constructed, viz, two types of five-room detached cottages, and a four-room semidetached type. The five-room detached cottages cost about \$2,334 and \$2,382, respectively, and the semidetached about \$1,953.

— *Industrial Accident Board. Fourth annual report, including statistical information and tables on the experience for the year, a comparison of frequency and nature of injuries for four years, and general information on different phases of the compensation act, July 1, 1915, to June 30, 1916, inclusive. Public Document No. 105. Boston, 1917. 272 pp. Illustrated.*

This report is noted on pages 289 to 291 of this issue of the MONTHLY REVIEW.

NEW JERSEY.—*Report on health insurance by the New Jersey Commission on old age insurance and pensions. Rahway [1917]. 20 pp.*

This report is noted on pages 274 to 276 of this issue of the MONTHLY REVIEW.

OHIO.—*The Industrial Commission. Department of Investigation and Statistics. Report No. 32. Preliminary survey of labor camps in Ohio. Columbus, Nov. 29, 1917. 22 pp.*

This report is noted on pages 280 to 283 of this issue of the MONTHLY REVIEW.

— — — *Report No. 33. Union scale of wages and hours of labor in Ohio on May 15, 1917. Columbus, 1918. 44 pp.*

This is the fourth annual report on this subject. Approximately 95,000 wage earners are covered; 14 cities are included; and organized trades recognized in the report are bakeries, breweries, building, metals, printing and publishing, and miscellaneous trades.

PENNSYLVANIA.—*Department of Labor and Industry. Safety standards of the Industrial Board. Vol. 1, No. 22. Lead corroding and lead oxidizing. 15 pp. Vol. 1, No. 25. Suggested safe practices for the manufacture of nitro and amido compounds. 18 pp. [Harrisburg, 1917.]*

WISCONSIN.—*Industrial Commission. Code of boiler rules. Madison [1917]. 52 pp. Diagrams.*

— — — *Standard requirements for bricklayers. [Madison] Jan. 1, 1918. 6 pp.*

An outline suggesting the subject matter of the trade of bricklayer with which an apprentice should be familiar before he can claim to be a first class mechanic and receive the State diploma.

UNITED STATES.—*Council of National Defense. First annual report, for the fiscal year ended June 30, 1917. Washington, 1917. 150 pp.*

Contains a section describing in some detail the organization and functions of the committee on labor of the Council of National Defense, taking up specifically the attitude of labor toward the War, the efforts being made to maintain existing labor standards on Government work, the visit of the British labor mission to the United States in May, 1917, and suggesting the purposes intended to be accomplished by subcommittees or divisions of the committee on labor along the lines of wages and hours, mediation and conciliation, welfare work, sustenance of dependents of soldiers and sailors, sanitation, lighting, industrial fatigue, heating and ventilation, drinking water, industrial diseases, home nursing, medical supervision, industrial training for the war emergency, housing, recreation, public health education, women in industry, and protecting unskilled workers. The report gives the complete organization of the Council of National Defense, its advisory commission, and the boards, sections, and committees under the council and advisory commission.

— *Federal Board for Vocational Education. Circular of information No. 1 for use in training conscripted men for service as radio and buzzer operators (international code) in the United States Army. Bulletin No. 2, October, 1917, 14 pp. Emergency training in shipbuilding. Evening and part-time classes for shipyard workers. Bulletin No. 3, January, 1918. 71 pp. Mechanical and technical training for conscripted men (Air division U. S. Signal Corps). Bulletin No. 4, January, 1918. 47 pp. Training of teachers for occupational therapy for the rehabilitation of disabled soldiers and sailors. Bulletin No. 6, February, 1918, 76 pp. Washington.*

Bulletins Nos. 3 and 4 are largely devoted to outlines of courses of instruction, the latter containing suggested list of test questions to determine proficiency of those completing the courses outlined. The purpose of Bulletin No. 6 is to attempt to meet the very great need for occupational therapists, to show what methods Europe has found to be the best, to outline courses for the emergency training of teachers, and to map out the essentials of a complete national program of rehabilitation.

OFFICIAL—FOREIGN COUNTRIES.

AUSTRALIA.—*Report of the resolutions, proceedings, and debates of the conference of representatives of the Commonwealth and State Governments and of the Federal Parliamentary War Committee (together with appendixes) in respect of the settlement of returned soldiers on the land, etc., held at Melbourne, 17th-19th February, 1916. Melbourne [1916]. 60 pp.*

Contains the resolutions agreed to by the conference pertaining to the settlement of returned soldiers on the land, etc., and the minutes of proceedings and report of debates. Appendixes give the report and recommendations of the subcommittee

appointed by the Federal Parliamentary War Committee to consider the question of settling returned soldiers on the land, a statement showing advances made to settlers by the several States, and a statement of approximate requirements of the several States for advances to soldier settlers.

