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## ANNOUNCEMENT.

With this issue the name of the Monthly Review is changed to the Monthly Labor Review, which more accurately indicates the nature of the publication.

In the three years of its existence the Monthly Review has come to be recognized as the authoritative official periodical dealing with matters of current interest relating to labor. As announced in the first number issued July, 1915, the Monthly Review was established for the purpose of giving to the public, as early as possible, the wealth of information coming to the Bureau on current events in the field of labor which otherwise would be either wholly inaccessible or long delayed, awaiting the appearance of official reports and bulletins.

The Review publishes summaries of the results of investigations carried out by the Bureau of Labor Statistics and gives the latest developments in all lines directly concerning labor, both at home and abroad.

Acknowledgment is hereby made of the cooperation and assistance given by Federal, State, and foreign labor officials in reporting matters of importance and current interest to the Bureau of Labor Statistics for inclusion in the Review. It is highly desirable that this cooperation may be made closer and more far-reaching so that the Monthly Labor Review will be able to give to the public very promptly, complete summaries of important new legislation, court decisions and administrative orders affecting labor for all the States of the Union and for foreign countries as well.

Quite as important as the cooperation of labor officials is that of the merchants who report periodically wholesale and retail prices of commodities and the manufacturers who report volume of employment and amounts of pay rolls.

It is my hope to extend and strengthen the presentation of up-to-date information on wholesale and retail prices and cost of living; wages and hours of labor; minimum wage; women in industry; dilution of labor; employment and unemployment; conciliation, mediation and arbitration; strikes and lockouts; collective bargaining; labor organizations; industrial accidents and hygiene; workmen's compensation and social insurance; rehabilitation of injured men; housing and welfare work, and other matters relating to the well-being of working men and women. It is intended to make the bibliographies of official and unofficial publications, carried at the end of each number, as complete and authoritative as possible.

ROYAL MEEKER,  
U. S. Commissioner of Labor Statistics.

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# MONTHLY LABOR REVIEW

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## NEW YORK HARBOR EMPLOYEES.

BY BENJAMIN M. SQUIRES.<sup>1</sup>

### THE PORT OF NEW YORK.

The port of New York has 921<sup>2</sup> miles of water front as compared with 141 at Boston, 120 at Baltimore, 37 at Philadelphia, 26 at Norfolk, 41.5 at New Orleans, 8 at Galveston, 8 at San Francisco, and 113.9 at Seattle. The population of the cities fronting New York Harbor is approximately 6,500,000, as compared with a combined population of approximately 4,350,000 in the other cities named above. The average annual value of imports and exports of the port of New York for the period 1911-1913 was \$1,809,358,239, or 46.2 per cent of the total for the United States. For the year ending December 31, 1917, the value of imports and exports of the port of New York was \$4,260,404,848, or 46.6 per cent of the total for the United States. Thirteen railroads, the operating mileage of which is 39,707.96, have terminals at New York Harbor, and vessels of 91 steamship lines engaged in foreign trade sail from the harbor. In addition to these 91 lines, there are 15 lines whose vessels ply between New York Harbor and points on Long Island Sound. Here are great ocean liners that touch every port in the world, steamers that sail to Africa, to Asia, to South America, along the coast, up the Sound, through the Panama Canal, up the Hudson—railroads East, West, North, South, everywhere—in short, a veritable network of intercommunication with all the world, resembling a giant telephone switchboard.

It is with reference, however, to the insular location of the cities comprising Greater New York, with a combined population of 5,602,841, that the harbor of New York has a significance unlike that of any other harbor in the world. Thus, the center of industrial, commercial, and maritime activities at the port of New York is the lower portion of Manhattan Island, bounded on the east by the East River, on the west by the Hudson River, and on the south by New York Bay. Staten Island is separated from Manhattan by the waters of the Upper Bay. Brooklyn, located on Long Island, is separated from New Jersey by the Upper Bay, and from Manhattan by the East River.

<sup>1</sup> In the preparation of this article Mr. Squires was assisted by Mr. Arthur E. Albrecht, who collected much of the material on which the article is based.

<sup>2</sup> Measured along shore and around piers. The distance along the shore proper is said to be 771 miles.

Of the 10 railroads reaching New York from the west and north, only two reach New York on their own rails, and one of these has its freight terminal on Staten Island. The other eight roads have their rail terminals on the Jersey side of the harbor.

Of the 91 steamship lines, only 9 have their piers on the Jersey side of the harbor. Freight arrives at the railroad terminals consigned to points in Manhattan or Brooklyn or for export. Conversely, shipments from Manhattan and Brooklyn and imports are consigned to western or northern points on these railroads and must be delivered at the rail terminals.

When freight consigned to points in Manhattan or Brooklyn arrives at the terminals of rail carriers on the New Jersey side of the harbor, the shipments are transported from piers or float bridges to points on the other side of the harbor. In the case of export freight arriving at railroad terminals, the shipments are transferred to a vessel or to a pier at which the vessel is lying. Imports from foreign ports to inland railway points follow the reverse of the above practice, the freight being transferred from ship's side or from the piers to the railway terminals on the Jersey side.

In addition to the above, there must be considered the transfer of domestic freight between points about the harbor; of coal from coal ports, all of which are on the west side of the harbors; of miscellaneous shipments from one pier or warehouse to another; of freight arriving from the Great Lakes by way of the Erie Canal and from points on the Hudson to be exported or distributed about the harbor or conversely to be carried by these routes to inland ports; and the immense volume of passenger traffic between Manhattan, Long Island, Staten Island, and cities on the Jersey shore.

The following summary of pier and terminal locations at the port of New York shows concisely how important the harbor is in coordinating the facilities at the port:

All along the west side of Manhattan Island from the "Battery" to the freight terminals of the New York Central Railroad at Sixtieth Street are piers for the accommodation of ocean vessels and the floating equipment of the various rail lines serving the port. Numerous steamship lines whose vessels are engaged in foreign and coastwise trade have pier space on the west side of the island; and here, too, are the railroad pier stations of the principal trunk lines, whose lighters and car floats are almost constantly engaged in transferring freight between these stations and the railroad terminals on the New Jersey side of the harbor.

On the west side of the Hudson River, directly opposite Manhattan Island, are the terminals of the trunk lines reaching the port of New York from the north and west. With a few exceptions to be noted later practically all of this portion of the New Jersey shore from Guttenburg to Constable Hook is owned by the railroads and used for railroad purposes. At Weehawken are the freight and passenger terminals of the West Shore Railroad Co. and a number of piers owned by that company. A short distance to the south are the terminals of the Erie Railroad Co., and the piers, stations, and ware-

houses owned by that carrier. South of the Erie terminal, in the city of Hoboken, are the piers of the Scandinavian-American line, the Holland-American line, the North German Lloyd, and the Hamburg-American line.

Immediately to the south of these steamship piers are terminals of the Delaware, Lackawanna & Western Railroad Co., the Erie Railroad Co., and the Pennsylvania Railroad Co., the two latter terminals being located in Jersey City, opposite the southern end of Manhattan Island. A short distance to the south of the Pennsylvania terminals is the Morris Canal Basin adjoining which, in Communipaw, are the terminals of the Lehigh Valley Railroad Co. and the Central Railroad Co. of New Jersey. Still farther to the south are the "Black Tom" terminal of the Lehigh Valley Railroad and the Greenville terminal of the Pennsylvania Railroad. The terminal of the Baltimore & Ohio Railroad is on Staten Island, opposite Constable Hook.

It is unnecessary to give a detailed description of the Brooklyn shore front. It suffices for the purposes of this report to observe that the larger private terminal companies which act as the agents of the trunk line railroads in transferring freight across the harbor have their terminals on the Brooklyn shore. The most northerly of these is the Brooklyn Eastern District Terminal, located on the East River north of Wallabout Bay. To the south is the Jay Street Terminal, and just south of the Brooklyn Bridge are the extensive terminals of the New York Dock Co. The Bush Terminal Co. has its terminals between Gowanus Bay and Bay Ridge. The Brooklyn Eastern District Terminal has a small terminal at the foot of Warren Street, Jersey City, adjacent to a refinery of the American Sugar Refining Co., but that terminal is not connected with the rails of any of the trunk lines and is not generally used by Jersey City shippers.<sup>1</sup>

A representative of the Merchants' Association of New York pictures the waters surrounding Manhattan Island as "an interior belt line" employed in switching cars between the terminals on the New Jersey shore and the industries, pier stations, and private terminals in various parts of the harbor. Unlike the cars on a belt line railroad or an industrial siding, the car floats and lighters plying in New York Harbor are not restricted in their operation to a narrow roadbed or to the line of a particular carrier. They can readily transport freight to almost any point in the harbor or in the waters tributary thereto; and it may be said that an industry located, for example, at the Bush Terminal in Brooklyn has convenient access to the terminals of all the trunk lines serving the port. By means of the car floats and lighters the industries along the water front can receive their raw materials over the lines of any of these rail carriers, and in shipping their finished products to the West they find nearly a dozen trunk lines ready to serve them.

#### HARBOR CRAFT AND EMPLOYEES.

Without going further into the physical characteristics of the port of New York it will be apparent that the harbor craft play an important rôle not only in transferring freight between railroad terminals and steamships but also in supplying the cities of New York and

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<sup>1</sup> Interstate Commerce Commission. The New York Harbor case. No. 8994, pp. 650-665.



Brooklyn with food and other commodities. It will be recalled in this latter connection that during the fuel shortage of last winter coal was reported to be at "tidewater" points but that unfavorable weather and harbor ice prevented its movement to Manhattan and Brooklyn in sufficient quantities to meet daily needs. The situation was, of course, aggravated by a general freight congestion and insufficient fuel reserve in many cities but it served to emphasize to residents of New York City and Brooklyn the dangers of any interruption to harbor traffic. With the increase in the commerce of the port since the outbreak of the War and with the constantly increasing flow of men and supplies since our own participation in the War, the harbor traffic of the port of New York assumes such an important aspect that any prolonged interruption might well be an international calamity.

Harbor boats may be roughly divided into self-propelled and non-self-propelled. The number of self-propelled harbor craft is readily determinable from documentation and steamboat inspection records. The number of nonself-propelled harbor craft is difficult of determination, only those nonself-propelled craft being documented or registered that are licensed to go outside the harbor. Of the nonself-propelled craft that operate exclusively in the harbor, no official record is kept. The following figures, however, compiled by the Bureau of the Census of the United States Department of Commerce for the year 1916 probably represent approximately the number of harbor craft of the classes indicated, their gross tonnage, value, and gross income, and also the number of employees operating these craft and their wages for that year. Figures are shown for New York Harbor and for the United States.

TABLE 1.—CRAFT OPERATING IN NEW YORK HARBOR, BY CLASS, AND PER CENT IN EACH CLASS: 1916.

| Class of vessels.                  | Vessels. |                    | Tonnage.    |                    | Value of vessels. |                    |
|------------------------------------|----------|--------------------|-------------|--------------------|-------------------|--------------------|
|                                    | Num-ber. | Per cent of total. | Gross tons. | Per cent of total. | Amount.           | Per cent of total. |
| Tugs and other towing vessels..... | 559      | 9.1                | 57,697      | 3.2                | \$13,153,417      | 21.7               |
| Ferry boats.....                   | 125      | 2.0                | 115,363     | 6.4                | 11,406,584        | 18.9               |
| Municipal.....                     | 16       | 0.3                | 15,471      | 0.9                | 2,107,199         | 3.5                |
| Railroad.....                      | 59       | 1.0                | 68,881      | 3.8                | 6,779,130         | 11.2               |
| All other.....                     | 50       | 0.8                | 31,011      | 1.7                | 2,520,255         | 4.2                |
| Unrigged craft.....                | 5,433    | 88.8               | 1,641,694   | 90.4               | 35,938,792        | 59.4               |
| Total.....                         | 6,117    | 100.0              | 1,814,754   | 100.0              | 60,498,793        | 100.0              |



TABLE 1.—CRAFT OPERATING IN NEW YORK HARBOR, BY CLASS, AND PER CENT IN EACH CLASS: 1916—Concluded.

| Class of vessels.                  | Gross income. |                    | Employees on vessels. |                    | Wages of employees. <sup>1</sup> |                    |
|------------------------------------|---------------|--------------------|-----------------------|--------------------|----------------------------------|--------------------|
|                                    | Amount.       | Per cent of total. | Number.               | Per cent of total. | Amount.                          | Per cent of total. |
| Tugs and other towing vessels..... | \$11,823,720  | 23.1               | 4,156                 | 32.9               | \$4,111,078                      | 37.5               |
| Ferry boats.....                   | 7,118,972     | 13.9               | 1,600                 | 12.7               | 1,669,473                        | 15.2               |
| Municipal.....                     | 1,115,572     | 2.2                | 364                   | 2.9                | 413,903                          | 3.8                |
| Railroad.....                      | 4,169,147     | 8.2                | 800                   | 6.3                | 855,575                          | 7.8                |
| All other.....                     | 1,834,253     | 3.6                | 436                   | 3.5                | 399,990                          | 3.6                |
| Unrigged craft.....                | 32,177,239    | 62.9               | 6,876                 | 54.4               | 5,190,072                        | 47.3               |
| Total.....                         | 51,119,931    | 100.0              | 12,632                | 100.0              | 10,970,623                       | 100.0              |

<sup>1</sup>Includes board and lodging.

TABLE 2.—UNITED STATES: ALL VESSELS AND CRAFT, BY CLASS, AND PER CENT IN EACH CLASS: 1916.

| Class of vessels.                  | Vessels. |                    | Tonnage.    |                    | Value of vessels. |                    |
|------------------------------------|----------|--------------------|-------------|--------------------|-------------------|--------------------|
|                                    | Number.  | Per cent of total. | Gross tons. | Per cent of total. | Amount.           | Per cent of total. |
| Commercial vessels.....            | 37,546   | 87.1               | 12,203,670  | 98.5               | \$930,568,484     | 95.0               |
| Freight and passenger.....         | 7,696    | 17.9               | 6,506,910   | 52.5               | 732,572,930       | 74.8               |
| Tugs and other towing vessels..... | 3,689    | 8.6                | 264,135     | 2.1                | 54,928,805        | 5.6                |
| Fishing vessels.....               | 5,216    | 12.1               | 145,246     | 1.2                | 19,463,269        | 2.0                |
| Ferry boats.....                   | 611      | 1.4                | 234,328     | 1.8                | 23,227,174        | 2.4                |
| Municipal.....                     | 40       | .1                 | 25,230      | .2                 | 2,755,322         | .3                 |
| All other.....                     | 571      | 1.3                | 199,098     | 1.6                | 20,471,852        | 2.1                |
| Unrigged craft.....                | 20,334   | 47.2               | 5,063,051   | 40.8               | 100,376,366       | 10.2               |
| Yachts.....                        | 4,354    | 10.1               | 123,007     | 1.0                | 35,387,656        | 3.6                |
| Miscellaneous.....                 | 1,210    | 2.8                | 68,559      | .6                 | 13,432,493        | 1.4                |
| Total.....                         | 43,110   | 100.0              | 12,395,236  | 100.0              | 979,388,633       | 100.0              |

| Class of vessels.                  | Gross income. |                    | Employees of vessels. |                    | Wages of employees. <sup>1</sup> |                    |
|------------------------------------|---------------|--------------------|-----------------------|--------------------|----------------------------------|--------------------|
|                                    | Amount.       | Per cent of total. | Number.               | Per cent of total. | Amount.                          | Per cent of total. |
| Commercial vessels.....            | \$583,347,144 | 99.0               | 168,762               | 94.1               | \$108,389,194                    | 94.2               |
| Freight and passenger.....         | 423,774,339   | 71.9               | 92,005                | 51.3               | 61,624,912                       | 53.5               |
| Tugs and other towing vessels..... | 39,660,570    | 6.7                | 23,476                | 13.1               | 15,929,657                       | 13.8               |
| Fishing vessels.....               | 25,388,520    | 4.3                | 25,975                | 14.5               | 11,876,357                       | 10.3               |
| Ferry boats.....                   | 15,414,979    | 2.6                | 4,282                 | 2.4                | 3,947,836                        | 3.4                |
| Municipal.....                     | 1,317,773     | .2                 | 570                   | .3                 | 638,785                          | .6                 |
| All other.....                     | 14,097,206    | 2.4                | 3,712                 | 2.1                | 3,309,051                        | 2.9                |
| Unrigged craft.....                | 79,108,745    | 13.4               | 23,024                | 12.8               | 15,011,432                       | 13.1               |
| Yachts.....                        | 207,747       | ( <sup>2</sup> )   | 6,772                 | 3.8                | 3,683,538                        | 3.2                |
| Miscellaneous.....                 | 5,569,996     | .9                 | 3,742                 | 2.1                | 3,088,159                        | 2.6                |
| Total.....                         | 589,124,887   | 100.0              | 179,276               | 100.0              | 115,110,891                      | 100.0              |

<sup>1</sup>Less than one-tenth of 1 per cent.

## SELF-PROPELLED HARBOR CRAFT.

*Tugs or other towing vessels.*—It will be observed from the above tables that "rigged" or self-propelled craft fall into the two general classes of tugs or other towing vessels and ferryboats. Tugs or other towing vessels, as the name implies, are boats used in towing other

craft, usually the nonself-propelled, though steamships are handled at piers and frequently towed about the harbor by means of tugs. Some of the tugs are of exceedingly high horsepower and are capable of handling several of the nonself-propelled harbor craft at a time. The number that can be handled is not a fixed ratio to the horsepower of the tug, however, and is dependent upon the tide, the wind, the load of the boats towed, and the ability of the captain in handling his boat and in making use of the tide and wind, as well as upon the horsepower of the tug. The accompanying illustration of a tug towing a loaded car float indicates some of the work performed by tugs.