AUSTRALIA (VICTORIA).—*Thirty-ninth annual report on friendly societies. Report of the Government statist for the year 1916, to which is appended valuations of societies, numerical and financial summaries of the returns furnished by the secretaries, etc. Melbourne, [1917]. 47 pp.*

CANADA.—*Commission of Conservation. Rural planning and development: A study of rural conditions and problems in Canada by Thomas Adams, town planning adviser, Commission of Conservation. Ottawa, 1917. 281 pp. Illustrated. Plates. Plans.*

See pages 283 to 286 of this issue of the MONTHLY REVIEW for a digest of this report.

— *Urban and rural development in Canada. Report of conference held at Winnipeg, May 28–30, 1917. Ottawa, 1917. [102] pp.*

This conference was held jointly with other associations interested in an orderly and socially beneficial development of the land and natural resources of Canada. A special session of the conference was devoted to the problems of the returned soldier.

— (ONTARIO).—*Bureau of Mines. Twenty-sixth annual report, 1917. 366 pp. Maps.*

A notable feature of this report for 1916 is the large increase over 1915 in the number of fatalities and in the fatality rate in mines, metallurgical works and quarries, although each was lower than in 1913 and 1914. In 1916 there were 51 fatal accidents (22 in 1915) and the fatality rate per 1,000 employees was 3.07 (1.51 in 1915). Mention is made of the fact that the report of the workmen's compensation board for 1916 shows that 1,349 claims for compensation by workers in mining and kindred industries were handled by the board during the year, of which 87 claims were for permanent disabilities; that 24,869 days were lost through accidents; that the average age of the injured was 31.1 years; and that the average weekly wages was \$18.21.

— (QUEBEC).—*Provincial Secretary's Department. Bureau of Statistics. Statistical yearbook, 4th year. [1917.] Quebec, 1917. 559 pp.*

FRANCE.—*Ministère de l'Armement et des Fabrications de Guerre. Direction de la Main-d'œuvre. Hygiène et Sécurité des Travailleurs. Protection et utilisation de la Main-d'œuvre Féminine dans les Usines de Guerre. Paris, 1917. 120 pp.*

Circulars and orders issued by the minister of munitions and war manufactures relative to hygiene, safety, and protection of women employed in factories engaged in manufacturing war materials. These have been noted from time to time in the MONTHLY REVIEW.

— *Ministère du Travail et de la Prévoyance Sociale. Office National des Mutilés et Réformés de la Guerre. Agriculteurs mutilés ne changez pas de métier! Bordeaux, 1917. 23 pp. Illustrated.*

This is a report of an address made by Dr. P. Gires, secretary-general of the bureau for agricultural reeducation, on agriculture as an occupation for wounded and invalided soldiers. It is a plea for a "return to the farm." The volume is illustrated, showing how it is possible for persons having suffered the loss of a limb to manipulate farm tools and agricultural machinery.

GREAT BRITAIN.—*Home Office. Protective clothing for women and girl workers employed in factories and workshops. Prepared by the Home Office from information supplied by H. M. inspectors of factories. London, 1917. 15 pp. Illustrated. Price, 3d. net.*

This pamphlet is noted more fully on pages 217 to 219 of this issue of the MONTHLY REVIEW.

— *Report on the manufacture of silica bricks and other refractory materials used in furnaces, with special reference to the effects of dust inhalation upon the workers. London, 1917. 16 pp. Price, 3d.*

This report is noted on pages 292 to 295 of this issue of the MONTHLY REVIEW.

GREAT BRITAIN.—*Local Government Board. Maternity and Child Welfare. Report on the provision made by public health authorities and volunteer agencies in England and Wales. London, 1917. xvi, 239 pp. Price 6d. net.*

This report summarizes the provision made in each sanitary district of England and Wales with the direct object of promoting the health and physical welfare of expectant and nursing mothers, and of infants and children under school age.

— *Manuals of emergency legislation. Defense of the realm regulations, consolidated and revised to December 31, 1917. Edited by Alexander Pulling, C. B. London, 1917. xi, 87 pp. Price, 6d. net.*

— *Medical Research Committee. The mortalities of birth, infancy, and childhood. Special report series, No. 10. London, 1917. 84 pp. Price 1s. 6d. net.*

— *Ministry of Munitions. Dilution of labor bulletin. A monthly publication primarily for officers working in connection with the D. A. Section (dilution) of the labor supply department. London, 1917, 1918. Illustrated.*

The November and December, 1917, and the January, 1918, issues of the dilution of labor bulletin, giving an excellent idea of the work being done by women in various war industries in Great Britain. The December issue contains an article on The effect of dilution in a shell factory, and one on Shorter hours and increased industrial efficiency. In the January issue is an article on The range of women's work, and one on The problem of women laborers in Wales. Each issue contains a department giving notes on recent developments in the employment of women.

— (DILUTION SECTION). *Process sheets, Nos. 1 to 12 (except No. 5). [London, 1917.] 8, 12, and 16 pp. Illustrated.*

These sheets give a list of the processes in connection with various lines of war work on which women are successfully employed in Great Britain, the industries or occupations covered being aircraft; guns, gun components and wagons; small arms; tool room and precision work; machine tools, small tools, etc.; general engineering; blast furnaces, foundry work, metal rolling, etc.; motor vehicles, motor cycles, and cycles, including motor vehicle engines; chemicals, explosives, and allied industries; woodwork; electrical engineering.

— *Health of Munition Workers Committee. Health of the Munition Worker. Handbook prepared by the Health of Munition workers committee. London, 1917. 138 pp. Illustrated. Price, 1s. 6d. net.*

The purpose of this handbook appears to be to state in brief, categorical, and somewhat dogmatic form the principal steps which must be taken to maintain the health and efficiency of the worker. Much of the material is taken from the 20 memoranda issued by the committee from time to time and which have been noted in the MONTHLY REVIEW as they have appeared. In the introduction, which outlines the general principles involved in improving and maintaining the health of the worker, the central purpose of the handbook is thus briefly suggested: "Without health there is no energy, without energy there is no output. More important than output is the vigor, strength, and vitality of the nation." The book shows that it is to the mutual interest of both employer and employee to conserve the health of the latter, for "without health the worker can not earn a decent livelihood for himself and his family or produce output for the employer and the nation." The chapter titles indicate the scope of the work: Relation of fatigue to industry; hours of labor; Sunday labor and night work; lost time, incentive to work; a healthy factory environment; washing facilities and baths; seats, clothing, etc.; the industrial canteen; sickness and accident; protection of the eyesight; industrial diseases; welfare supervision; outside factory conditions. There are illustrations and diagrams, and particular mention should be made of two designs for industrial canteens.

GREAT BRITAIN.—[*Ministry of Munitions.*] *Schedule of protected occupations for men employed on admiralty, war office or munitions work, or in railway workshops.* London, 1918. 40 pp.

— *National Health Insurance. Report on the administration of the national health insurance during the years 1914–17.* London, 1917. 345 pp. Price, 1s. 6d.

The last report issued was for the year 1913–14, and the present report covers the three-year period since that time, the data included presumably being for the years ending, respectively, on June 30, although the report does not so state. The report is dated November, 1917, and describes the work of the national health insurance joint committee, and the national health insurance commissions for England, Scotland, Ireland, and Wales, respectively. The accomplishments of the three years are best shown by the following statement of the amount of the various benefits paid by approved societies in the United Kingdom:

AMOUNT SPENT BY APPROVED SOCIETIES ON SICKNESS, MATERNITY, AND DISABILITY BENEFITS IN THE UNITED KINGDOM, DURING 1913 TO 1916.

Year.	Sickness benefits.		Maternity benefits.		Disability benefits.		Total.
	Amount.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.	
1913.....	\$31,898,384	83.8	\$6,158,828	16.2	(¹)	.....	\$38,057,212
1914.....	35,089,762	81.3	7,154,981	16.6	\$935,244	2.2	43,179,987
1915.....	30,678,134	74.6	6,418,417	15.6	4,095,885	10.0	41,192,436
1916.....	28,190,326	70.7	6,133,094	15.4	5,576,955	14.0	39,900,375
Total.....	125,856,606	77.5	25,865,320	15.9	10,608,084	6.5	162,330,010

¹ No disability benefits paid in 1913.

— *Privy Council. Committee for scientific and industrial research. Report for the year 1916–17.* London, 1917. 63 pp. Price 3d net.

— *Reports to the Local Government Board on public health and medical matters. (New series No. 86). Dr. Frank Seymour's report to the Local Government Board on the occurrence of lead poisoning in the urban district of Guisborough and its relation to the public water supply.* London, 1914. 21 pp.

NETHERLANDS.—*Directie van den Arbeid. Arbeidersbudgets Gedurende de Crisis. Uitgegeven voor rekening van het Departement van Landbouw, Nijverheid en Handel.* The Hague, 1917. 141 pp. Charts.