Harbor tugboats are usually manned by one or two single crews, though some boats carry a double crew. If the tug works days only, one single crew is used. If the tug works day and night, either two single crews are used, in which case one crew leaves the boat when the other crew comes on, or a double crew is used, one crew working while the other sleeps on the boat. On double-crew boats the men usually work on six-hour watches.

The number in the crew varies with the size of the boat. In general, however, a single crew consists of a captain, two deck hands, one cook, one engineer, and two firemen; and a double crew, of one captain, one pilot, four deck hands, one cook, one engineer, one assistant engineer, one oiler, and three firemen.

Although the varying conditions under which harbor towing is performed call for a specialized knowledge in handling the tug and tows, the general character of the work performed by the crew is similar to the work on ocean-going vessels and will be considered only briefly in this article.

The tug is in charge of a licensed captain or pilot who must be at the wheel at all times when the boat is under way unless relieved by a licensed mate. The captain carries out the towing orders of the boat owner and plans the order of assemblies when several boats are to be towed. He must be familiar with the harbor channel and with the location of harbor piers as well as with tide conditions and the rules of navigation. He usually hires the mates, cook, and deck hands, and has disciplinary authority over them.

The mate assists the captain and, if he carries a pilot's license, may relieve him at the wheel.

The deck hands handle the lines on the tug that fasten it to the tow or to the pier or dock. They must clean the deck, polish the brass, paint the woodwork about the deck, and keep the boat clean. If a car float is being towed, a deck hand rides the float to look out for other craft and signal to the captain. Frequently the first deck hand carries a pilot's license and may relieve the captain or pilot.

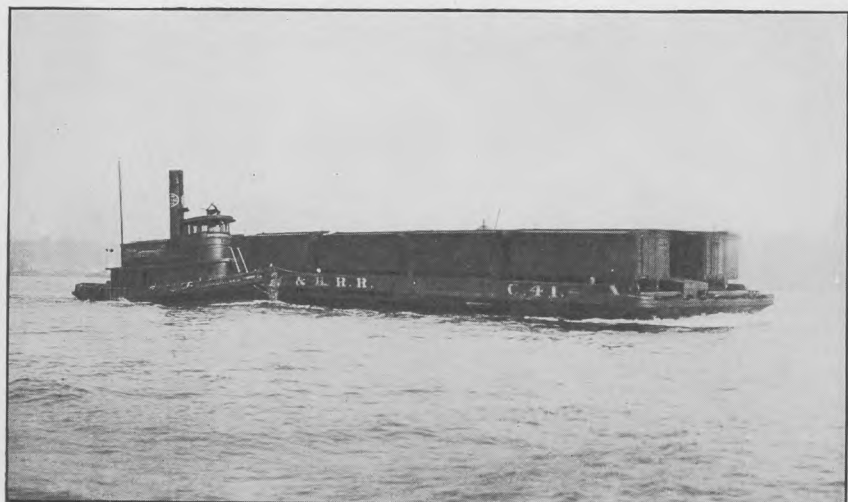


PLATE 1.—TUGBOAT TOWING LOADED CAR FLOAT.



PLATE 2.—FERRYBOAT.

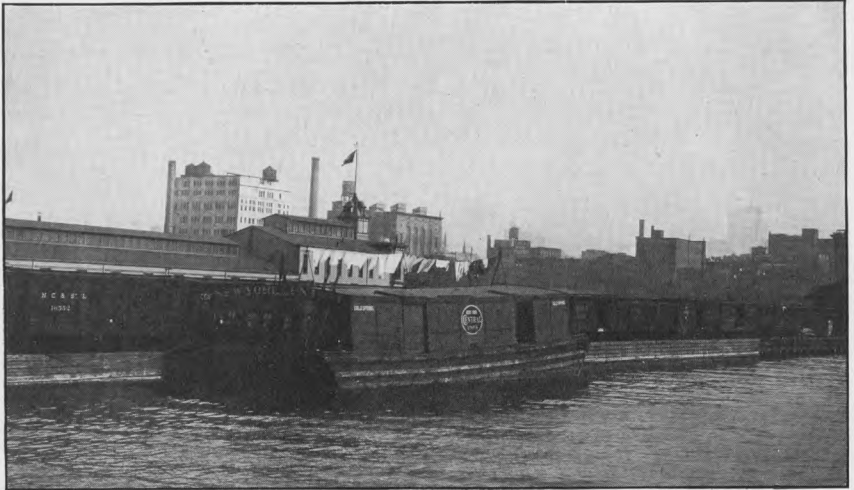


PLATE 3.—COVERED BARGE.

Double-crew boats carry a cook. Single-crew boats carry a cook only if the company feeds the crew. If only one deck hand is employed, the cook assists the deck hand in handling lines in addition to the work of preparing and serving food.

The engineer, who must have a marine license, is in charge of the engine room. He carries out the orders of the captain, but hires and discharges the men in the engine room.

The assistant engineer and oiler aid in keeping the machinery in working order and relieve the engineer.

The duties of the firemen vary somewhat with the equipment of the boat. If the boat is not equipped with the blow system, the firemen must hoist the ash from the engine room. In this they are assisted by the deck hands. On single-crew boats the fireman must be on hand early enough to have steam up before the boat is ready to start and must "bank" the fires at night after the boat is docked.

One other type of self-propelled boat, although differing from tug boats, should be mentioned in the same class because of the character of the work performed and the similarity of crew. Tugboats do not carry freight. A type of boat known as the steam lighter, however, is self-propelled and is equipped to carry freight. The crew is similar to the tugboat crew, and the boat is frequently used to tow non-self-propelled craft.

The number of hours worked per day by crews of tugs or other towing vessels has been fixed in part by custom and agreement and in part by Government regulation. The inspection certificate which each of such boats is required to carry permits the operation of the boat by a single crew for a period not to exceed 13 hours in 24 except in cases of emergency. If a boat is operated by two single crews or by a double crew, the actual time of each crew or shift can not, of course, exceed 12 hours in each 24. Prevailing custom in the harbor has, in the past, fixed 13 hours per day for a single crew, time in excess of this being regarded as overtime. Recently, however, a Government board of arbitration<sup>1</sup> appointed to adjust disputes affecting harbor-boat employees has ruled that time in excess of 12 hours per day shall be regarded as overtime for the crews of tugs and other towing vessels.

By award of the above board of arbitration, all employees of self-propelled boats are entitled to one day off per week, and, if in the employ of the company for one year, one week's vacation per year with pay. Prior to this the licensed officers employed by many of the companies had received one week's vacation annually, but the other men in the crew had not been thus favored. One day off per week or two days per month has been recognized for some time,

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<sup>1</sup> MONTHLY REVIEW, Bureau of Labor Statistics, January, 1918, pp. 230-233.

though in practice it is often difficult to observe. Much of the harbor work is continuous and must be performed every day in the week. If a day off is allowed, a relief or roustabout crew must be provided or else the boat must be tied up. Frequently the men prefer to work the extra day at overtime rates.

*Ferryboats.*—The operation of ferryboats is unlike that of other harbor craft in that the boats move according to schedule and between the same points each trip. The insular location, referred to previously, of the boroughs comprising Greater New York has made it necessary to establish numerous ferry lines for the transfer of passengers and vehicles. The construction of the East River bridges and the Hudson and the Pennsylvania tubes under the Hudson River has lessened the need somewhat for ferries, but they are still used extensively. The following summary tables indicate the relative importance of ferries in New York Harbor and the United States as a whole for the years 1906 and 1916.

TABLE 3.—STATISTICS OF FERRYBOATS OPERATING IN UNITED STATES AND IN THE NEW YORK DISTRICT, COMPARED, 1916 AND 1906.<sup>1</sup>

| District.  | Census year. | Number of ves-sels. | Gross ton-nage. | Value of ves-sels. | Gross in-come. | Num-ber of em-ployees. | Wages.      | Number of pas-sengers carried. |
|--|--------------|---------------------|-----------------|--------------------|----------------|------------------------|-------------|--------------------------------|
| United States.....   | 1916         | 611                 | 224,328         | \$23,227,174       | \$15,414,979   | 4,282                  | \$3,947,836 | 292,177,374                    |
|  | 1906         | 536                 | 261,073         | 29,578,380         | 17,291,073     | 4,519                  | 3,537,180   | 330,737,639                    |
| New York district.....   | 1916         | 125                 | 115,363         | 11,406,884         | 7,118,972      | 1,600                  | 1,669,473   | 144,190,729                    |
|  | 1906         | 152                 | 129,690         | 17,098,677         | 8,423,119      | 1,622                  | 1,578,839   | 208,684,123                    |
| Per cent in New York dis-trict as compared with United States. | 1916         | 20.5                | 51.4            | 49.1               | 46.2           | 37.4                   | 42.3        | 49.4                           |
|  | 1906         | 28.4                | 49.7            | 57.8               | 48.7           | 35.9                   | 44.6        | 63.1                           |

TABLE 4.—STATISTICS OF MUNICIPAL FERRIES OPERATING IN UNITED STATES AND IN THE NEW YORK DISTRICT, COMPARED, 1916 AND 1906.<sup>1</sup>

| District.  | Census year. | Number of ves-sels. | Gross ton-nage. | Value of ves-sels. | Gross in-come. | Num-ber of em-ployees. | Wages.    | Number of pas-sengers carried. |
|--|--------------|---------------------|-----------------|--------------------|----------------|------------------------|-----------|--------------------------------|
| United States.....   | 1916         | 40                  | 25,230          | \$2,755,322        | \$1,817,773    | 570                    | \$638,785 | 26,533,297                     |
|  | 1906         | 29                  | 20,238          | 2,503,447          | 884,952        | 290                    | 453,129   | 20,945,055                     |
| New York district.....   | 1916         | 16                  | 15,471          | 2,107,199          | 1,115,572      | 364                    | 413,908   | 18,748,804                     |
|  | 1906         | 16                  | 14,829          | 2,253,000          | 778,842        | 188                    | 360,169   | 12,521,847                     |
| Per cent in New York dis-trict as compared with United States. | 1916         | 40.0                | 61.3            | 76.5               | 84.7           | 63.9                   | 64.8      | 70.7                           |
|  | 1906         | 55.2                | 73.3            | 90.0               | 88.0           | 64.8                   | 78.6      | 59.8                           |

<sup>1</sup>Figures compiled by the Bureau of the Census of the U. S. Department of Commerce.

As shown previously in Tables 1 and 2, the ferries are operated by railroads, by municipalities, and by other agencies. At the present time from Manhattan there are seven ferry routes to Brooklyn, three to Jersey City, two to Queens, two to Hoboken, and one each to



Astoria, Edgewater, Englewood, Staten Island, and Weehawken. The railroad ferries operate between Jersey City and Manhattan. The most important municipal ferry is between Staten and Manhattan Islands, though the departments of health, charities, correction, docks, and ferries each has ferryboats. The United States Department of Labor operates ferryboats to Ellis Island. The State hospital also operates a ferry. In addition to the above there are a number of ferries operated by private interests.

The crew of a ferryboat consists of a pilot, wheelsman or quartermaster, engineer, assistant engineer, oiler, and fireman. With few exceptions the work of the crew is the same as on a tugboat and needs no further explanation. The wheelsman or quartermaster is assistant to the pilot; the deck hands have the additional duties of opening and closing the gates of the boat and of acting as watchmen. Bridgemen are employed at the slip to place the bridge and secure the boat. Most of the ferries operate continuously day and night, a larger number of boats being used during rush hours. As a consequence men work in shifts. Some of the shifts provide for a straight 8 hours in 24, others are arranged so that a crew works from 12 to 16 hours one day and then has 24 hours off. With the large number of passengers carried, the responsibility of the crew is great and there has been a tendency to reduce the number of hours of continuous service per day.

#### NONSELF-PROPELLED HARBOR CRAFT.

As shown in Table 1, 5,433 or 88.8 per cent of the New York Harbor craft in 1916 were "unrigged" or nonself-propelled. These are of various types according to their uses but may be roughly divided into coal boats, grain boats, scows, covered barges, lighters, and car floats. Illustrations of a lighter equipped with hoisting gear, a car float, a covered barge, and a coal boat have been shown previously.

*Scows.*—The simplest of nonself-propelled harbor boats is the type known variously as scow, scow barge, or open boat. The boat is of solid construction and is particularly adapted to the carrying of rough freight such as crushed stone, block stone, gravel, sand, mud, and similar cargoes. The cargo is carried on deck and is generally exposed. If cargo that requires protection is carried, a tarpaulin is used to cover it. For the most part, the cargo carried by these boats requires little attention either in loading, unloading, or transit.

*Coal boats.*—As explained previously, coal ports are located on the west side of the harbor and coal must be transferred to other parts of the harbor by harbor boats. Boats designed to carry coal have holds extending below the deck. The hold may consist of one compartment or it may be divided into a number of compartments or

bins. In order to prevent damage to the hold by unequal distribution of weight, the boat must be loaded in sections. Hatch covers are usually provided to cover the coal during storms, and in the illustration of a coal boat these covers are shown piled beside the hold. Coal is loaded either from coal chutes as shown in the illustration, or by dumping the coal from the car. The greater part of the unloading is also done by machine power.

*Grain boats.*—In the carrying of loose grain, boats similar in construction to coal boats are used and often coal and grain boats are used interchangeably. It is more important, however, that grain boats be kept dry, and a small leak that would not interfere with the use of a boat for carrying coal would render it unfit for carrying grain. Grain boats are usually loaded from elevators at railway terminals and are unloaded at ship's side by means of floating elevators.

In the same class as the above types of boats may be mentioned also brick boats, mud scows, canal boats, and ice boats constructed with reference to the particular character of cargo to be carried but not differing sufficiently to warrant further description.

All of the above types of nonself-propelled harbor craft are frequently called tidewater boats. The term is not self-explanatory because all boats are towed as much as possible with the tide. It is used, however, to designate those boats that are towed for long distances with the tide as distinguished from the other boats used for trucking shorter distances about the harbor. Each of these boats carries a captain who lives on the boat. The duties of the captain vary somewhat with the type of boat and the nature of the cargo but are sufficiently uniform to apply to all of the tidewater boats.

Rules for the guidance of captains are laid down by a number of companies. Most of these provide that the captain shall not leave his boat without permission from the company. Other rules pertain to the protection of cargo, the care of the boat, and the display of lights. The rules of one of the railroad companies provide that the "Captain must keep deck and hold clean and see that equipment is in perfect order at all times. The cabin must also be kept in a neat condition and care taken to leave no inflammable stuff lying around, as precaution against fire. Bringing intoxicants aboard the boats of this company is prohibited."

The captain is expected to examine his boat for leakage and to pump out any "bilge" water. In case of damage to the boat or cargo, the captain is expected to report the damage and the manner of its occurrence.

Minor repairs to the boat are generally made by the captain, but extensive repairs are made in the company's shops or in dry dock.



The larger companies generally have their boats overhauled and painted once a year, but some of the owners supply the paint and require the captain to paint the boat.

When a captain arrives at a pier with an unloaded boat, or as it is generally called, a light boat, he must report promptly to the office of his company. When the boat is ready to be loaded, the captain must move his boat into the proper berth. This is done usually by hand power, the captain making use of a hand capstan or using a line attached either to a pier or to another boat. At some of the railroad piers, however, tugs act as "shifters" and move the boats from berth to berth as required.

After the boat has been hauled into place, it is ready to be loaded. The captain is expected to supervise the loading of his boat. In the loading of coal and grain, it is frequently necessary to shift the boat to keep different grades of commodities distinct or to distribute the load. The shifting is usually done by mechanical power, but it is necessary for the captain to be on deck to handle the lines. The number of times that a boat is shifted during loading depends upon the arrival of commodities at the pier, the nature and grades of the commodity, and the judgment and ability of the loading superintendent. One of the tug dispatchers was of the opinion that a grain boat had to be shifted about four times before it was completely loaded. Loading is done both day and night and during loading or shifting the captain is required to be on deck.

After the boat is loaded, the captain secures the hatches or other covering provided, obtains his bill of lading and notifies the office that he is ready to be towed. A boat is not always towed immediately when loaded and must often wait until a number of boats are ready to be towed in the same direction. Thus, it may be several hours or days after a boat is loaded before it is towed. During this time the captain must remain on his boat because tug captains refuse to tow a boat that has no captain aboard. During the time that the boat is lying loaded waiting for a tow, the captain may clean his boat or make repairs or put in his time as he wishes. Many captains complain that after killing time all day they are always marked for a night tow.

When a tug approaches to tow the boat, the captain either gives his lines to the deck hand on the tug or takes the lines from him. When the lines are properly fastened, the boat is ready to be towed. Often the boat is simply towed to a nearby pier or to a stakeboat—a boat anchored in the harbor for the purpose of tying other boats to it—and left there until more boats can be brought together to make up a tow. Whenever a tow is made up, or a boat picked up or dropped, the captain must be on deck to fasten and unfasten the lines.

While the boat is being towed, whether night or day, the captain has little to do, but is called upon at any time in case of emergency. Where several boats are towed, the captains can arrange to relieve each other.

On arriving at a pier, the captain must make his boat fast and, if in an exposed place, display the proper signal lights. He then notifies the dock captain, the consignee, or other authorized person, of the boat's arrival. The captain is then given instructions to unload his cargo at a designated berth. If the boat has not been left at this berth, the captain must endeavor to haul his boat into proper position.

The unloading of the boat is usually done by machinery. If done by hand, dock laborers are used. With some cargoes the captain is expected to supervise the unloading and he is occasionally given opportunity to work with the unloading gang and earn something in addition to his regular wages.

When the boat is unloaded, the captain reports to the boat dispatcher or to the office. The boat may lie for several days or weeks waiting for cargo, or it may be loaded immediately. When the boat is lying empty, the captain is usually permitted to go ashore, after reporting at the office.

Without describing modifications of the above procedure, due to the varying types of boats or the different cargoes, it will be apparent that the work of captains is more exacting in time than in physical exertion. He may go for days with little or nothing to do, but he is subject to call both day and night, and there are times, at least, when it is difficult to secure regular rest. Towing must be done with the tide and loading or shifting must be done when cargoes are available. This means that the time of loading, shifting, and towing is irregular. The men are employed by the month, and for the most part do not receive any additional compensation for night work.

*Covered barges.*—From the illustration shown (Plate 3) it will be observed that a covered barge has a permanent structure built on the deck to protect the cargo. The barge resembles a freight car somewhat except that instead of resting on trucks or wheels the superstructure rests on a flat deck boat. Goods are trucked in and piled in tiers much as in a freight car and the boat is used for trucking about the harbor.

A barge captain is in charge of the boat and the conditions of towing, handling the lines, and caring for the boat are not unlike those of the tidewater boats. The length of the haul is generally much shorter, however, and the commodities carried are usually more perishable or require greater protection than the cargoes of the tidewater boats. Some of the barges are equipped with ice hatches

at either end to serve as refrigerators during summer months and with stoves for the winter months to protect the cargo.

The captain of a covered barge is held responsible for his cargo and must protect it against theft and damage. The following two rules for barge captains indicate the larger responsibility as compared with the tidewater captain:

Captains must tally freight, both in loading and discharging, so that he will sign for number of packages actually received aboard, and in discharging require receipts for same number, as he will be held responsible for any shortage. Freight must be signed for showing the condition in which received. Captains must not mark freight or make any changes in marks on either freight or papers unless they receive instructions from boat dispatchers to do so.

When tallying freight, captains will compare with consignee's tallyman frequently, and should any dispute arise, stop work and refuse to make further delivery until count is agreed upon; if necessary, report to this office.

The loading and unloading of a covered barge is usually done by laborers employed by the company or by stevedoring contractors. Where no such labor is provided, the captain hires his own men and pays them for the company. Some companies permit the captain to work with the laborers and receive an allowance in addition to his salary.

The hours of labor of barge captains are more clearly defined than those of tidewater captains, though by no means uniform throughout the harbor. Many of the captains live on their boats either through choice or because required to do so by the company. If the captain lives on his boat he is in much the same position with respect to hours as the tidewater captain, and in the past has seldom received additional compensation for night or Sunday loading, shifting, or towing. Covered barges are not so apt to work nights and Sundays, however, as the coal boats, grain boats, or scows, and it has been customary to grant additional compensation to barge captains for watching valuable cargoes at night.

At the present time the work of barge captains without compensation in addition to their monthly wage rate is restricted to ten hours per day and six days per week. Work in connection with the loading or discharging of cargo in excess of ten hours per day or six days per week is compensated at the rate of time and one-half. If captains are required to be on their boats at night they are also paid for "watching."

*Lighters.*—Many of the nonself-propelled harbor boats are lighters in the sense of "lightering" freight from vessels or moving miscellaneous cargo about the harbor. For the purpose of this article, however, a lighter may be defined as an open-deck boat equipped with a mast and boom for loading and unloading cargo. It differs thus from other nonself-propelled boats chiefly in having machinery for

self loading and unloading. This machinery may be operated by a hand winch, by gasoline, or by steam power. (Plate 4.)

Most of the cargo of a lighter is carried on deck, but a small portion of some cargoes is carried in the hold below deck to give greater stability to the boat. If the cargo on deck needs protection from the weather, a tarpaulin is used as a cover. "You will observe at all times the condition of the weather and see that the cargo is properly protected and covered, being mindful of the fact that you are responsible for the condition of the freight on delivery."

Many of the duties of a lighter captain are similar to those of captains of other nonself-propelled boats and in respect to the tallying, supervision of loading and unloading, and responsibility for the cargo are identical with those of the barge captain. In addition, the lighter captain is "expected to keep his overhead working gear in order and whenever necessary to rig up the gear preparatory to loading and unloading." On lighters equipped with gasoline hoists the captain sometimes operates the engine.

In addition to the captain, some of the lighters carry a mate, and all steam-hoisting lighters carry a stationary hoisting engineer. The engineer must have a boiler license. He takes care of the fires and engines and operates the drums which raise and lower the boom for moving the cargo. The mate assists the captain and may operate the engine of a gasoline hoist. Dock men are employed to handle the cargo and to operate the winch on hand hoists. A guy man is employed to work the drums which swing the boom. The guy man and laborers for handling the cargo, swinging the boom, or operating the hand winch may constitute a gang employed regularly by the company, or they may be hired by the captain as needed. As with barge captains, the lighter captain occasionally is given opportunity to work with the gang of laborers and earn additional wages.

Few of the lighter captains live on the boats. They work usually 10 hours per day and 6 days per week and are paid extra if they are required to remain on the boat at night to watch the cargo or to tow. An additional compensation at the rate of time and one-half is allowed to all hands for time in excess of ten hours per day or six days per week.

*Car floats.*—A car float, as will be apparent from Plate 1, is a boat with a flat deck upon which railroad tracks are laid. It is used to transport loaded and empty cars between railroad terminals on the Jersey shore and railroad stations or private stations in other parts of the port. The capacity of a float is usually from 10 to 16 cars and, like other nonself-propelled boats, must be towed by a tug or other towing vessel. Whether a car float or other nonself-propelled boat shall be employed in transferring a shipment from one side of



PLATE 4.—LIGHTER.



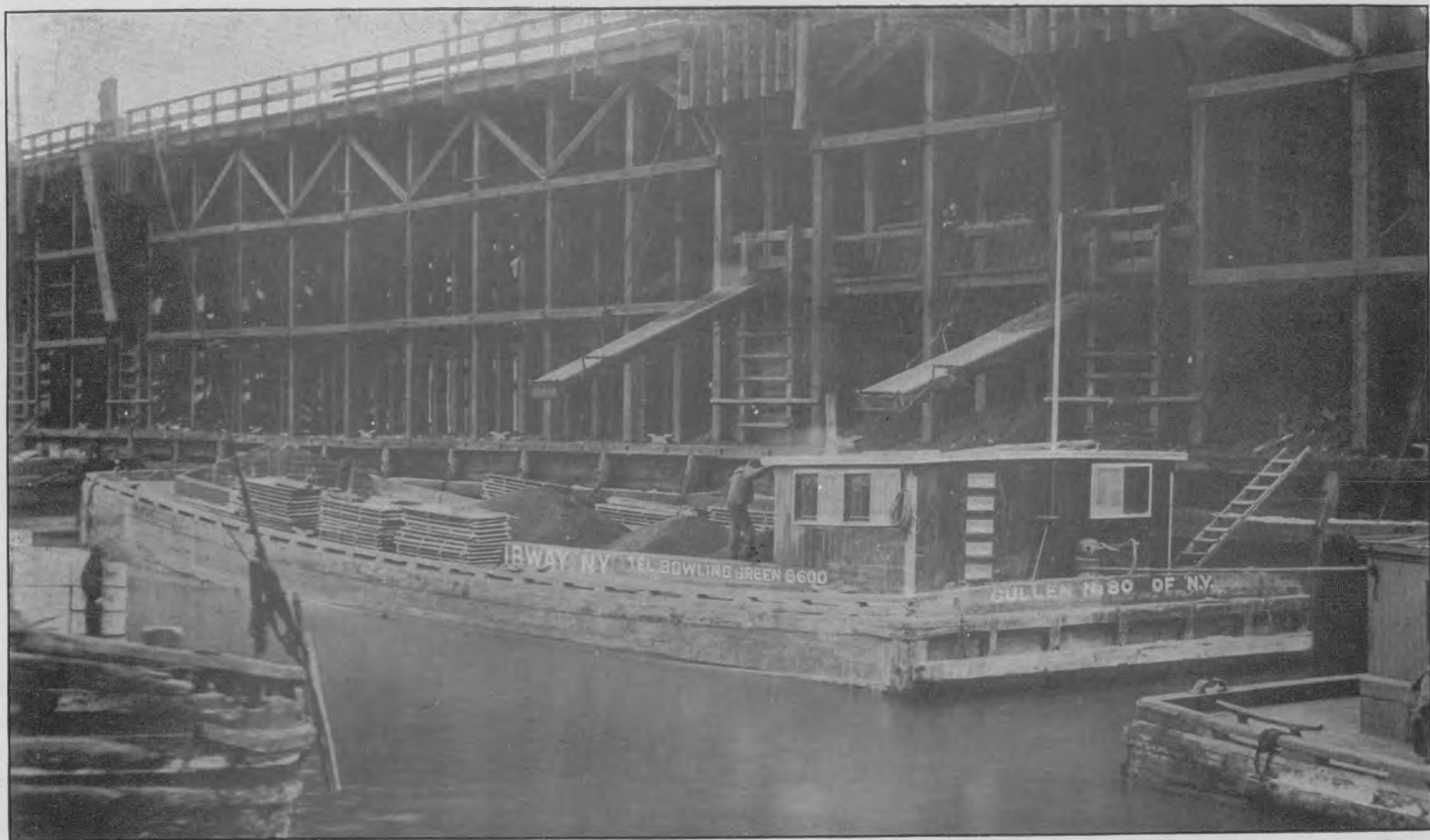


PLATE 5.—COAL BOAT LYING AT DOCK.

the harbor to the other depends upon the nature and volume of the shipment and upon the kind of delivery desired.

One or more men, called float men, are assigned to each car float to see that the cars are properly secured and that the float is in proper position at the float bridge for the transfer of cars between bridge and float. They are usually considered as a part of the tugboat crew. Their hours are the same as those of the tugboat crew, and time in excess of 12 hours per day is regarded as overtime.

#### LIVING CONDITIONS ON NONSELF-PROPELLED HARBOR BOATS.

All nonself-propelled harbor boats are equipped with cabins. The size of the cabin and the number of rooms vary from boat to boat and range from a mere shelter to house the captain during inclement weather to well-built cabins of three or four rooms designed to serve as a permanent home for the captain and his family.

As explained previously, most of the captains of tidewater boats and many of the barge captains live on their boats. The reason for this, from the standpoint of the company, is threefold: First, the standard insurance policy of the Atlantic Inland Association, with which many of the companies are insured, requires that a man be kept on a loaded boat. If the captain lives on the boat, the requirement is met. Second, the captain is more apt to take pride in the appearance of his boat if he makes it his home. This is especially true if he has his family aboard. Third, conditions inherent in the operation of some of these boats such as night towing, shifting, loading, or discharging make it necessary for the captain to be aboard at night and consequently for some sort of living accommodations to be provided on the boat.

Many firms prefer captains who live aboard with their families; some require it. On the employment blank used by one company these questions are asked: "Married or single"; "Number in family"; "Are you willing to live on board with family." This company owns 208 unrigged boats, of which 89 have captains and their families, with children ranging in number from 1 to 10, living on board; 71 have each a captain and his wife but no children living on board, and 48 have each a captain but no family on the boat.

Whether from choice or necessity, the fact remains that a large number of captains of nonself-propelled boats live on these boats, many of them with their families. In order to determine just what the living conditions were, a number of cabins were inspected. The following are given as types rather than in any attempt to depict an average cabin.

The illustration (Plate 6) represents the interior of a one-room cabin on a coal boat, in which the captain lives alone. The cabin

floor is about 4 feet below deck and the roof about 3 feet above deck. It is entered by means of a low and narrow door about  $1\frac{1}{2}$  feet wide by 3 feet high. The interior is about 10 feet wide by 16 feet long. The room has three windows each about 12 by 20 inches. The furniture consists of a bed, a stove, two chairs, and a dish closet. The general impression given is that of dirt and disorder.

Plate 7 also represents the interior of a one-room cabin on a coal boat. Only the captain lives on the boat. The floor of the cabin is about 10 feet below deck. The room is about 12 feet square and has two small windows facing in such a way as to permit little light to enter the cabin. As will be apparent from the illustration, the furniture is chiefly improvised. The bed spring rests on a block of wood. An overturned barrel serves as a table. The stove is furnished by the company. In addition to being dirty and dismal, the room is damp and foul smelling.

Plate 8 represents the combined kitchen and living room of a two-room cabin on a coal boat. This room is about 12 feet square. The other room, about the same size, serves as a bedroom. A captain, his wife, and four children—a girl 3 years old and three boys, 8, 9, and 10 years old—live on the boat. In order to accommodate the family at night a folding bed is set up in the kitchen. The boat and cabin are clean and well kept, but the crowding of six people into two small rooms is wholly undesirable.

Plate 9 represents the living room of a three-room cabin, also on a coal boat. The living room is about 10 by 12 feet; the bedroom and kitchen each about 6 by 6 feet. The bedroom has a bunk built into the side and a cot under the bunk. A folding bed is a part of the furniture of the living room. A family of six live on the boat—the captain, his wife, one girl 17 years old, and three boys, aged 6, 9, and 13 years. In addition to these six, an older son is sometimes at home.

A two-room cabin on a barge shelters a captain, his wife, and seven children. At the time the barge was visited several of the children had the measles. Those who were well should have been isolated, but the cabin was not large enough to permit it.

Two mud scows visited have one-room cabins under the deck for the captains. The boats were old and were constantly full of bilge and rain water. The water from the mud carried on deck dripped down into the cabins, which were damp and dirty.

Quite in contrast with the above is a two-room cabin on a coal boat in which the captain and his wife, a middle-aged couple, live. The boat and cabin are neat and clean, and the couple seem happy and contented. The captain's wife complained, however, that Sunday towing prevented her from attending church services regularly.





PLATE 6.—ONE-ROOM CABIN OF COAL BOAT.



PLATE 7.—ONE-ROOM CABIN OF COAL BOAT.

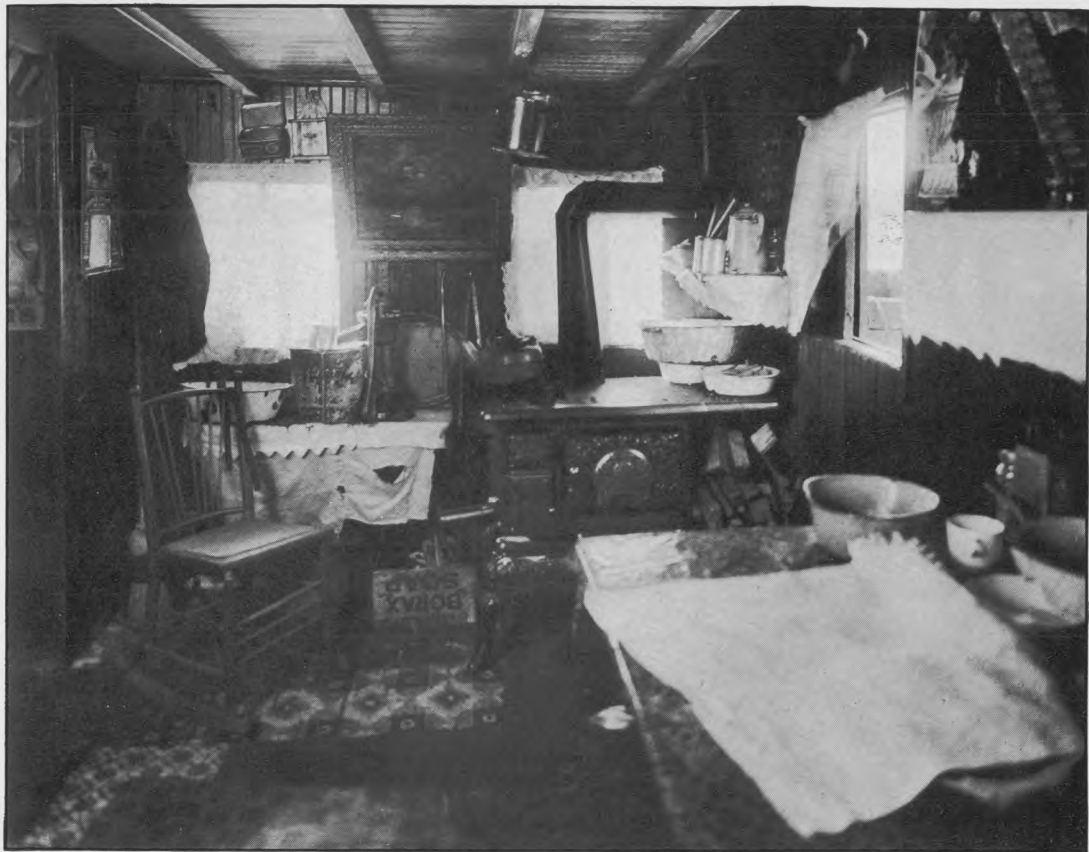


PLATE 8.—COMBINED KITCHEN AND LIVING ROOM OF TWO-ROOM CABIN.



PLATE 9.—LIVING ROOM OF THREE-ROOM CABIN.

A two-room cabin on another coal boat similar in construction to the above presents an entirely different appearance. The captain is a big loud-voiced bully, whose chief complaint is against "shifting" and towing at night and having to paint his boat once a year. His wife is meek and timid. The general appearance of the cabin is that of disorder and discomfort.