This volume reports the result of an investigation of cost of living in 1917, compared with 1914. According to the tables given, the weekly expenditure for food for a family of 6 persons, father, mother, and 4 children, increased during the period under observation from 7.56 florins (\$3.04) to 16.03 florins (\$6.44), and for a family consisting of father and mother and 8 children, from 19.88 florins (\$7.99) to 41.34 florins (\$16.62). The expenditure for shoes and clogs (wooden) increased 123.5 per cent and 200 per cent, respectively, for the family of 10 persons. The investigation is based on 43 family budgets.

SPAIN.—*Ministerio de Fomento. Dirección General de Comercio, Industria y Trabajo. Conferencia de Seguros Sociales.* Madrid, 1917.

This volume gives the text of various papers submitted to, and reports of the proceedings of, a conference on social insurance held at Madrid, Spain, October 24 to 31, 1917, in compliance with royal decree of July 29, 1917. The various classes of insurance, industrial accident, agricultural accident, old age, invalidity, unemployment, maternity, etc., are each discussed under appropriate titles. One chapter is devoted to social insurance systems in operation in Spain.

UNOFFICIAL.

ADAMS, HENRY C. *Description of industry: An introduction to economics.* New York, Holt, 1918. 270 pp.

Attempts to produce a simple and yet truthful description of the structure and life of the modern business world, as a background for vocational training.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *Annals*, vol. 73. *Justice through simplified legal procedure.* September, 1917. 251 pp.

In October, 1916, the Phi Delta Phi Club, consisting of graduates in New York and vicinity of the legal fraternity of Phi Delta Phi, appointed a Committee of Nine, under the chairmanship of Henry W. Jessup, J. D., for the purpose of considering what changes in the constitution, statutes, and rules operative in the State of New York are essential to the simplification of practice and greater efficiency in the administration of justice. The report of this committee, accompanied by a number of papers by various writers, on the improvement of judicial machinery, is the subject of the important volume under review. The committee states that it is for the particular purpose of having its defects revealed that the report is given publicity and presented as an attempt "to frame and formulate a concise and generic scheme of legal and judicial efficiency, adaptable to the evolution of the community and its needs and yet sufficiently rigid to preserve from impairment those things which are vital and necessary to the durability of the judicial system."

By courtesy of the owners of the copyright, Roscoe Pound's bibliography on procedural reform is printed as an exhibit of the report.

AMERICAN FEDERATION OF LABOR. *Report of the proceedings of the 37th annual convention held at Buffalo, N. Y., November 12-24, inclusive, 1917.* The Law Reporter Printing Co., Washington, D. C., 1917. 482 pp.

A statement of the more important features of this convention was given in the MONTHLY REVIEW for January, 1918, pages 139-145.

ANDREWS, IRENE OSGOOD, AND HOBBS, MARGARET A. *Economic effects of the war upon women and children in Great Britain.* Carnegie Endowment for International Peace. New York, 1918. 190 pp.

The authors trace in detail the effect of the War upon women industrially, from the first period of unemployment and distress through the gradually increasing demand for their services up to July, 1917, when over a million and a quarter of women were directly replacing men. A study is included of the methods of training and dilution practiced in the munitions trades, the wages question is discussed at length, and sections are devoted to hours of work, to the safety, health and comfort of the workers, and to the attitude of the men's unions toward the employment of women. On the whole, the authors are optimistic as to the results of the changes.

The effect of the War upon the position of children is treated in less detail, as fewer data are available. The relaxation of age and educational restrictions upon their employment is noted, and an estimate is quoted that the number prematurely put to work may have reached 600,000. A seldom mentioned feature of the situation is brought out—the removal of boys and girls under 17 from their homes to places where their labor is more urgently needed, a plan which has given rise to numerous and serious difficulties in the way of supervision, recreation and living conditions outside of work hours. A marked increase in juvenile delinquency is noted. In general the effect of the changing industrial conditions seems to have been far more detrimental to children than to women. The hopeful feature is that the public is beginning to realize the value of children as a national asset, and an attempt has already been begun to put through legislation which will raise English child labor standards to a higher level than has been attained at any previous period.

BAILEY, PEARCE, M. D. *Efficiency and inefficiency: A problem in medicine. Reprinted from Mental Hygiene, 50 Union Square, New York City, April, 1917, pp. 196-210.*

A study on the relation of the study and treatment of mental diseases to industrial and general efficiency.

BELEVSKY, A. AND VORONOFF, B. (*Correspondants de Rousskia Viedmosti de Moscou.*) *Les organisations publiques russes et leur rôle pendant la guerre, avec une préface by M. E. Denis, Professeur à la Sorbonne. 1917. Hachette et Cie. Paris.*

In his foreword to this important sociological work Prof. Denis lays stress upon the capacity of the Russians to renounce their individual existence in hours of exaltation to live the life of collective thought. He says that nowhere else do individuals submit themselves more completely and with less resistance to the impulse of the crowd.