One of the covered barges visited had two large rooms on deck. The rooms are large, light, and airy. A captain and his wife live aboard and for them the cabin is ample.

A steam-hoist lighter visited has a cabin about 30 by 50 feet, extending under deck about half the length of the boat. The sitting room is large, light, and well appointed. The bedroom, kitchen, and dining room are on a lower level than the first room; with the exception of the kitchen, they are light and well ventilated. A captain and his wife live on the boat. In order to supply the kitchen with running hot water, the captain has made a connection with the boiler of the steam hoist.

From the above brief descriptions it will be apparent that a great variety of living conditions may be found on the several thousand nonself-propelled harbor boats. For the most part, if not entirely, the one-room cabins are occupied each by the captain alone, and serve him as kitchen, dining room, living room, and bed room. In a two-room cabin, one of the rooms serves as a bedroom, the other for all other purposes. The three-room cabins are usually not much larger than the two-room cabins, though more desirable if there are children on board.

Some of the companies furnish a stove, table, and chairs. A few completely equip the cabins. The greater number of companies, however, furnish nothing in the way of furniture but a stove. One company, owning more than 200 unrigged boats, furnishes nothing. Companies furnishing the least claim that captains are so unreliable and shifting that it would be poor policy on the part of the company to furnish anything that could be moved from the boat or thrown overboard.

It is not the general practice for boat owners to supply the captains of their nonself-propelled boats with coal though a few make it a point to have their tug boats visit the unrigged boats for this purpose. Coal-boat captains usually get their coal from the cargo of the boat without paying for it. In the absence of coal, drift wood, old barrels, and boxes serve as fuel.

Captains are generally supplied with barrels to fill with water for drinking and household use. The barrels may be filled at the piers or the company may have their tugs carry water to these boats. Water can also be bought from water boats at 25 cents per barrel.

On boats where the captain lives alone or where his family is composed of only himself and wife, it is possible to look upon the boat home as not readily avoidable in view of the nature of the captain's work, and upon undesirable living accommodations as a matter for correction and regulation. But where there are children on the boat, the problem can not be thus dismissed. Some of the companies endeavor to place men with families on the boats with the larger number of rooms, but even on the best equipped boats it is to be doubted whether children have that opportunity for normal development which may reasonably be expected. Particularly is this true in the matter of education.

Figures are not available showing the number of barges with children on board, or the number of children. In 1914, however, the board of education of the city of New York inspected 975 barges "of which 536 carried on their business entirely at points within the State of New York, 279 go from New York City to points outside the State, and concerning 160 we have no report." The results are summarized in the following table:

TABLE 5.—NUMBER OF CHILDREN ON BARGES PLYING BETWEEN NEW YORK CITY AND OTHER POINTS.<sup>1</sup>

| Item.                                       | Boats plying between New York City and points— |                         |               |        |
|---|--|-------------------------|---------------|--------|
|   | In New York State.                             | Outside New York State. | Not reported. | Total. |
| Boats without children.....                 | 467  | 202                     | 160           | 829    |
| Boats with children.....                    | 69   | 77                      | .....         | 146    |
| Total boats visited.....                    | 536  | 279                     | 160           | 975    |
| Children not attending school:              |  |                         |               |        |
| Under 7 years of age.....                   | 100  | 89                      | .....         | 189    |
| 7 to 14 years of age.....                   | 17   | 18                      | .....         | 35     |
| 14 to 16 years of age.....                  | 2  | 7                       | .....         | 9      |
| 16 years of age and over <sup>2</sup> ..... | 3  | 4                       | .....         | 7      |
| Total.....                                  | 122  | 118                     | .....         | 249    |
| Children attending school.....              | 27   | 38                      | .....         | 65     |
| Grand total.....                            | 149  | 156                     | .....         | 305    |

<sup>1</sup> Preliminary report of the results of the investigation concerning the attendance at school of children living on barges plying between New York City and other points made by the New York Board of Education in 1914.

<sup>2</sup> One of these children is an epileptic. The others are employed.

In view of the frequent and irregular shifting of these boats, the question naturally arises as to how the children of families living on the boats may be educated. Obviously, three ways are possible. The children may be taught by the parents; they may live ashore after they reach school age; or they may be sent to school from the boat as opportunity permits. As to the first of these ways, it may be said that the parents are often of limited education and in some



cases illiterate. Even if the parents are able to teach the fundamentals, the environment of the boat is wholly unsuited to the proper development of children. For the children to live ashore means either a shore home for the family, that the children live with relatives, or that they be boarded. But obliging relatives are not always available and either of the other two suggested ways means an additional expense probably beyond the means of the captains of these boats. There remains the other alternative, if children are to be educated, of sending them to school from the boat. Where this is done the children go to school from wherever the boat happens to be. When school is out for the day the children call up the company office in order to inquire the location of the boat. They then hasten to the designated place. In the meantime, however, the barge may be shifted and they must go to another point. Moreover, the location of the barge may necessitate crossing railroad tracks or a number of other boats, or it may be even more inaccessible, as on the off-pier side of a steamer. Conditions are particularly bad in this respect at the coal ports. At one of the new coal ports at Staten Island a narrow walk two planks wide must be traversed for a distance of about 300 feet in order to get to the pier. When, however, a barge is lying at a pier other than a coal pier, the barge can be reached in comparative safety. Even going to school in this way means an additional expense for street-car fare unless the school is within walking distance.

On one of the boats visited there were four children. One, a girl, was not old enough to attend school. Two boys, 8 and 9, had never been to school. The other, a boy of 10, had been to school for a time, boarding at the home of a former foreman of the captain. The foreman was now asking \$20 a month for the boy's board, which the father did not feel able to pay. The boat was a tidewater coal boat which made long and irregular trips and it would be impossible for the children to attend school from the boat with any degree of regularity.

On another barge described previously, having four children aged 6, 9, 13, and 17, none were attending school in April, the time of the visit to the barge, though the boys had "attended some during the winter."

Where the family lives ashore, the wife frequently secures work as a janitress or domestic in order to help meet expenses and keep the children in school.

In justice to the captains, it should be said that most of them with children seemed anxious to send the children to school. At the 1917 convention of the International Longshoreman's Association,

with which association many of the nonself-propelled harbor boat captains are affiliated, the following resolution was adopted:

RESOLUTION NO. 112.

Whereas the practice of having small children live on the boats in and around the harbor of New York can result only to their detriment, both morally and physically; and

Whereas many of the captains are compelled to carry their children with them because of the fact that they are paid such miserable wages that no other course is open to them; and

Whereas as a result children are bound to grow up in ignorance and be handicapped for the duties of life: Now therefore be it

*Resolved*, That this convention, through its delegates to the convention of the American Federation of Labor, ask that an investigation be made of these conditions and that efforts be made with the cooperation of the Federal and State authorities to bring into effect a child labor law that will prevent the carrying of children on such boats under the age of 15 years.

The committee to which this resolution was referred recommended concurrence in the above resolution, with the understanding that the legislation be extended, if possible, to apply to all vessel or boat captains who are similarly situated with those of New York concerning whose condition complaint is made.

The recommendation of the committee was adopted.

At the meeting of the executive council of the A. F. of L., held in San Francisco, November 21, it was decided that the subject matter of the above resolution be placed in the hands of the legislative committee of the A. F. of L. with instructions to cooperate with the officers of the A. F. of L. in carrying out the instructions of the convention.

The following table shows the comparative wages paid to employees operating the several types of harbor boats in the port of New York for the years 1914-1918:

TABLE 6.—WAGES OF NEW YORK HARBOR EMPLOYEES.

| Occupation.              | July, 1914. |                              | July, 1915. |                              | July, 1916. |                              | July, 1917. |                              | January, 1918. |                              |
|--------------------------|-------------|------------------------------|-------------|------------------------------|-------------|------------------------------|-------------|------------------------------|----------------|------------------------------|
|                          | Num-ber.    | Rate per month. <sup>1</sup> | Num-ber.    | Rate per month. <sup>1</sup> | Num-ber.    | Rate per month. <sup>1</sup> | Num-ber.    | Rate per month. <sup>1</sup> | Num-ber.       | Rate per month. <sup>1</sup> |
| <i>Tug boats.</i>        |             |                              |             |                              |             |                              |             |                              |                |                              |
| Captain.....             | 128         | \$139.14                     | 135         | \$140.84                     | 135         | \$140.31                     | 176         | \$148.25                     | 173            | \$163.93                     |
| Mate.....                | 37          | 82.86                        | 38          | 82.98                        | 38          | 94.57                        | 44          | 109.59                       | 38             | 128.92                       |
| Engineer.....            | 122         | 127.12                       | 137         | 123.96                       | 139         | 131.23                       | 175         | 139.95                       | 172            | 149.40                       |
| Second engineer.....     | 32          | 83.31                        | 33          | 84.36                        | 33          | 104.61                       | 41          | 121.04                       | 38             | 139.20                       |
| Deckhand.....            | 215         | 59.34                        | 220         | 59.99                        | 228         | 67.44                        | 300         | 75.22                        | 308            | 80.93                        |
| Cook.....                | 91          | 59.12                        | 99          | 56.33                        | 98          | 65.07                        | 122         | 74.42                        | 123            | 80.03                        |
| Fireman.....             | 234         | 61.62                        | 234         | 64.96                        | 251         | 70.87                        | 307         | 79.92                        | 311            | 83.25                        |
| Oiler.....               | 19          | 65.93                        | 21          | 65.97                        | 20          | 73.30                        | 17          | 80.35                        | 18             | 87.89                        |
| <i>Ferry boats.</i>      |             |                              |             |                              |             |                              |             |                              |                |                              |
| Captain.....             | 41          | \$150.73                     | 39          | \$147.69                     | 39          | \$153.50                     | 37          | \$158.94                     | 38             | \$160.95                     |
| Pilot.....               | 53          | 143.34                       | 54          | 143.06                       | 56          | 143.60                       | 55          | 149.30                       | 54             | 152.53                       |
| Mate.....                | 22          | 75.00                        | 21          | 75.00                        | 21          | 74.59                        | 21          | 75.52                        | 21             | 84.48                        |
| Engineer.....            | 104         | 135.54                       | 102         | 135.07                       | 98          | 138.59                       | 96          | 144.24                       | 96             | 146.33                       |
| Engineer, assistant..... | 28          | 134.55                       | 28          | 134.55                       | 21          | 133.55                       | 21          | 135.00                       | 21             | 142.85                       |

<sup>1</sup> Includes board, if board was allowed in addition to wages.



TABLE 6.—WAGES OF NEW YORK HARBOR EMPLOYEES—Concluded.

| Occupation.                                | July, 1914. |                 | July, 1915. |                 | July, 1916. |                 | July, 1917. |                 | January, 1918. |                 |
|--|-------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|----------------|-----------------|
|  | Num-ber.    | Rate per month. | Num-ber.    | Rate per month. | Num-ber.    | Rate per month. | Num-ber.    | Rate per month. | Num-ber.       | Rate per month. |
| <i>Ferry boats—Concluded.</i>              |             |                 |             |                 |             |                 |             |                 |                |                 |
| Deck hand.....                             | 300         | \$60.56         | 281         | \$60.13         | 266         | \$61.88         | 250         | \$62.03         | 256            | \$72.96         |
| Fireman.....                               | 219         | 80.23           | 203         | 79.24           | 201         | 80.05           | 192         | 84.94           | 205            | 94.51           |
| Bridgeman.....                             | 56          | 55.59           | 56          | 55.59           | 56          | 58.30           | 61          | 63.94           | 58             | 69.25           |
| Wheelsman.....                             | 32          | 61.24           | 33          | 61.33           | 37          | 64.66           | 37          | 70.81           | 39             | 80.00           |
| Oiler.....                                 | 62          | 80.01           | 56          | 78.21           | 70          | 81.86           | 58          | 84.39           | 60             | 92.05           |
| Quartermaster.....                         | 24          | 94.16           | 15          | 90.73           | 15          | 90.73           | 11          | 100.76          | 11             | 100.76          |
| Water tender.....                          | 40          | 95.00           | 30          | 95.00           | 30          | 95.00           | 30          | 95.00           | 30             | 110.00          |
| <i>Covered barges.</i>                     |             |                 |             |                 |             |                 |             |                 |                |                 |
| Captain.....                               | 269         | \$55.86         | 300         | \$56.20         | 367         | \$60.36         | 375         | \$65.90         | 392            | \$76.86         |
| <i>Lighters with hoists.</i>               |             |                 |             |                 |             |                 |             |                 |                |                 |
| Captain.....                               | 148         | \$59.86         | 148         | \$61.65         | 167         | \$67.14         | 230         | \$73.75         | 227            | \$80.00         |
| Engineer.....                              | 45          | 76.61.          | 37          | 73.95           | 28          | 85.47           | 59          | 86.39           | 62             | 95.69           |
| <i>Coal boats, grain boats, and scows.</i> |             |                 |             |                 |             |                 |             |                 |                |                 |
| Captain.....                               | 400         | \$46.20         | 420         | \$46.41         | 414         | \$51.38         | 591         | \$60.94         | 596            | \$69.21         |
| <i>Car floats.</i>                         |             |                 |             |                 |             |                 |             |                 |                |                 |
| Float man.....                             | 33          | \$56.60         | 33          | \$56.60         | 31          | \$60.62         | 38          | \$66.18         | 48             | \$78.25         |

## LABOR AND THE WAR.

### PRESIDENT SUSTAINS NATIONAL WAR LABOR BOARD'S DECISION IN TELEGRAPH DISPUTE.

The National War Labor Board on June 1, 1918, adopted a report covering the findings of the section consisting of the joint chairmen, Hon. William H. Taft and Mr. Frank P. Walsh, in the controversy between the Western Union Telegraph Co. and its employees which grew out of complaints of former employees against the company on the ground that they were discharged by the company for belonging to a union called the Commercial Telegraphers' Union of America. The report included certain correspondence between Mr. Taft and the president of the Western Union Telegraph Co. by which an effort was made to effect a settlement of the dispute by compromise. The proposition made by the joint chairman was rejected by the company, and the report concluded with the statement that "in view of the correspondence it does not seem useful to further prolong the mediation. The construction of our principles, as set forth in Mr. Taft's telegram to Mr. Carlton, leads to the conclusion that the Western Union Telegraph Co. should accept this compromise as therein stated. It declines, however, to do so or to submit to the jurisdiction of this board, and no further action of the board is therefore recommended except the publication of this report of the section and the vote of this board upon the report."

On June 11, 1918, the President directed letters, respectively, to Newcomb Carlton, president of the Western Union Telegraph Co., and to Clarence H. Mackay, president of the Postal Telegraph Co., in which he suggested "that decisions of the National War Labor Board should be accepted by both parties to labor disputes." The letter is as follows:

My attention has been called to the fact that the National War Labor Board, after a careful consideration of the questions at issue between the telegraph companies and their employees have arrived at a decision the essential points of which are embraced in the following:

- (1) The employees have a right to join a union if they so desire, and men discharged for joining the union should be reinstated.
- (2) The company should not be required to deal with the union or to recognize it.
- (3) Committees of employees should be recognized in presenting grievances.
- (4) Where employees and employers fail to agree, the question in dispute should be determined by the National War Labor Board.
- (5) The Telegraphers' Union should not initiate strikes or permit its members to initiate them, but should submit all grievances to the National War Labor Board.

I am informed that the representatives of the union are willing to accept this decision, but that the representatives of the telegraph companies have not accepted it.

May I not say that in my judgment it is imperatively necessary in the national interest that decisions of the National War Labor Board should be accepted by both parties to labor disputes? To fail to accept them is to jeopard the interests of the Nation very seriously, because it constitutes a rejection of the instrumentality set up by the Government itself for the determination of labor disputes, set up with a sincere desire to arrive at justice in every case and with the express purpose of safeguarding the Nation against labor difficulties during the continuation of the present War.

All these circumstances being taken into consideration, I do not hesitate to say that it is a patriotic duty to cooperate in this all-important matter with the Government by the use of the instrumentality which the Government has set up. I, therefore, write to ask that I may have your earnest cooperation in this matter, as in all others, and that you will set an example to the other employers of the country by a prompt and cordial acquiescence.

On June 12, Mr. Mackay replied to the President's letter as follows:

In reply to your letter of yesterday, allow me to say that this company has done its very utmost since the beginning of the War to assume its full share of responsibility to the Government and to the public and that, in order to still further show its sincerity and earnest desire to be of service at this time of national trial, we can not but respond to your request that we waive, during the War, our right to discharge employees who join a union, and you may rely upon our doing so.

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#### ORGANIZATION AND FUNCTIONS OF THE WAR LABOR POLICIES BOARD.

Mention has been made in the MONTHLY REVIEW of the organization and functions of the National War Labor Board, of which ex-President William H. Taft and Mr. Frank P. Walsh are joint chairmen.<sup>1</sup> Probably growing out of similarity in name, this board has been confused to some extent with the War Labor Policies Board recently created.<sup>2</sup> The distinction between the two boards may be readily understood when it is explained that the War Labor Policies Board is administrative while the National War Labor Board is judicial. It is a court of appeal where one or more of its enunciated principles is involved in dispute. Its findings are final and binding. It is applying to industry a great body of law formulated and accepted by representatives of organized management and organized labor in this country. The policies board, on the other hand, devotes itself to administrative work. It determines and develops policies for a unified labor administration and will coordinate the various and frequently inconsistent methods of governmental departments which are dealing with the labor problems involved in production. A brief statement of its origin may be pertinent

From time to time since the declaration of war by the United States on April 6, 1917, the various production departments of the Government, including the War Department, the Navy Department, the

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<sup>1</sup> See MONTHLY REVIEW for May, 1918, pp. 54-58; also for June, 1918, pp. 54-56.