This volume was written at the beginning of 1917 but was not published until after the overthrow of the Empire. Had the book appeared sooner it would have seemed prophetic. The authors depict vividly the social conditions which, in their opinion, made imperative the abolition of the old régime. In this résumé of the official reports of the Zemtos (the provincial councils) and the municipal councils one is brought in close touch with the spirit of the Russian people. The achievements of these various public associations in meeting the war crises in the face of the hostility of the bureaucracy are remarkable. It is shown how in the breakdown of imperial authority the provincial and municipal councils, the cooperatives, the health services, and the workmen's organizations took hold of things and accomplished what appeared almost impossible. Very interesting is the history of the work of these associations in first aid to the wounded, hospital foundations, sanitary services, the struggle with epidemics, the furnishing of the civilian population and the army with food and clothing, the transformation and development of manufacturing, and the mobilization of the small home industries.

BEMAN, LAMAR T. [COMPILER]. *Selected articles on the compulsory arbitration and compulsory investigation of industrial disputes. Third edition, revised and enlarged. Debaters' handbook series. New York, H. W. Wilson Co., 1917. 223 pp.*

BOSTON CHAMBER OF COMMERCE. *The milk question in New England: An investigation of the cost of producing milk in New England and its distribution in Boston, with recommendations. Dec. 31, 1917. 57 pp.*

BREWER, JOHN M. *The vocational-guidance movement: Its problems and possibilities. New York, Macmillan, 1918. 333 pp. Bibliography.*

By the head of the department of psychology and education, Los Angeles State Normal School.

BRONNER, AUGUSTA F. *The psychology of special abilities and disabilities. Boston, Little, Brown & Co., 1917. 269 pp.*

An attempt to discuss, in view of school and vocational misfits, "practical aspects of special abilities and disabilities, to offer in detail methods of attacking problem-cases, and to present various types, both (a) of particular disabilities in those who have normal general ability and (b) of particular abilities in those who are below normal in general capacities." Describes the tests—Binet-Simon and others—used in the study of various cases.

BROTHERHOOD OF LOCOMOTIVE FIREMEN AND ENGINEMEN. *Argument and brief submitted on behalf of locomotive firemen and hostlers. Hearings of Federal Wage Commission, Washington, February, 1918. 285 pp. Charis.*

For a review of this document, see pages 188 to 192 of this issue of the MONTHLY REVIEW.

BROWN, UDETTA D. *The houses of Amsterdam, New York, with some notes on the prevalence of tuberculosis; investigation and report for the Amsterdam Committee on Tuberculosis of the State Charities Aid Association, 1917. 61 pp.*

A study of housing conditions in a city of about 31,000 inhabitants. The worst factor found was the dark room. The basement dwelling is fairly widespread. The

multiple house is gaining in prevalence. All of these, furthermore, are indicated as factors in the spread of tuberculosis.

CARNEGIE UNITED KINGDOM TRUST. *Report on the physical welfare of mothers and children. Scotland. Vol. 3. East Port, Dunfermline, 1917. 632 pp. Illustrated. Maps.*

Volumes 1, 2, and 4, together with a brief statement of the purpose of the survey, were noted in the MONTHLY REVIEW for January, 1918, p. 246.

CHAPPELL, EDGAR L., ED. *The Welsh Housing Yearbook, 1916. Cardiff, South Wales, Garden Cities and Town Planning Assn., [n. d.] 96 pp.*

The first issue of the yearbook designed to provide information for the practical solution of the post-war housing problem in Wales. Other issues will follow. The contents are as follows: Layout plan of Barry Garden Suburb; South Wales Garden Cities and Town Planning Association; The housing problem in Wales; Conclusions of Welsh Land Inquiry Committee on rural housing in Wales; Layout plans of Wrexham and Ely garden villages; What town planning means; Municipal housing in Wales; Municipalities and housing reform; Cooperation in housing; Public utility societies in Wales; War and the housing problem; What a garden city is; The garden village method of estate development; Cottage building after the war; Building societies and housing in South Wales; Town planning in the Welsh valleys; The acquisition of small dwellings; Miners and the housing problem.

COLE, G. D. H. *Self-government in industry. London, Bell, 1917. 329 pp.*

Some general suggestions for industrial reconstruction, written "in the hope of helping the labor movement in the formulation of a constructive policy, and of enlisting the sympathies of all those to whom a capitalistic and militaristic imperialism is abhorrent."

The author makes the statement that "the capitalists have no intention of a permanent return after the war to prewar conditions: The war has given them their chance * * * they have a coherent policy which they are even now putting into effect, while the workers are still at the most only groping their way toward a constructive alternative."

COMMONWEALTH CLUB OF CALIFORNIA. *Industrial unrest. Transactions, Vol. XII, No. 11. San Francisco, 1917. Pp. 481-529.*

Addresses and discussion on the following subjects: Trade agreements as an aid to industrial peace, Some economic factors in the problem of social unrest, The high cost of living and industrial unrest, and Industrial relations from the human viewpoint.

CORN EXCHANGE NATIONAL BANK. PHILADELPHIA. *Processes in which women can do the work of enlisted men. Philadelphia, [1918]. 29 pp.*

A prefatory note announces that information in this pamphlet covering the processes and positions in which women can be used has been compiled from pamphlets issued by the British Government. These pamphlets are noted on page 311 of this issue of the MONTHLY REVIEW.

CRAIK, WILL W. *Outlines of the history of the modern British working-class movement. London District Council of the National Union of Railwaymen [1916]. 120 pp.*

Based on a series of articles by the same author in the Railway Review in 1916, written to serve in place of a textbook for students of the National Union of Railwaymen classes.

EHRHARD, AUGUSTE. *Les oeuvres de l'Hotel de Ville pendant la guerre. Lyon, Rey, 1916. 198 pp. Illustrated.*

An account of the various branches of relief work which have been carried out since the beginning of the war by the city of Lyon, including municipal hospitals; vocational schools for the wounded; the provision of linen and comforts for soldiers; aid for prisoners of war; searching for lost soldiers and for French and Belgian refugees;

the care of the families of soldiers and of the children of widowed soldiers; aid for refugees, for interned civilians, and for the people of Alsace-Lorraine; and municipal sewing rooms and home work for women.

ELY, RICHARD T., AND RALPH H. HESS, CHARLES K. LEITH, AND THOMAS NIXON CARVER. *The foundations of national prosperity: Studies in the conservation of permanent national resources.* New York, Macmillan, 1917. 378 pp.

The four authors, in the order named, contribute the following papers: I. Conservation and economic theory; II. Conservation and economic evolution; III. Conservation of certain mineral resources; and IV. Conservation of human resources.

FARRAR, C. B. *The problem of mental disease in the Canadian army.* Reprinted from *Mental Hygiene*, 50 Union Square, New York City, July, 1917, pp. 339-391.

Treats of the classification and group treatment of the nervous and mental cases among soldiers invalided to Canada, comprising 10 per cent of all.

GIDE, CHARLES. *Les sociétés coopératives de consommation.* Paris, 1917. 354 pp. Third edition.

A review of the history of the consumers' cooperative movement in the different countries of Europe, and a study of the organization, aims, and methods of consumers' cooperative societies at the present time.

JENKS, JEREMIAH W., AND LAUCK, W. JETT. *The immigration problem: A study of American immigration conditions and needs.* Fourth edition, revised and enlarged. New York and London, Funk & Wagnalls, 1917. 605 pp. Map and diagrams.

[JOINT COMMITTEE ON LABOR PROBLEMS AFTER THE WAR.] *The position of women after the war.* 20 pp. *The problem of unemployment after the war.* 7 pp. *The restoration of trade-union conditions in cases not covered by the munitions acts.* 9 pp. *The restoration of trade-union customs after the war.* 14 pp. London, Cooperative Printing Society, 1917.

These four pamphlets are issued by the Joint committee on labor problems after the war, composed of representatives of the parliamentary committee of the trade-union congress, the executive committee of the labor party, the management committee of the general federation of trade-unions, and the war emergency workers' national committee. The first pamphlet listed is a report of the joint standing committee of industrial women's organizations presented to the joint committee on labor problems after the war; the second pamphlet is a memoranda on the prevention of unemployment and the necessity for the revision of the unemployment insurance acts; the third pamphlet contains a statement of the position with recommendations for enforcement; the fourth pamphlet contains a statement and analysis of the Government guarantees.

JONES, ROBERT. *Notes on military orthopedics.* Published for British Red Cross Society. London, New York, Toronto, and Melbourne, Cassell, 1917. 132 pp. Illustrated.

A reprint of a series of articles in the British Medical Journal in 1916, by the inspector of military orthopedics, British Army Medical Service. An attempt to formulate rules for the correction of deformities resulting from war injuries.

KIRKLAND, JOHN. *Three centuries of prices of wheat, flour, and bread. War prices and their causes.* London, J. G. Hammond & Co. (Ltd.), 1917. 64 pp.