<sup>2</sup> See MONTHLY REVIEW for June, pp. 56, 57.

Shipping Board, etc., have organized industrial service sections for the purpose of making a careful study of all conditions affecting labor with a view to exercising some sort of control over hours, wages, and the welfare of those doing war work in Government plants and in private establishments. Each department has handled its own matters with reference to its own requirements. To coordinate and centralize the activities of these industrial service sections and to render their work more effective and mutually helpful to the Government and the workmen engaged on war contracts, the War Labor Administration was created, with Hon. W. B. Wilson, Secretary of Labor, designated as Labor Administrator by the President. The next step taken to bind together all the separate efforts dealing with production of war materials was the establishment, as a part of the War Labor Administration, of the War Labor Policies Board, under the chairmanship of Mr. Felix Frankfurter, of Massachusetts, whose official designation is Assistant to the Secretary of Labor. This policies board is made up of representatives of the War Department, the Navy Department, the War Industries Board, the Shipping Board, the Emergency Fleet Corporation, the Fuel Administration, the Food Administration, and the Railroad Administration. Its chief duties are to consider for war industries all questions involving wages, hours, the supply and distribution of labor, and the standardization of working conditions, to accomplish which it must, among other things, scrutinize provisions in Government contracts affecting industrial relations. The execution of the decisions of the board will be directly in charge of each department represented on the board, so far as the decisions affect that department. To assist the board in formulating the policies to be adopted as governing principles in its administrative work, temporary committees have been appointed, the membership of each being drawn from the branches of the Government represented on the policies board. These committees and the departments represented are as follows:

Committee on inquiry on Government contract clauses affecting industrial relations—War Labor Policies Board, Emergency Fleet Corporation, War Department, Navy Department.

Committee on central recruiting—War Labor Policies Board, Department of Agriculture, Emergency Fleet Corporation, Navy Department, War Department, War Industries Board.

Committee on exemption of skilled laborers—War Labor Policies Board, War Department, Navy Department, Emergency Fleet Corporation.

Committee on centralization of industrial statistics—War Labor Policies Board, War Department, Emergency Fleet Corporation,

Department of Agriculture, Navy Department, Fuel Administration, Shipping Board, War Industries Board.

Committee on standardization of wages and conditions of labor—War Labor Policies Board, Emergency Fleet Corporation, War Industries Board, War Department, Navy Department, Fuel Administration, Shipping Board.

Committee on United States War Industry Badges—War Labor Policies Board, War Industries Board, Shipping Board, Navy Department, War Department, Department of Labor, Committee on Public Information.

So far as appointed on June 15 the members and special advisers of the War Labor Policies Board included the following:

Department of Labor—Felix Frankfurter, professor of law, Harvard University, chairman; Max Lowenthal, assistant to chairman; Miss Mary VanKleeck, director of Women in Industry Service.

War Department—Dr. E. M. Hopkins, assistant to the Secretary of War.

Navy Department—F. D. Roosevelt, Assistant Secretary of the Navy.

Department of Agriculture—G. I. Christie, assistant to the Secretary of Agriculture, in charge of farm labor activities.

War Industries Board—Hugh Frayne, general organizer, American Federation of Labor, New York City.

Fuel Administration—John P. White, ex-president of the United Mine Workers of America.

Shipping Board—Robt. P. Bass, ex-governor of New Hampshire.

Emergency Fleet Corporation—Charles Piez, general manager.

Food administration—M. B. Hammond, professor of economics and sociology, Ohio State University.

Railroad Administration—W. I. Tyler, assistant director, Division of Operations.

Committee on Public Information—W. L. Chenery, Chicago.

Executive secretary—George L. Bell, San Francisco.

Industrial adviser—Herbert F. Perkins, Chicago.

Labor adviser—John R. Alpine, vice president, American Federation of Labor.

Economic adviser—L. C. Marshall, dean, University of Chicago.

As to the purposes and proposed operation of the War Labor Policies Board, Mr. Frankfurter has issued the following statement:

A central administrative control of its various activities is maintained by each private industrial employer in the country. The products of a single corporation may include soap, butterine, and dressed beef, each produced in plants far distant from one another. Nevertheless, the control over all of them is exercised from a central point where policies to govern all the plants are determined, and, most of all, the questions concerning the relations of the corporation with its employees.

Since the outbreak of the War, the United States Government has come to be the greatest single employer of labor in the country. Its plants are scattered North and West and South and East. The number of workers ultimately involved in the fulfillment of its orders runs into the millions. But it has had no operating policy with regard to the plants as a whole. Each one has been operated individually as a separate enterprise, quite apart from the others and, so far as the labor supply has been concerned, in actual competition with the others.

A plant working on an important order for the War Department, for instance, has suddenly discovered that half its working force has disappeared, because a plant in

the neighborhood engaged upon orders for another department has offered a higher rate of pay for this or that class of labor. The labor turnover, the loss of motion and of production, because of this condition of affairs has been notoriously wasteful. The inducement has been created all over the country for men working in one industry to change their jobs and go where more money was obtainable, as a matter of fact, where it was offered to entice them away. It is, of course, too much to ask men not to leave their jobs under such circumstances. The difficulty is not with the men. It resides in the absence of any agency of government charged with the removal of causes of industrial instability and with the establishment of standards for industry as a whole. The Government assumed command of the physical machinery of industry, but in failing to centralize direction of the industrial personnel the harmony of operation it sought was destroyed. There being no machinery to prevent employers from wasteful competition for the labor supply, no adjustment of the labor resources to the productive needs of the country, it is not strange that labor seemed to become scarce and that industry suffered severe dislocation.

It is to remove these evils besetting the effort to attain and maintain maximum of production for the prosecution of the War that the new machinery has been set up by Secretary of Labor Wilson.

The War Labor Policies Board and the board representing the various bureaus of the Labor Department will constitute a dovetailing process linking up every agency of the Government whose activities in any way involve the employment or the direction of labor. The policies board will be representative of the War Department, the Navy Department, the Department of Agriculture, the Shipping Board, the Food Administration, the Fuel Administration, the Emergency Fleet Corporation, the Railroad Administration, and the War Industries Board. Its functions, while in a sense technical, will be thoroughly administrative, inasmuch as its decisions will be carried out by the departments and agencies represented in its membership.

In the matter of wages it will not attempt to set a flat rate for any one craft or trade in the country as a whole; but it will fix standards to be determined for all industries in a given section of the country after investigations disclosing the conditions of life, including the cost of living and the service rendered. The facts will be ascertained justly and comprehensively from information to be sought from the workers' own organization, private employers and their organizations, Government bureaus, and wherever else exact knowledge may be secured.

We must husband our labor supply, so as to satisfy the war needs of the country to the fullest possible practical extent. It is necessary, therefore, that the sources of supply be wisely directed and employed. With respect to this phase of the industrial problem it will be the function of the war policies board to allocate the supply according to the productive needs of the country. Under decisions of the board on this score it will be impossible for one industry to draw the labor supply from another unless it has been regularly determined that the first industry has a higher claim upon the supply on the basis of a more pressing Government need than the industry from which it would draw the workers. This question will of course be determined by the war policies board. But by the establishment of standardized wage conditions the incentive for workers to leave one industry and go to another will have been removed anyhow.

In addition to controlling the labor supply by the methods just reviewed the policies board will also regulate hours of labor in the various industries and determine the needs of industry with regard to housing and transportation facilities, etc.

The need of the hour is production, the fullest munitioning, equipment, and feeding of the forces at the front. Labor, industrial managers, and Government officials are all heartily united to bring about this end. There will be the utmost pooling, not only of the industrial resources but of the resources of good will and intelligence, and in this spirit the work will proceed efficiently. There is much to be done, but it will be done because it must be done.



The War Labor Policies Board has instructed its committee on standardization of wages and labor conditions to effect, in consultation with representatives of labor and of employers, the stabilization of wages paid by Government departments and contractors engaged on war work, the board requesting, in a resolution previously adopted, that in the meantime the departments withhold contemplated wage changes. The following is the resolution passed by the policies board pertaining to standardization of wages:

Whereas the recent uncoordinated activities of Government contractors in the matter of hiring labor for war industry have resulted in competitive bidding by one contractor against another for the available labor at any scale deemed expedient for the occasion, which has resulted in producing restlessness and wasteful movement of labor from one industry to another; and whereas it is absolutely essential to the stabilization of industry throughout the United States that all wages for both skilled and unskilled labor engaged in war work be standardized: Therefore be it resolved, That wages paid by Government departments and contractors engaged in war work should, after conference with representatives of labor and by industrial management, be stabilized by this board; that the committee on standardization is hereby instructed to proceed with its work with all possible expedition, and that as soon as such standardized scales are established the full influence and authority of all departments of the Government represented on this board will be exercised to maintain them.

#### INDUSTRIAL COUNCILS IN GREAT BRITAIN.<sup>1</sup>

The Ministry of Labor has prepared and issued a leaflet (H. Q. 7 B), entitled "Industrial councils: The recommendations of the Whitley report." The leaflet gives a brief outline of the principal recommendations of the report, and it has been issued with a view to making these recommendations as widely known as possible among the members of employers' and workpeople's associations and among the general public. The sections of the leaflet deal with "The Whitley committee," "Objects of the Whitley report," "The recommendations," "Industrial councils and the Government," "Constitution of industrial councils," "Works committees," "The need for industrial councils," and "Procedure."

The sections of the leaflet dealing with "Industrial councils and the Government" and "The need for industrial councils" are as follows:

##### INDUSTRIAL COUNCILS AND THE GOVERNMENT.

The primary object of industrial councils, then, is to regularize the relations between employers and employed. But they will serve another urgent need, and in so doing will give to workpeople a status in their respective industries that they have not had hitherto. There is a large body of problems which belong both to industry and to politics. They belong to politics because the community is responsible for their solution and the State must act if no other provision is made; they belong to industry because they can be solved only by the knowledge and experience of the people

<sup>1</sup> Labour Gazette, London, May, 1918, p. 174.

actually engaged in industry. Such problems are the regularization of employment, industrial training, utilization of inventions, industrial research, the improvement of design and quality, legislation affecting workshop conditions—all of them questions which have hitherto been left in the main to employers, but which in reality constitute an important common interest on the basis of which all engaged in an industry can meet. The termination of the War will bring with it a mass of new problems of this nature; for example, demobilization, the training of apprentices whose apprenticeship was interrupted by military service, the settlement in industry of partially disabled men, and, in general, the reconversion of industry to the purposes of peace. It is urgently necessary that the Government should be able to obtain without delay the experience and views of the people actually in industry on all these questions. It proposes, therefore, to treat industrial councils as standing consultative committees to the Government and the normal channel through which it will seek the experience and advice of industries. Further, many of these problems can be handled by each industry for itself, provided that it has an organization representative of all sections and interests within it. The establishment of industrial councils will therefore make unnecessary a large amount of "Government interference," which is at present unavoidable, and substitute for it a real measure of "self-government" in industry.

#### THE NEED FOR INDUSTRIAL COUNCILS.

While there is no doubt that every industry has problems which can be solved only if the experience of every grade and section of the industry is brought to bear on them, hitherto the tendency has been for every grade and section to go its own way. Whenever the Government wishes to ascertain the needs and opinions of an industry, instead of one organization speaking with a single voice, a dozen organizations speak with a dozen voices. The different sections and interests are organized and can put their point of view; the industry as a whole has no representative organization, so that the general interest of the industry may be overlooked. Sectional interests often conflict; there is no need for example to disguise the conflict of interests between employers and employed; and the Whitley report proposes nothing of the nature of compulsory arbitration, nothing that will limit or interfere with the right to lock out or strike. But no one in industry wants an unnecessary stoppage; these can be prevented only by the representatives of conflicting interests meeting to thrash out their differences; and all the problems that will face industry after the War call for continuous consultation and cooperation of all sections, grades, and interests. For every reason, therefore, industrial councils, fully representative of all sections and interests in each industry, are an urgent necessity.

In some industries there exist already joint conciliation boards performing some of the functions of industrial councils. These are, however, as a rule, limited either in the work they undertake or in the sections of the industry which they represent. Although, therefore, existing joint boards will in many cases provide the basis for industrial councils, they can not handle the problems referred to above with which the industries of the country will be faced after the War. What is needed is an organization representing the whole industry and capable of speaking for all the firms and all the workpeople employed in it. The Government's adoption of the Whitley report is simply an invitation to the industries of the country to organize themselves in this way, for their own benefit and for the benefit of the community.

## PROVISION FOR THE DISABLED AND VOCATIONAL EDUCATION.

### GOVERNMENT PROVIDES FOR VOCATIONAL REHABILITATION OF SOLDIERS AND SAILORS.

The act (S. 4557) to provide for vocational rehabilitation and return to civil employment of disabled persons discharged from the military or naval forces of the United States, which was passed by the Senate May 25, 1918, and by the House of Representatives on June 10, was approved by the President on June 27. This bill places in the hands of the Federal Board for Vocational Education the duty of furnishing every disabled soldier and sailor who, upon his discharge, is unable to carry on a gainful occupation or to resume his former occupation or to enter upon some other occupation, or having resumed or entered upon such occupation is unable to continue the same successfully, suitable courses of vocational rehabilitation to be prescribed and provided by the board. Compensation is to be paid while the instruction is in progress. The following gives in full the provisions of the bill:

*Be it enacted, etc.,* That this act shall be known as the Vocational Rehabilitation Act; that the word "board," as hereinafter used in this act, shall mean the "Federal Board for Vocational Education;" that the word "bureau," as hereinafter used in this act, shall mean the "Bureau of War-Risk Insurance."

SEC. 2. That every person who is disabled under circumstances entitling him, after discharge from the military or naval forces of the United States, to compensation under Article III of the act entitled, "An act to amend an act entitled an act to authorize the establishment of a Bureau of War-Risk Insurance in the Treasury Department," approved October sixth, nineteen hundred and seventeen, hereinafter referred to as "said act," and who, after his discharge, in the opinion of the board, is unable to carry on a gainful occupation, to resume his former occupation, or to enter upon some other occupation, or having resumed or entered upon such occupation is unable to continue the same successfully, shall be furnished by the said board, where vocational rehabilitation is feasible, such course of vocational rehabilitation as the board shall prescribe and provide.

The board shall have power, and it shall be its duty, to furnish the persons included in this section suitable courses of vocational rehabilitation to be prescribed and provided by the board, and every person electing to follow such a course of vocational rehabilitation shall, while following the same, receive monthly compensation equal to the amount of his monthly pay for the last month of his active service, or equal to the amount to which he would be entitled under Article III of said act, whichever amount is the greater. If such person was an enlisted man at the time of his discharge, for the period during which he is so afforded a course of rehabilitation his family shall

receive compulsory allotment and family allowance according to the terms of Article II of said act in the same manner as if he were an enlisted man, and for the purpose of computing and paying compulsory allotment and family allowance his compensation shall be treated as his monthly pay: *Provided*, That if such person willfully fails or refuses to follow the prescribed course of vocational rehabilitation which he has elected to follow, in a manner satisfactory to the board, the said board in its discretion may certify to that effect to the bureau and the said bureau shall, during such period of failure or refusal, withhold any part or all of the monthly compensation due such person and not subject to compulsory allotment which the said board may have determined should be withheld: *Provided, however*, That no vocational teaching shall be carried on in any hospital until the medical authorities certify that the condition of the patient is such as to justify such teaching.

The military and naval family allowance appropriation provided for in section 18 of said act shall be available for the payment of the family allowances provided by this section, and the military and naval compensation appropriation provided for in section 19 of said act shall be available for the payment of the monthly compensation herein provided. No compensation under Article III of said act shall be paid for the period during which any such person is furnished by said board a course of vocational rehabilitation except as is hereinbefore provided.

SEC. 3. That the courses of vocational rehabilitation provided for under this act shall, as far as practicable and under such conditions as the board may prescribe, be made available without cost for instruction for the benefit of any person who is disabled under circumstances entitling him, after discharge from the military or naval forces of the United States, to compensation under Article III of said act and who is not included in section 2 hereof.

SEC. 4. That the board shall have the power and it shall be its duty to provide such facilities, instructors, and courses as may be necessary to insure proper training for such persons as are required to follow such courses as herein provided; to prescribe the courses to be followed by such persons; to pay, when in the discretion of the board such payment is necessary, the expense of travel, lodging, subsistence, and other necessary expenses of such persons while following the prescribed courses; to do all things necessary to insure vocational rehabilitation; to provide for the placement of rehabilitated persons in suitable or gainful occupations. The board shall have the power to make such rules and regulations as may be necessary for the proper performance of its duties as prescribed by this act, and is hereby authorized and directed to utilize, with the approval of the Secretary of Labor, the facilities of the Department of Labor, in so far as may be practicable, in the placement of rehabilitated persons in suitable or gainful occupations.

SEC. 5. That it shall also be the duty of the board to make or cause to have made studies, investigations, and reports regarding the vocational rehabilitation of disabled persons and their placement in suitable or gainful occupations. When the board deems it advisable, such studies, investigations, and reports may be made in cooperation with or through other departments and bureaus of the Government, and the board in its discretion may cooperate with such public or private agencies as it may deem advisable in performing the duties imposed upon it by this act.

SEC. 6. That all medical and surgical work or other treatment necessary to give functional and mental restoration to disabled persons prior to their discharge from the military or naval forces of the United States shall be under the control of the War Department and the Navy Department, respectively. Whenever training is employed as a therapeutic measure by the War Department or the Navy Department a plan may be established between these agencies and the board acting in an advisory capacity to insure, in so far as medical requirements permit, a proper process of training and the proper preparation of instructors for such training. A plan may also be established

between the War and Navy Departments and the board whereby these departments shall act in an advisory capacity with the board in the care of the health of the soldier and sailor after his discharge.

The board shall, in establishing its plans and rules and regulations for vocational training, cooperate with the War Department and the Navy Department in so far as may be necessary to effect a continuous process of vocational training.

SEC. 7. That the board is hereby authorized and empowered to receive such gifts and donations from either public or private sources as may be offered unconditionally. All moneys received as gifts or donations shall be paid into the Treasury of the United States, and shall constitute a permanent fund, to be called the "Special fund for vocational rehabilitation," to be used under the direction of the said board in connection with the appropriations hereby made or hereafter to be made to defray the expenses of providing and maintaining courses of vocational rehabilitation; and a full report of all gifts and donations offered and accepted, and all disbursements therefrom, shall be submitted annually to Congress by said board.

SEC. 8. That there is hereby appropriated, out of any money in the Treasury of the United States not otherwise appropriated, available immediately and until expended, the sum of \$2,000,000, or so much thereof as may be necessary, to be used by the Federal Board for Vocational Education for the purposes of this act, to wit, for renting and remodeling buildings and quarters, repairing, maintaining, and equipping same, and for equipment and other facilities necessary for proper instruction of disabled persons, \$250,000; for the preparation of instructors and salaries of instructors, supervisors, and other experts, including necessary traveling expenses, \$545,000; for traveling expenses of disabled persons in connection with training and lodging, subsistence, and other necessary expenses in special cases of persons following prescribed courses, \$250,000; for tuition for disabled persons pursuing courses in existing institutions, public or private, \$545,000; for the placement and supervision after placement of vocationally rehabilitated persons, \$45,000; for studies, investigations, reports, and preparation of special courses of instruction, \$55,000; for miscellaneous contingencies, including special mechanical appliances necessary in special cases for disabled men, \$110,000; and for the administrative expenses of said board incident to performing the duties imposed by this act, including salaries of such assistants, experts, clerks, and other employees in the District of Columbia or elsewhere as the board may deem necessary, actual traveling and other necessary expenses incurred by the members of the board and by its employees under its orders, including attendance at meetings of educational associations and other organizations, rent and equipment of offices in the District of Columbia and elsewhere, purchase of books of reference, law books, and periodicals, stationery, typewriters and exchange thereof, miscellaneous supplies, postage on foreign mail, printing and binding to be done at the Government Printing Office, and all other necessary expenses, \$200,000.

SEC. 9. That the said board shall file with the Clerk of the House and the Secretary of the Senate on July first and every three months thereafter, for the information of the Congress, an itemized account of all expenditures made under this act, including names and salaries of employees. Said board shall also make an annual report to the Congress of its doings under this act on or before December first of each year.

SEC. 10. That section three hundred and four of the act entitled "An act to authorize the establishment of a Bureau of War-Risk Insurance in the Treasury Department," approved September second, nineteen hundred and fourteen, as amended, is hereby repealed.

SEC. 11. No person of draft age, physically fit for military service, shall be exempted from such service on account of being employed under the terms of this act.

Approved, June 27, 1918.



## WHAT BECOMES OF MEN CRIPPLED IN INDUSTRY?

BY CARL HOOKSTADT.

SCOPE AND METHOD.

The proper replacement of our permanently disabled soldiers and sailors in civil employments is becoming an increasingly important war problem of the Federal Government. The department responsible for the reestablishment of these crippled men will be confronted with many difficulties. For the purpose of throwing some light upon this problem the bureau made a study of industrial accidents in order to ascertain just what effect the more serious permanent partial disabilities have had upon the occupational opportunities of the injured men. The main emphasis was laid upon the character of the industry; the occupation of the employee at the time of the injury, upon his return to work, and at the present time; the length of time totally disabled; the employee's wages at the time of the injury and upon his return to work; and the age, nationality, and English-speaking ability of the employee.

Massachusetts was selected as the field of study because under the law of this State compensation for all partial disabilities must be paid until the employee is reemployed at the same or higher wage than that received at the time of the injury. Thus a longer and more complete record of the cases is available. Because of the urgency of the problem the investigation was limited to injuries resulting in amputation or loss of use of a hand, arm, foot, or leg. Three years' experience under the compensation act (July 1, 1913, to June 30, 1916) were deemed sufficient to furnish an accurate and trustworthy picture of the economic problem confronting one-armed and one-legged men in industry. Fortunately the period covered included both a period of abnormal industrial depression and one of abnormal industrial activity. Every case for which records were available in the office of the Massachusetts Industrial Accident Board was scheduled, special precaution being taken to exclude the element of selection. The total number of compensation cases considered was 123, of which 118 involved males and 5, females. In addition some 35 noncompensation cases, mostly of railroad accidents, were scheduled, but these are not included in the following analysis. It is believed that the 123 cases are truly representative and constitute a sufficient exposure to furnish dependable conclusions.

The following method of investigation was adopted: All available information in the files of the industrial accident board was first utilized. The schedules were then submitted to the insurance companies for additional information, after which personal investigation of each case was attempted. Some of the injured men had



left the country, others could not be found, while several, living in remote corners of the State, were not visited. In a large proportion of the cases, however, a fairly complete history from the date of injury to the present time was obtained.<sup>1</sup>

The 123 injuries were distributed as follows: Loss of hand, 50; arm, 46; foot, 10; leg, 17. As stated before, loss means loss of use as well as loss by severance or amputation.

#### FINDINGS OF FACT.

*Period of total disability.*—The investigation developed two important facts relative to the length of total disability resulting from these types of injuries. One is the relatively greater severity of the foot and leg injuries over those of the hand and arm, and the other is the unexpectedly long period of disability in all cases. The average length of total disability for the 123 cases was 15.9 months. Of these the average for the 96 hand and arm cases was 13.4 months, while the average for the 27 foot and leg cases was 24.8 months. There was little difference as regards disability period between the hand and arm injuries on the one hand and foot and leg injuries on the other. Moreover, from the description of the case, it was impossible in many instances to differentiate accurately between hand and arm or foot and leg cases. The disabilities stated are the actual minimum. Nineteen of the men were still disabled and unemployed at the time of the investigation, 10 of whom are probably permanently incapacitated. Also in about 40 cases, following the granting of lump sums, the injured man either returned to his native country or disappeared and could not be traced. It is reasonable to assume that many of these were disabled and unemployed for a considerable period after the lump sum was granted and the case closed.

The distribution according to length of total disability is shown by the following table:

DISTRIBUTION OF INJURIES, BY PERIOD OF TOTAL DISABILITY.

| Period of total disability. | Number.       |               |        | Per cent.     |               |        |
|-----------------------------|---------------|---------------|--------|---------------|---------------|--------|
|                             | Hand and arm. | Foot and leg. | Total. | Hand and arm. | Foot and leg. | Total. |
| Under 5 months.....         | 15            | .....         | 15     | 16            | .....         | 12     |
| 5 and under 7 months.....   | 14            | 1             | 15     | 14            | 4             | 12     |
| 7 and under 9 months.....   | 15            | .....         | 15     | 16            | .....         | 12     |
| 9 and under 12 months.....  | 12            | 3             | 15     | 12            | 11            | 12     |
| 12 and under 18 months..... | 15            | 7             | 22     | 16            | 26            | 18     |
| 18 and under 24 months..... | 8             | 7             | 15     | 8             | 26            | 12     |
| 24 months and over.....     | 17            | 9             | 26     | 18            | 33            | 21     |
| Total.....                  | 96            | 27            | 123    | 100           | 100           | 100    |

<sup>1</sup> Acknowledgment is here made of the generous cooperation rendered by the Massachusetts Industrial Accident Board and insurance companies.

It will be noted that in over one-half of the cases (51 per cent) the total disability period was 1 year or over and in 21 per cent 2 years or over. The table also shows that injuries resulting in loss of the lower extremities are much more severe than those resulting in the loss of a hand or arm. Of the former injuries 59 per cent caused total disability of 18 months or more, while of the latter only 26 per cent caused disability for a similar period.

Classification of cases into age groups substantiates the common belief that the loss of an arm or leg by an old man is much more serious from a medical and economic viewpoint than a similar loss by a younger man. Of the 123 injured men studied 87 were under 45 years of age and 36 were 45 or over. The average total disability for those under 45 was 13 months, whereas the average for those 45 years or over was 23 months. Moreover, 10 of the 14 men still receiving compensation and all of the permanently disabled were in the latter group.

*Summary history of the injured men.*—The industrial consequences resulting from the injuries are roughly shown in the following table. A brief account of each case in which the injured man returned to work is given in an appended table on pages 48 and 49.

|  |                 |
|--|-----------------|
| Still disabled and unemployed.....   | <sup>1</sup> 19 |
| Returned to work and still working.....  | 40              |
| Returned to native country.....  | <sup>2</sup> 12 |
| Intended to return to native country; presumably did so.....                         | 7               |
| Went into business.....  | 6               |
| Intended to go into business.....  | 4               |
| Met accidental death while disabled.....   | 1               |
| Insane.....  | 1               |
| Student in high school.....  | 1               |
| Married shortly after injury (female).....   | 1               |
| Returned to work but left employment; whereabouts unknown.....                       | 11              |
| Lump sum granted; whereabouts unknown.....   | 19              |
| Board discontinued compensation because man would not work; whereabouts unknown..... | 1               |
| Total.....   | 123             |

<sup>1</sup> 14 are still receiving compensation for total disability.

<sup>2</sup> 1 moved to another State.

*Classification by industry.*—The number of men injured and re-employed classified according to industry is shown in the following table:

NUMBER AND PER CENT OF INJURED AND REEMPLOYED EMPLOYEES CLASSIFIED BY INDUSTRY.

| Industry.                       | Number injured. | Returned to same employer. |           |
|---------------------------------|-----------------|----------------------------|-----------|
|                                 |                 | Number.                    | Per cent. |
| <b>Manufacturing:</b>           |                 |                            |           |
| Textiles.....                   | 29              | 11                         | 38        |
| Metal and machine tools.....    | 17              | 12                         | 71        |
| Rubber goods.....               | 8               | 5                          | 62        |
| Paper and books.....            | 7               | 5                          | 71        |
| Woodworking.....                | 7               | 1                          | 14        |
| Shoes and heels.....            | 3               | .....                      | .....     |
| Bakery and confectionery.....   | 3               | 2                          | 67        |
| Miscellaneous.....              | 10              | 4                          | 40        |
| Total.....                      | 84              | 40                         | 48        |
| <b>Nonmanufacturing:</b>        |                 |                            |           |
| Trucking and teaming.....       | 10              | 1                          | 10        |
| Contracting.....                | 11              | 2                          | 18        |
| Printing and lithographing..... | 3               | 1                          | 33        |
| Shipbuilding.....               | 2               | .....                      | .....     |
| Laundry.....                    | 2               | 1                          | 50        |
| Miscellaneous.....              | 11              | 3                          | 27        |
| Total.....                      | 39              | 8                          | 21        |
| Grand total.....                | 123             | 48                         | 39        |

The character of the industry determines to a considerable extent whether the injured man is reemployed in the same industry or by the same employer. Of the 123 injuries, 84 were sustained in manufacturing industries and 39 in nonmanufacturing industries. Of those injured in manufacturing, 40, or 48 per cent, returned to the same employer, whereas only 21 per cent of those injured in nonmanufacturing industries were so reemployed. Machinery manufacturing establishments show the highest percentage (71) of reemployment. This is due mainly to two reasons: First, the employees are usually highly skilled, and because of this fact are more readily reemployable; second, because of the nature of work, employments for this type of disabled man can be more easily created or already exist. On the other hand, employers in the contracting and trucking business show the lowest percentage (14) of reemployments. The character of the work and the small size of the establishment account chiefly for the nonemployment in these industries.

*Reemployment classified according to degree of skill.*—That the opportunity for reemployment varies directly with the degree of occupational skill is brought out in the table following.

## REEMPLOYMENT OF INJURED EMPLOYEES CLASSIFIED ACCORDING TO DEGREE OF SKILL.

| Classification.  | Number of employees injured. | Employees reemployed. |           |
|------------------|------------------------------|-----------------------|-----------|
|                  |                              | Number.               | Per cent. |
| Skilled.....     | 55                           | 35                    | 64        |
| Semiskilled..... | 31                           | 12                    | 39        |
| Unskilled.....   | 37                           | 11                    | 30        |
| Total.....       | 123                          | 58                    | 47        |

<sup>1</sup> Of these, 48 were reemployed by same employer and 10 were not.

The great disparity in opportunity for reemployment between the skilled and unskilled is further illustrated in the following table, showing the number reemployed in specified occupations.

## REEMPLOYMENT IN SPECIFIED OCCUPATIONS.

| Classification.                | Number injured. | Number reemployed. | Per cent reemployed. |
|--------------------------------|-----------------|--------------------|----------------------|
| <b>Skilled:</b>                |                 |                    |                      |
| Machinist.....                 | 9               | 5                  | 55                   |
| Carpenter.....                 | 4               | 1                  | 25                   |
| Engineer.....                  | 3               | 2                  | 67                   |
| Total.....                     | 16              | 8                  | 50                   |
| <b>Semiskilled (textiles):</b> |                 |                    |                      |
| Picker tender.....             | 7               | 2                  | 29                   |
| Card tender.....               | 10              | 4                  | 40                   |
| Total.....                     | 17              | 6                  | 35                   |
| <b>Unskilled:</b>              |                 |                    |                      |
| Laborer.....                   | 12              | 1                  | 8                    |
| Helper.....                    | 5               | 1                  | 20                   |
| Total.....                     | 17              | 2                  | 12                   |

It will be noted that over one-half of the machinists were reemployed whereas only 2 of the 17 laborers and helpers were reemployed.

*Occupations before and after injury.*—Of the 58 injured employees who were reemployed only 6 were known to have returned to the same occupation. The large majority subsequently filled unskilled occupations, as shown by the following table:

## CLASS OF OCCUPATIONS BEFORE AND AFTER INJURY OF THOSE EMPLOYEES WHO WERE REEMPLOYED.

| Occupation classification.   | Employees in specified class of occupations— |           |               |           |
|------------------------------|--|-----------|---------------|-----------|
|                              | Before injury.                               |           | After injury. |           |
|                              | Number.                                      | Per cent. | Number.       | Per cent. |
| Skilled occupations.....     | 35   | 60        | 18            | 31        |
| Semiskilled occupations..... | 12   | 21        | 40            | 69        |
| Unskilled occupations.....   | 11   | 19        |               |           |
| Total.....                   | 58   | 100       | 58            | 100       |

The occupational status before and after injury of each reemployed man is shown in the table on pages 48 and 49. A summary of the occupations followed by the 58 reemployed men upon their return to work is given in the following table.

| Unskilled or semiskilled occupations:         | Number. |
|---|---------|
| Watchman, gateman, etc.....                   | 7       |
| Elevator operator.....                        | 9       |
| Laborer.....                                  | 6       |
| Helper.....                                   | 15      |
| Messenger.....                                | 1       |
| Chocolate packer.....                         | 1       |
| Supervising scows.....                        | 1       |
| Total.....                                    | 40      |
| Skilled occupations:                          |         |
| Foreman.....                                  | 3       |
| Apprentice instructor.....                    | 1       |
| Machinist.....                                | 4       |
| Tool-room clerk.....                          | 3       |
| Calender operator (rubber manufacturing)..... | 2       |
| Engineer.....                                 | 1       |
| Traveling salesman.....                       | 1       |
| Bottle checker (brewery).....                 | 1       |
| Radio operator.....                           | 1       |
| Clerical.....                                 | 1       |
| Total.....                                    | 18      |
| Grand total.....                              | 58      |

*Wages before and after injury.*—The effect of these permanent disability injuries upon wages is difficult of determination unless industrial conditions are normal and have remained stationary for a sufficient length of time. The period covered by this investigation began in a time of industrial depression and ended in one of industrial activity. Naturally there was a considerable increase in wages during the period. Therefore the difference in wages received by the employee at the time of injury and upon his return to work a year and a half or two years later by no means measures the difference in earning capacity. Of the 123 employees studied 24 per cent at the time of the injury received less than \$9 a week; and 59 per cent received under \$12. It is reasonable to assume that with the subsequent increased demand for labor and the consequent advance in the wage level but few of this class of employees would be unable to earn at least their former wage at any kind of work.

However, of the 58 injured employees who returned to work, 27, or 47 per cent, received less at the time they returned to work than they received before the injury; 19, or 33 per cent, received the same wage; 10, or 17 per cent, received a higher wage. In two cases the subsequent wages were not ascertained.