"This work is not issued for entertainment, but only as a handy source of reference to the many who do, or who must, make themselves familiar with relative prices." It contains a statement of the chief factors which throughout the 317-year period have entered into the prices of wheat, flour, and bread, and includes a table giving the prices of these three commodities from the year 1600 to and including the first six months of the year 1917, together with brief notes of events likely to influence prices at any particular year. There is a chapter on "An appreciation of the main factors in the rise of prices and freights (1914-1917)," and also a chapter on "War time bread prices," covering the present war. In this connection a table is given

showing that the price per 4-pound loaf in London in August, 1914, was 5½d. (11.2 cents), while in August, 1917, it had risen to 1s. (24.3 cents).

LAND UNION, LONDON. *The housing question as affected by recent legislation: Reasons for repeal of Part 1 of the Finance (1909-1910) act, 1910. 2d. ed. rev. Published by the Land Union, London, 1917. 24 pp.*

Relates to the so-called Lloyd-George budget which placed heavy taxes upon land values and unearned increments in land, and advocates the repeal of those land duties.

LAROUSSE MÉDICAL ILLUSTRÉ DE GUERRE. *By Dr. Galtier-Boissière, with the collaboration of others. Paris, Librairie Larousse, [1917]. 336 pp. Illustrated.*

A supplement of the Larousse Medical Encyclopedia. While this work carries the title of "medical encyclopedia of the war," it should not be concluded that it treats exclusively of military surgery and medical practice especially due to the war. The practice herein described is applicable to all individuals under all circumstances. The work gives information as to the functional reeducation of the wounded, and contains numerous illustrations of processes of treatment and appliances of prosthesis.

LAUCK, W. JETT. *Cost of living and the War: An analysis of recent changes. Cleveland, The Doyle & Waltz Printing Co., 1918. 196 pp.*

This volume is a summarization and analysis of official and authoritative data bearing upon the cost of living with special reference to the families of wage earners. Part I is a brief analysis and interpretation of the data contained in Part II, which consists primarily of reprints from official publications of retail and wholesale price data and the results of original investigations and studies relative to the budgets of workingmen's families.

LEAGUE FOR PREVENTIVE WORK [BOSTON]. *Food supply in families of limited means: A study of present facts of the food problem in Boston families, by six welfare agencies, members of the League for Preventive Work. Boston, December, 1917. 24 pp.*

A cooperative study based on 200 schedules recording the food purchases during one week of representative families known to one or more of the agencies making the investigation. The material is grouped as follows: 1. General description of the families studied; 2. Character of their diet as shown by food purchases during the selected week (July 8-14, 1917); 3. Adequacy and economy of the diet in relationship to size and circumstances of the family; 4. Conclusions and recommendations.

McKILLOR, M., AND A. D. *Efficiency methods. New York, Van Nostrand, 1917. 215 pp. Illustrated.*

A brief account of "certain methods recently suggested for increasing efficiency in industry"—in short, the Taylor system—for the information of English business men.

MAINE STATE FEDERATION OF LABOR. *Proceedings of the fourteenth annual convention at Bar Harbor, June 5, 6, and 7, 1917. Portland, Bryson & Welch, [1917]. 71 pp.*

MERIAM, LEWIS. *Principles governing the retirement of public employees. Published for the Institute for Government Research. New York and London, Appleton, 1918. 477 pp. Bibliography.*

The object sought in preparing this book has been primarily "to set forth the principal economic, social, administrative, and financial questions involved in establishing a retirement system and then, in so far as possible in limited space, to summarize the more important arguments for and against alternative lines of action."

The author does not undertake to outline an ideal retirement system, but suggests that it is necessary to decide approximately what proportion of, say, the average salary of the last few years of service it seems desirable to provide as a superannuation benefit at the compulsory age of retirement; to have the actuary determine, in respect to entrants at each age, what proportion of salary would have to be set aside each year to provide for an annuity of that amount; to decide upon a maximum for such contribution, and to provide that persons entering late in life should pay no more than that amount and should have their benefit correspondingly decreased. The per-

centages of salary to be deposited would be worked out so as to produce the desired benefit only in the average case.

If the service has low paid employees some special device, in the opinion of the author, must be adopted, since one-half active salary would not take care of those whose wages are at or near the minimum of subsistence. To meet this requirement the ideal superannuation benefit might be regarded as composed of two parts: (1) A certain fixed sum and (2) a certain portion of salary, the two making the total allowance. For example, in a community where the minimum of subsistence of an aged man and his wife was approximately \$600 a year and the wages of the lowest paid employees of the retirement age were \$720 the actuary might be asked to determine, for the different ages at entrance, what percentage of salary would have to be set aside to provide, in the average case, a retirement annuity of \$400 plus one-third the average salary of the last five years. The deposits to the account of the employee would then be made on that basis. Under normal advancement the employee in the \$720 class would on retirement have provided himself with an annuity of \$640 (\$400 plus one-third of \$720), whereas the employee in the \$900 class would have \$700, the employee in the \$1,200 class \$800, the employee in the \$1,800 class \$1,000, and the employee in the \$2,400 class \$1,200. Each, however, will have exactly what his contributions and those in his behalf will pay for, and these results will be produced only in the average case. Those who advance less rapidly will get larger benefits in proportion to their salaries; those who advance more rapidly, smaller benefits.

This device suggests the use of the salary scale to make the percentage deductions uniform throughout service, thereby avoiding high retents from late promotions and the combination of the fixed sum and the proportion of salary in arriving at the percentage deduction to provide suitable minimum allowances. It has seemed to the author that along this line lies the solution of the superannuation retirement problem rather than along the line of benefits directly proportional to salary. The important thing is to connect benefits and the amount available to pay for them, rather than to connect salary and benefits and to run the risk of endangering the financial stability of the system, or interfering with changes, and of dealing unfairly by the less highly paid classes.

NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS. *Eye hazards in industrial occupations. A report of typical cases and conditions, with recommendations for safe practice.* 130 E. 22 St., New York, Nov., 1917. 145 pp. Illustrated.

This report is noted on pages 295 to 298 of this issue of the MONTHLY REVIEW.

NATIONAL SAFETY COUNCIL. *Proceedings of sixth annual safety congress, New York, September 11-14, 1917. Part I: General, business, and health service section, public safety division, etc.* 414 pp. and index.

Contains important papers on the problems of organization, education, and safeguarding in accident prevention work; health instruction, hospitals, dispensaries, and first aid, the Carrel-Dakin method of treating infections, the visiting nurse in industry, and other subjects.

PRICE, GEORGE M. *The union dental clinic: A cooperative, self-supporting modern dental clinic for the members of the International Ladies Garment Workers' Union, established by the Joint Board of Sanitary Control in the Cloak, Suit and Skirt and the Dress and Waist Industries.* New York, 1918. 6 pp. Illustrated.

A statement of the operation of this clinic from its installation May 7, 1917, to the close of the same year.

SAGAMORE SOCIOLOGICAL CONFERENCE. *Proceedings of tenth meeting, Sagamore Beach, Mass., June 27-29, 1917.* Wm. C. Ewing, Sec., 985 Washington St., Boston Mass. 87 pp.

Includes, among other addresses, Conserving our human resources, by Agnes Nestor, and Cooperative enterprises, by James P. Warbasse.

STRUBBING, R. F. [REPORTER]. *Appeals from munitions tribunals*. [Great Britain.] Vol. 1, 9 pamphlets, May 12, 1916, to Jan. 19, 1917. Vol. 2, 9 pamphlets, Mar. 15, 1917, to Feb. 8, 1918. London and Tonbridge, The Whitefriars Press (Ltd.).

SWIFT AND COMPANY. *Reply to questions submitted July 23, 1917, by the Federal Trade Commission*. Chicago, 1917. 35 pp. Diagrams.

The production, marketing, costs, prices, profits, etc., of meat products in the United States.

TECHNICAL JOURNALS, LTD. *Houses for workers*. *Technical Journals (Ltd.)* [London, 1917. 100 pp.] Plates. Plans.

A series of selected examples of houses suitable for working-class families both in rural and in urban districts. Plans are shown, with costs and descriptions, of a general selection of cottages for rural and urban workers; a colony of houses erected by the Government for munitions workers near Woolwich, England, and an estate of houses at Kennington, London.

UNITED MINE WORKERS OF AMERICA. *Minutes of twenty-sixth consecutive and third biennial convention, Indianapolis, January 15-26, 1918*.

WESTERN EFFICIENCY SOCIETY. *The human factor in industrial preparedness: Complete report of the proceedings of the national conference, Chicago, May 23-25, 1917*. 212 pp. Illustrated.

Papers by Harrington Emerson, John P. Frey, Frank B. Gilbreth, Charles R. Van Hise, and a number of others.

WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION. *Thirty-ninth annual report*. 1916-17. Boston, 1918. 41 pp.

Notwithstanding the uncertain business conditions, this report shows an increase in the volume of constructive work done by the union during the year ended September 30, 1917.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bi-monthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the bureau issued prior to July 1, 1912, will be furnished on application.

Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

Wages and Hours of Labor—Concluded.

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