The effect of the industrial activity factor upon wages is brought out to some extent in the following table, which shows, for the persons injured in each of the three years, the number and per cent receiving less, the same, or more wages at the time they returned to work than they had formerly received:

EFFECT OF INJURY UPON WAGES AS COMPARED WITH FORMER WAGES, CLASSIFIED BY YEARS IN WHICH INJURY OCCURRED.

| Year.                      | Number receiving at the time they returned to work— |       |       |                |        | Per cent receiving at the time they returned to work— |       |       |                |        |
|----------------------------|---|-------|-------|----------------|--------|---|-------|-------|----------------|--------|
|                            | Less.   | Same. | More. | Not re-ported. | Total. | Less.   | Same. | More. | Not re-ported. | Total. |
| First year (1913-14).....  | 11  | 5     | 2     | 1              | 19     | 58  | 23    | 11    | 5              | 100    |
| Second year (1914-15)..... | 7   | 7     | 2     | 1              | 17     | 41  | 41    | 12    | 6              | 100    |
| Third year (1915-16).....  | 9   | 7     | 6     | .....          | 22     | 41  | 32    | 27    | .....          | 100    |
| Total.....                 | 27  | 19    | 10    | 2              | 58     | 47  | 33    | 17    | 3              | 100    |

An idea of the actual effect of the loss of a hand or arm upon earning capacity of a skilled worker can perhaps be obtained from the following two illustrations:

1. A carpenter employed in a cotton mill lost his right hand at the wrist in an accident which occurred on September 22, 1914. He was a French Canadian, 36 years of age, and could speak very little English. His weekly wages at the time of the injury were \$12.15. He returned to work for the same employer as a tool-room clerk four and one-half months later at a weekly wage of \$10. At present he is receiving \$16, or an increase of 33 per cent over his former wage. However, had he not been injured he would now be receiving \$21.25 at his former occupation. In his case, therefore, there was a decrease in earning capacity of 25 per cent.

2. A machine tender employed in a paper mill lost his left arm from above the elbow July 17, 1913. He was an American, 28 years of age. His average weekly wage at the time of the injury was \$17.53. He returned to work for the same employer three months later, being placed in charge of the storeroom. The wage received upon his return was \$15. At present he is receiving \$17 a week, practically the same wage he earned at the time of the injury. However, had he not been injured he would now be receiving \$27 a week at his former occupation. There was a reduction in earning capacity of 35 per cent.

*Reemployment opportunity according to nature of injury.*—As already noted, the loss of a foot or leg produces longer total disability than the loss of a hand or arm. The former types of injuries seem to be more serious also from the standpoint of occupational opportunity, as is shown in the table following.



## REEMPLOYMENT OPPORTUNITY ACCORDING TO NATURE OF INJURY.

| Character of injury. | Number injured. | Those reemployed. |           |
|----------------------|-----------------|-------------------|-----------|
|                      |                 | Number.           | Per cent. |
| Loss of—             |                 |                   |           |
| Hand.....            | 50              | 28                | 56        |
| Arm.....             | 46              | 22                | 48        |
| Foot.....            | 10              | 3                 | 30        |
| Leg.....             | 17              | 5                 | 29        |
| Total.....           | 123             | 58                | 47        |
| Hand and arm.....    | 96              | 50                | 52        |
| Foot and leg.....    | 27              | 8                 | 30        |
| Total.....           | 123             | 58                | 47        |

Of the 96 hand and arm cases 50, or 52 per cent, were reemployed, whereas of the 27 foot and leg cases only 8, or 30 per cent, were reemployed. However, because of the limited number of cases, too much weight should not be given to these conclusions. Furthermore, the factors of age and previous occupation may have had a determining influence.

*Reemployment classified according to type of insurance.*—Under the Massachusetts Compensation Act employers must insure in an authorized insurance company, either stock or mutual. Self-insurance is not permitted. It is interesting to note what effect, if any, the type of insurance has upon the reemployment of injured men. The mutual companies were able to replace 70 per cent of the disabled men, insured by them, who were covered by this study whereas the stock companies were able to replace only 39 per cent. This is shown by the following table:

NUMBER AND PER CENT OF INJURED MEN REEMPLOYED, CLASSIFIED ACCORDING TO TYPE OF INSURANCE CARRIER.

| Type of insurance carrier. | Number injured. | Those reemployed. |           |
|----------------------------|-----------------|-------------------|-----------|
|                            |                 | Number.           | Per cent. |
| Mutual companies:          |                 |                   |           |
| Company A.....             | 130             | 122               | 73        |
| Company B.....             | 16              | 10                | 62        |
| Total.....                 | 146             | 132               | 70        |
| Stock companies.....       | 83              | 32                | 39        |
| Grand total.....           | 123             | 64                | 50        |

<sup>1</sup> Including 6 cases coming under the first year of the Massachusetts act and not included in the 123 cases analyzed in this report.

The better showing of the mutual companies in replacement work is due mainly to the closer relationship between the employer and insurer. The more direct the relationship between accident cost and insurance premiums the more it is to the interest of the em-

ployer to reemploy his injured workmen and thus reduce his compensation or insurance costs. The policy of return dividends inherent in the mutual system, particularly when the dividend rate is determined in accordance with the actual accident costs of a single establishment or group of similar establishments, makes it of financial interest to employers to take back their injured men as soon as possible.

*Effect of English-speaking ability upon reemployment.*—Owing to lack of complete and definite information, it is impossible to show statistically the effect upon his reemployability of an employee's inability to speak English. That it has a deterrent effect in many cases is certain. In a number of instances reported by inspectors of the industrial accident board and insurance companies this factor had a determining influence. Ability to understand and speak English may not be of vital importance to a machine tender in a cotton mill, for example, but it is essential to watchmen, messengers, elevator operators, and so on; and, as already shown, it is occupations of this character that most of the injured employees fill after their injury.

*Rehabilitation and reeducation.*—Practically the only rehabilitation work done was the furnishing of artificial hands or legs and these were supplied in less than one-half the cases. In some cases the employee refused to wear the artificial limb, usually because it did not fit, was cumbersome or unsightly, or was useless.

Six instances of attempts at reeducation or retraining were found with the following results:

1. An Italian boy 16 years of age lost his right hand at the wrist on April 25, 1913. He was employed as a cutting-machine feeder in a printing establishment and received \$6 a week. After 5 months the boy returned to the same employer, receiving \$4 a week, worked 21 weeks and then attended a school of telegraphy for about one year, receiving full compensation during this period, but was unsuccessful and quit. The employer reported that the boy was "one of those kind you couldn't do anything with." He was furnished an artificial hand but would not use it. The industrial accident board stated that he was unreasonable and unmanageable, being a "sport" type. At present he is reported as operating a pool room in the Italian district in East Boston.

2. An American boy 17 years of age lost the use of his minor hand on October 14, 1913. He was employed as a molder in a woodworking establishment and received \$8 a week. He studied telegraphy while disabled and became a radio operator on board shipping vessels. He is an exceptionally intelligent and capable young man. At present he is receiving a monthly wage of from \$60 to \$75 and board.

3. An American young man 20 years of age lost his left arm just below the shoulder on September 13, 1915. He was employed on a

rand-tacking machine in a shoe factory, receiving \$9 a week. He attended business college for about 2 years while disabled, receiving compensation during the period. He is now working in the office of another shoe factory as a messenger and clerk, receiving \$45 a month.

4. An American, 30 years of age, lost his right leg below the knee on December 4, 1915. He was employed as an electric truck driver, receiving \$16 a week. After receiving compensation for total disability for nearly 16 months he was granted a lump-sum settlement of \$1,000. This he invested in a motor car which he remodeled to permit operation with his left foot. He operates the car for hire and is doing very well.

5. An American boy 17 years of age lost his left foot on January 22, 1916. He was a high school student at the time, sustaining the injury while temporarily employed during the winter vacation. He received compensation for 19 months. He is still attending high school, his parents being reported as well-to-do.

6. An Armenian young man, 21 years of age, lost his left arm at the elbow on April 11, 1916. He was employed as a beater-out in a shoe factory, receiving \$13.50 a week. He speaks very little English, having been in this country only a short time. He is ambitious and willing but unusually sensitive and helpless. He attended school for a while during disability and is very desirous of obtaining an education. The insurer, however, believes that he should return to work. A job was found for him as a helper in a grocery store at \$3 a week, but his inability to understand English and his natural timidity and sensitiveness interfered with his usefulness and he was soon dismissed. He is at present unemployed and receiving compensation for total disability.

*Summary.*—To recapitulate: The average period of total disability for the 123 cases was 15.9 months. From the medical and reemployment standpoint, the loss of a foot or leg is more serious than the loss of a hand or arm. The average disability resulting from the former type of injury was 24.8 months, while that of the latter was only 13.4 months. Again, of the hand and arm cases 52 per cent were reemployed, whereas of the foot and leg cases only 30 per cent were reemployed.

The age of the employee prolongs the period of disability and affects adversely his opportunity for reemployment.

Reemployability varies directly with occupational skill. Machinery-manufacturing establishments show the highest percentage of reemployed, due in part to the character of the work and the greater skill of the employees. On the other hand, contracting and trucking have the lowest percentage of reemployment, due to the nature of the work and the small size of the establishment. A study of the occu-

pations before and after injury from the standpoint of skill shows a decidedly downward movement. Of the 58 injured men reemployed, 60 per cent held skilled occupations before the injury, whereas only 31 per cent held such occupations after the injury. Also, of the 58 reemployed, 7 were reemployed as watchmen or gatemen, 9 as elevator operators, 6 as laborers, and 15 as helpers. Only 39 per cent of the injured men returned to the same employer, and of the entire 123 cases only 6 were known to have returned to the same occupation.

The mutual insurance companies were able to replace a higher percentage of the employees insured by them who were covered by this study than the stock companies, due, no doubt, to the more direct relationship between accident costs and insurance premiums.

The injuries almost always resulted in a reduction of earning capacity. Despite a general increase in the wage level during the period covered by the investigation, 47 per cent of the 58 injured men reemployed received less than formerly, 33 per cent received the same wage, and only 17 per cent received more.<sup>1</sup>

Inability to speak English in many cases had a deterrent effect upon opportunity for reemployment.

Artificial limbs were provided in about one-half of the cases. Practically no retraining was attempted.

#### ANALYSIS OF CAUSES.

The foregoing analysis of the facts shows quite clearly that the present industrial handicap of workmen who lose an arm or leg is a serious one. A critical analysis of the several contributory causes discloses the fact that nearly all these causes have their origin in, and are closely related to, the absence of a central and responsible supervising authority. The welfare of our crippled men has been nobody's business. Closely connected with this irresponsibility is the lack of opportunity. As bitterly stated by one young man who had lost the use of his hand, "I want to work and can work, but they won't give me a chance." Some of the more important of these contributory causes, in the order in which they would present themselves to the injured employees, are given below.

1. The injury produces a sense of helplessness and uselessness. The injured man's self-reliance is temporarily destroyed and he feels that he is "done for" for the remainder of his life. Coupled with this is a feeling of resentment and bitterness toward society for his injury. In many cases he refuses to cooperate and adopts an antagonistic attitude toward all efforts to help him. His unfamiliarity with his legal rights prevents him from distinguishing between those who wish to help him and those who desire to exploit him. Usually

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<sup>1</sup> Wages in 2 cases (3 per cent) were unobtainable.

the first person with whom he comes in contact following his injury is the insurance-company adjuster, who often antagonizes him and arouses his suspicions. The agent's efforts to obtain the facts in the case in order to ascertain whether and to what extent the company is liable are interpreted as an attempt to take advantage of him. In many cases the agent is tactless, unsympathetic, and inclined to take advantage of the employee. At the very time when the injured man is in most need of assistance and sympathetic advice he meets with indifference and exploitation. This initial experience colors all his subsequent acts and has an important effect upon his reaction toward medical treatment, rehabilitation, and reemployment.

2. Another contributory cause is the inadequate medical service furnished, both as to quantity and quality. From every viewpoint, and especially from that of social economy, unlimited medical and surgical treatment, without cost to the employee, should be provided. Here again the element of distrust affects adversely the speedy recovery of the injured man. In many cases the employee is suspicious of the service provided by the insurance carrier and is exploited by those in whom he has confidence and who speak his own language. There is no one to take an intelligent interest in him and to obtain his confidence. Furthermore, some races are peculiarly sensitive to pain and refuse to undergo necessary operations or other treatment recommended. Because of this lack of cooperation the injury does not heal properly and disability is unnecessarily prolonged, or made permanent.

3. A third contributory factor, correlated with the medical service, is the lack of rehabilitation hospitals for functional restoration. Practically the only attempt at rehabilitation revealed by this study was the furnishing of artificial hands or arms, and these were supplied in less than one-half the cases. In a number of instances the men refused to wear these appliances, either because they did not fit or were useless. No systematic instruction in the adjustment and use of them was given.

4. Such expressions as "reeducation" and "retraining" sound somewhat ironical when applied to the average industrial cripple. A large proportion have never been educated or trained for any trade. The task of retraining our disabled men brings into relief the great need for industrial education. However, those who are most helpless and in need of assistance are foreigners and consequently even an adequate industrial education system would not solve the whole problem. But by no means all of the disabled would be subjects for retraining. Probably very little could be done with the old men—those who were already near the end of their industrial career at the time of the injury. But an intelligent readjustment of industry and the interested cooperation of employers would



take care of most of the remainder. Thousands of positions exist which a one-armed or one-legged man could fill as successfully as a normal man. Obviously, however, it would not be desirable to place all these injured men in such positions without regard to age. For example, men under 21 or 25 years of age should not spend the rest of their lives operating elevators. Those most in need and best adapted for reeducation are the young men. Of the 123 cases considered, 12 per cent were under 21 years of age, 16 per cent were 21 and under 24, and 43 per cent were under 30. Most of these could probably be benefited by reeducation and retraining for suitable occupations. Practically no provision is made for reeducating and retraining these industrial cripples.

5. Under the Massachusetts Compensation Act injured employees must be paid compensation for total disability until reemployed. Consequently, it is incumbent upon the insurance companies to find employment. That they have not been very successful has already been established. There are many reasons for this failure. In the first place, most of the employers refuse to employ these industrial cripples unless they were injured in their own establishments. Even then, because of the character of the industry, the size of the establishment, the employee's lack of skill and ability to speak English, and the risk of a second injury causing serious or total permanent disability, many are not reemployed. Few employers will employ handicapped men injured in other establishments. They feel no moral responsibility in the matter and do not want to be bothered with cripples, especially if plenty of normal workmen can be had at low wages. The very fact that men are crippled closes the door of opportunity against them. They are not given a chance to prove their worth or ability. On the other hand, many employers feel morally responsible for their employees if injured in their own establishments; and this despite the fact that their full legal obligations have been met by the payment of compensation insurance premiums. However, moral responsibility, though important, is not necessarily the sole determining motive in reemploying even their own injured men. A study of the reemployment cases discloses the fact that in many instances the men taken back are old, faithful, and usually skilled employees whose knowledge of the business is an economic asset to the employer.

6. It may be pointed out that perhaps the chief obstacle in the way of a successful solution of this problem lies in the very nature of our industrial society. Reemployment is beyond the State's present power. Our industries are privately owned and consequently opportunities for industrial employment are under the exclusive control of private employers. Some employers for reasons of moral responsibility or economic interest reemploy handicapped workers, but



they can not be legally compelled to do so. Furthermore, actual restoration to industry solves only half of the problem. It is important to know under what conditions they are reemployed. What wages should they receive, both absolutely and in relation to normal workers? What effect will their reemployment have upon the displacement of normal workers and upon the integrity of the organized labor movement? Those employers who maintain sick-benefit funds, welfare plans, and the like seem more inclined to reemploy and take care of their injured workers than other employers. On the other hand, they are extremely hostile to labor organizations, and would resent interference from this quarter. It is the policy of some of the labor unions to look after their own disabled men, but a large proportion of injured workers are not members of labor organizations. The difficulties involved in these fundamental problems, though great, need not be insoluble.

7. Another factor tending to prolong disability and prevent early return to industry is the operation of the lump-sum provision of the compensation act. Under the Massachusetts law an employee sustaining the loss of an arm or leg receives "specific" compensation for 50 weeks for the loss of the member, "additional" compensation for total disability while disabled, and upon reemployment partial compensation equal to 66 $\frac{2}{3}$  per cent of his wage loss. The industrial accident board is authorized to commute the weekly payments for the probable future disability into a lump sum if such commutation would be to the interest of the employee. In a large majority of cases studied the employees petitioned for a lump sum. More than half of the petitions were granted by the accident board. There are several reasons for this: A lump sum of \$1,000, say, looks large and inviting to the average employee. He may want to return to his native country or to invest the proceeds in some small business enterprise, though these reasons are frequently given merely as a pretext to influence the board. Often the employee is afraid that his return to work would prejudice his rights under the law, and, as a consequence, deprive him of part of the compensation to which he was legally entitled. He has heard of cases where an employee was given work and shortly afterwards summarily discharged without cause in order to mulct him of his just compensation.

Then, too, in many cases the wages received at the time of the injury were ridiculously low. Acceptance of employment now at the former wage would terminate his compensation payments, but would not compensate him for the reduction in his earning capacity. All of these factors have a determining influence in prolonging disability and unemployment. The case drags on and on, repeated conferences are held, and ultimately in order to get rid of the case a lump

sum is granted. Of the 123 injured men studied, lump sums were granted in 69, or 56 per cent, of the cases.

8. For the reasons mentioned above, the injured man remains disabled and unemployed much longer than the circumstances warrant. Accustomed to idleness and regular compensation payments, he feels progressively less inclined to resume work. He gets into a rut, adapts himself to a lower standard of living, and loses his ambition and initiative. His idle time is frequently spent in saloons and other lounging places, in which he finds cronies similarly situated. Here he discusses his ailments, the seriousness of which he is inclined to exaggerate, and the effect of which produces a psychosis which impairs his will power and accelerates his physical deterioration.

In some timid men a disability produces a state of self-consciousness and helplessness. A single rebuff by a prospective employer or a show of indifference discourages them. Other men are abnormally sensitive to physical pain, and because of this are afraid to use the injured member or to undergo a necessary operation to restore its functioning.

9. An analysis of the foregoing contributory causes shows that they are all closely related to and the result of the lack of an intelligent and responsible supervision. The welfare of our disabled men, whether injured in military or civil life, is a social and public function. Accident prevention, compensation, insurance, medical treatment, rehabilitation, reeducation, and reemployment are all component parts of this problem and should be under the supervision and jurisdiction of a single public body. Delegating to private agencies the performance of these social functions should no longer be tolerated. This is not intended as a criticism of these private agencies. They have developed largely because the State failed to grasp its opportunity or shirked its responsibility, but the fact remains that they have not been able to perform these social functions successfully.

#### REMEDIAL SUGGESTIONS.

An examination of the facts and an analysis of the contributory causes prompt the following remedial suggestions:

1. *Compensation.* (a) Compensation benefits for permanent injuries causing dismemberment or mutilation should be fixed at a definite, though adequate, amount, graded according to nature of disability and age and occupation of the employee, but not dependent upon unemployment in individual cases. Injured employees should not be penalized for rehabilitating themselves. When the injured man knows that the amount of his compensation will not be affected by his early return to industry, disability and unemployment will be materially decreased. (b) In Massachusetts compensation is paid for

the loss of a major member for 50 weeks, and also for total disability while disabled, and these payments run concurrently. This practice of concurrent payments should be abolished. The combined weekly amounts of such payments in most cases exceed the employee's wages. Employees are often under the impression that the amount received will continue indefinitely and consequently have less desire to return to work. (c) The system of granting lump sums should be abolished or materially restricted for reasons already explained. (d) Employers should be relieved of the added risk involved in the employment of disabled workers.

2. *Medical service.* (a) Adequate medical and surgical treatment, including necessary appliances, should be furnished by the State. (b) Orthopedic and rehabilitation hospitals should be established and maintained by the State, utilizing present institutions wherever possible.

3. *Reeducation and retraining.* There should be established vocational training schools, with both day and night courses, which should be closely correlated with the rehabilitation hospitals.

4. *Reemployment.* A survey of the occupational opportunities in the various industries of the State should be made and the cooperation of the employers and labor organizations should be enlisted. Thousands of positions exist or could be created which crippled workers could fill as successfully as normal workmen, were the problem carefully studied and an intelligent readjustment made. Particular care should be taken to eliminate the stigma of charity. The positions should be necessary and constructive in an industrial sense in order that the handicapped man may feel himself an integral and important part of the economic world and thus maintain his self-respect.

5. *Insurance.* In the field of workmen's compensation, competitive insurance companies are wholly unsatisfactory. Either a monopolistic State insurance fund or employers' mutual association should be substituted for the competitive casualty companies.

6. *Administration.* The entire administrative and supervisory work should be under the jurisdiction of one central authority, preferably the industrial accident commission. This commission should, in case of necessity, have power to coerce the employee as well as employers. Confidence, impartiality, and intelligent direction and supervision are vital factors in the whole rehabilitation problem and these can best be obtained through public administration.

## OCCUPATION, WAGES, ETC., OF 58 REEMPLOYED INJURED EMPLOYEES IN MASSACHUSETTS, JULY 1, 1913, TO JUNE 30, 1916.

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| Industry.                            | Nature of injury. Loss of— | Age of employee at time of injury. | Occupation.               |   |   | Weekly wages.      |                      |
|--------------------------------------|----------------------------|------------------------------------|---------------------------|---|---|--------------------|----------------------|
|                                      |                            |                                    | At time of injury.        | Upon return to work. <sup>1</sup>                             | Present.                                | At time of injury. | Upon return to work. |
| Paper manufacturing.....             | Arm.....                   | 28                                 | Machine tender.....       | Storeroom helper.....   | Storeroom helper.....                   | \$17.53            | \$15.00              |
| Box manufacturing.....               | do.....                    | 26                                 | Box maker.....            | Helper <sup>2</sup> .....                                     | Clerk in fruit store <sup>3</sup> ..... | 11.00              | .....                |
| Contractor.....                      | Hand.....                  | 27                                 | Steel worker.....         | Shopwork <sup>3</sup> .....                                   | Not known.....                          | 27.50              | 11.00                |
| Machinery manufacturing.....         | Foot.....                  | 23                                 | Packer.....               | Laborer <sup>2</sup> .....                                    | Telegrapher <sup>3</sup> .....          | 11.00              | 3.00                 |
| Rubber manufacturing.....            | Hand.....                  | 28                                 | Calender operator.....    | Calender operator.....  | Not known.....                          | 16.61              | 16.61                |
| Confectionery manufacturing.....     | do.....                    | 17                                 | Chocolate packer.....     | Chocolate packer.....   | Chocolate packer.....                   | 4.50               | .....                |
| Machinery manufacturing.....         | do.....                    | 34                                 | Machinist.....            | Subforeman.....   | Subforeman.....                         | 16.00              | 16.00                |
| Do.....                              | do.....                    | 47                                 | do.....                   | do.....   | do.....                                 | 18.00              | 10.00                |
| Woodworking.....                     | do.....                    | 17                                 | Molder.....               | Radio operator <sup>2</sup> .....                             | Radio operator <sup>3</sup> .....       | 8.00               | 45.77                |
| Steel and wire.....                  | Leg.....                   | 24                                 | Rigger.....               | Helper in core room.....                                      | Helper in core room.....                | 13.50              | 13.50                |
| Laundry.....                         | Arm.....                   | 27                                 | Flat-iron worker.....     | Marking and sorting <sup>2</sup> .....                        | Not known.....                          | 9.69               | 5.00                 |
| Shipbuilding.....                    | Hand.....                  | 46                                 | Rigger.....               | Supervising stows <sup>3</sup> .....                          | do.....                                 | 15.00              | 6.00                 |
| Tannery.....                         | do.....                    | 34                                 | Laborer.....              | Laborer <sup>3</sup> .....                                    | Laborer <sup>3</sup> .....              | 13.61              | (c)                  |
| Chemical manufacturing.....          | Arm.....                   | 35                                 | Burner operator.....      | "Light work" <sup>2</sup> .....                               | Not known.....                          | 18.12              | (c)                  |
| Pressed steel manufacturing.....     | Hand.....                  | 28                                 | Pressman.....             | Pressman's helper <sup>2</sup> .....                          | Bought chicken farm.....                | 6.22½              | 6.17½                |
| Cotton manufacturing.....            | Arm.....                   | 46                                 | Picker tender.....        | "Light work" <sup>2</sup> on waste machine <sup>2</sup> ..... | Not known.....                          | 7.00               | 7.00                 |
| Do.....                              | do.....                    | 36                                 | Card tender.....          | Scrubbing.....  | Scrubbing.....                          | 7.75               | 6.60                 |
| Street railway.....                  | Foot.....                  | 34                                 | Conductor.....            | Not known.....  | Machinist <sup>3</sup> .....            | 15.87              | 19.20                |
| Bakery.....                          | Arm.....                   | 48                                 | Night shipper.....        | Elevator operator.....  | Elevator operator.....                  | 12.00              | 9.00                 |
| Rubber heel manufacturing.....       | Hand.....                  | 22                                 | Millman.....              | Making ice-cream boxes <sup>3</sup> .....                     | Not known.....                          | 8.00               | 5.00                 |
| Ice dealers.....                     | Leg.....                   | 60                                 | Teamster.....             | Not known.....  | Watchman <sup>3</sup> .....             | 14.00              | .....                |
| Plumbing supplies manufacturing..... | do.....                    | 32                                 | Traveling salesman.....   | Traveling salesman.....                                       | Traveling salesman.....                 | 30.00              | 30.00                |
| Rubber manufacturing.....            | Hand.....                  | 30                                 | Calender operator.....    | Elevator operator <sup>2</sup> .....                          | Not known.....                          | 12.92              | 13.85                |
| Millinery.....                       | Foot.....                  | 19                                 | Packer.....               | do. <sup>2</sup> .....  | Helper <sup>3</sup> .....               | 7.00               | 7.00                 |
| Cotton manufacturing.....            | Hand.....                  | 36                                 | Carpenter.....            | Tool-room clerk.....  | Tool-room clerk.....                    | 12.15              | 10.00                |
| Paper manufacturing.....             | Arm.....                   | 22                                 | Machine hand.....         | Errand boy.....   | Errand boy.....                         | 11.10              | 11.10                |
| Lawyer's estate.....                 | do.....                    | 42                                 | Laborer.....              | Laborer <sup>2</sup> .....                                    | Not known.....                          | 12.00              | 12.00                |
| Contractors.....                     | Hand.....                  | 25                                 | Brakeman.....             | Watchman <sup>2</sup> .....                                   | do.....                                 | 13.50              | 13.50                |
| Gutta percha manufacturing.....      | Arm.....                   | 48                                 | Engineer.....             | Engineer <sup>2</sup> .....                                   | do.....                                 | 18.00              | 18.00                |
| Clock manufacturing.....             | Hand.....                  | 32                                 | Assistant engineer.....   | Night watchman <sup>2</sup> .....                             | do.....                                 | 19.25              | 14.00                |
| Cotton manufacturing.....            | do.....                    | 24                                 | Card stripper.....        | Bobbin boy.....   | Roving boy.....                         | 9.60               | 6.40                 |
| Do.....                              | Arm.....                   | 53                                 | Machine tender.....       | Janitor.....  | Janitor.....                            | 8.68               | 10.30                |
| Do.....                              | do.....                    | 36                                 | Jig hand.....             | Elevator operator <sup>2</sup> .....                          | Not known.....                          | 8.25               | 7.60                 |
| Rubber manufacturing.....            | Hand.....                  | 35                                 | Millman.....              | Helper.....   | Helper.....                             | 9.00               | 9.00                 |
| Motorcycle manufacturing.....        | do.....                    | 40                                 | Punch-press operator..... | Tool-room clerk.....  | Tool-room clerk.....                    | 19.66              | 14.30                |

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|                               |           |    |                             |  |  |       |       |
|-------------------------------|-----------|----|-----------------------------|--|--|-------|-------|
| Copper manufacturing.....     | ..do..... | 34 | Pressman.....               | Watchman.....  | Not known.....                         | 14.14 | 12.00 |
| Brewery.....                  | Arm.....  | 32 | Bottle-machine operator...  | Bottle checker.....  | Bottle checker.....                    | 16.00 | 16.00 |
| Heel manufacturing.....       | ..do..... | 20 | Rand tacking.....           | Chipping leather <sup>3</sup> .....                            | Messenger and clerk <sup>3</sup> ..... | 9.00  | 6.00  |
| Rubber manufacturing.....     | Hand..... | 37 | Calender operator.....      | Work on spreader.....  | Calender operator.....                 | 9.00  | 9.00  |
| Copper manufacturing.....     | ..do..... | 25 | Shipping-room helper.....   | Gate tender.....   | Yard clerk.....                        | 11.07 | 14.00 |
| Blank-book manufacturing..... | ..do..... | 25 | Stamp-press operator.....   | Laborer.....   | Book inspector.....                    | 13.00 | 11.21 |
| Paper manufacturing.....      | Arm.....  | 21 | Plater man.....             | Clerical work.....   | Clerical work.....                     | 12.00 | 12.00 |
| Wool scouring.....            | ..do..... | 60 | Mechanic and engineer.....  | Foreman.....   | Foreman.....                           | 15.00 | 15.00 |
| Cotton manufacturing.....     | ..do..... | 27 | Boss picker.....            | Elevator operator.....   | Elevator operator.....                 | 10.90 | 9.45  |
| Coal dealers.....             | Hand..... | 53 | Yardman.....                | Night watchman.....  | Yardman.....                           | 12.00 | 14.00 |
| Rubber manufacturing.....     | Arm.....  | 17 | Cutting-machine helper..... | Elevator operator.....   | Elevator operator.....                 | 8.00  | 10.00 |
| Trucking.....                 | Leg.....  | 36 | Teamster.....               | ..do. <sup>3</sup> .....                                       | ..do. <sup>3</sup> .....               | 12.00 | 13.25 |
| Cotton manufacturing.....     | Hand..... | 23 | Card tender.....            | ..do.....  | ..do.....                              | 14.00 | 14.00 |
| Forgings manufacturing.....   | ..do..... | 22 | Metal-saw operator.....     | Press operator; <sup>2</sup> bill collector <sup>6</sup> ..... | Not known.....                         | 12.00 | 12.00 |
| Machinery manufacturing.....  | Leg.....  | 54 | Large-lathe hand.....       | Small-lathe hand.....  | Boring-mill operator.....              | 6.36  | 6.35  |
| Printing.....                 | Arm.....  | 45 | Pressman.....               | Apprentice instructor.....                                     | Apprentice instructor.....             | 85.00 | 20.00 |
| Shoe manufacturing.....       | Hand..... | 21 | Beater-out.....             | Helper in grocery store <sup>8</sup> .....                     | Unemployed.....                        | 13.50 | 3.00  |
| Paper manufacturing.....      | Arm.....  | 21 | Machine hand.....           | Elevator operator <sup>5</sup> .....                           | Returned to Russia.....                | 10.00 | 6.00  |
| Cotton manufacturing.....     | ..do..... | 24 | Twister tender.....         | Pushing truck <sup>7</sup> .....                               | Not known.....                         | 8.64  | 5.40  |
| Steel and wire.....           | Hand..... | 48 | Blacksmith.....             | Tool-room clerk.....   | Tool-room clerk.....                   | 17.55 | 16.50 |
| Firearms manufacturing.....   | ..do..... | 23 | Machine hand.....           | Screw-machine operator.....                                    | Screw-machine operator.....            | 9.90  | 9.90  |
| Cotton manufacturing.....     | Arm.....  | 20 | Card tender.....            | General helper.....  | General helper.....                    | 8.64  | 5.40  |
| Bookbinding.....              | Hand..... | 16 | Shop boy.....               | Shop boy.....  | Casing-in work.....                    | 6.50  | 7.00  |

<sup>1</sup> With same employer unless otherwise stated.

<sup>2</sup> Left employment, either voluntarily or by request.

<sup>3</sup> Not with same employer.

<sup>4</sup> Board and lodging furnished also.

<sup>5</sup> Exact amount not known; less than before injury.

<sup>6</sup> Per hour.

<sup>7</sup> Present wage.

<sup>8</sup> Not with same employer; left employment either voluntarily or by request.



**MASSACHUSETTS LAWS FOR TRAINING DISABLED SOLDIERS AND PERSONS CRIPPLED IN INDUSTRY.**

During the recent session of the Massachusetts State Legislature two laws were enacted, each approved May 28, 1918, to provide for the training and instruction of the disabled. One of these laws applies to soldiers and sailors "who are residents of the Commonwealth at the time of their discharge, or within one year thereafter, and continue to be residents while receiving the benefits of this act," and is entitled "An act to provide the training and instruction of disabled soldiers and sailors by the Commonwealth and the Federal Government."<sup>1</sup> The full text of this law is as follows:

SECTION 1. For the purpose of fitting for employment in the industries of the Commonwealth, and of making self-supporting and independent of charitable aid soldiers and sailors who have been or may become disabled or diseased in the present War service of the United States or of its allies, and who are residents of the Commonwealth at the time of their discharge, or within one year thereafter, and continue to be residents while receiving the benefits of this act, the board of education is hereby directed to establish a division for their training and instruction.

SEC. 2. Said division shall consist of a qualified executive head, appointed by the board of education, and an advisory board. The advisory board shall consist of the commissioner of education, who shall be chairman, the surgeon general, the commissioner of health, the director of the bureau of statistics, the director of mental diseases, the chairman of the industrial accident board, and the supervisor of administration, *ex officio*, and nine other persons who shall be appointed by the governor, with the advice and consent of the council, and shall serve without compensation. The director of the bureau of statistics shall be the executive secretary of the board.

SEC. 3. The governor, with the advice and consent of the council, is hereby authorized to transfer, either wholly or in part, to the board of education, for the use of said division, the use and custody of any State hospital, school, or workshop, including its equipment and employees, or any other suitable resources of the Commonwealth, for a period of not exceeding the duration of the present War and two years after its termination as defined by Federal authority.

SEC. 4. The board of education, acting through said division, is hereby empowered to make reasonable agreements for the use of available facilities for the purposes of this act, to provide such facilities where they are needed, and to employ qualified persons to teach or supervise the soldiers and sailors seeking reeducation or training under the provision of this act.

SEC. 5. The governor, with the advice and consent of the council, may lease to, or permit to be used by, the United States or any department, bureau or agency thereof, any State hospital, school, workshop and its premises and equipment, or any other suitable resources belonging to the Commonwealth for the purpose of enabling the United States to carry on the reeducation and rehabilitation in industry of any soldiers and sailors in the service of the United States or of its allies, and may assign to the United States or its agents any agreement or contract, entered into [by] the board of education or by said division for carrying out the purposes of this act, upon such terms and conditions as will fully protect the Commonwealth against expense.

SEC. 6. To carry out the provisions of this act, there may be expended from the treasury of the Commonwealth such amounts as shall annually be appropriated by the general court, but, during the present fiscal year, not more than \$10,000.

<sup>1</sup> General act, ch 230.



SEC. 7. This act shall take effect upon its passage.

The other law is intended to take care of those crippled in industry and is entitled "An act to establish a division in the department of the industrial accident board for the training of cripples."<sup>1</sup> The full text of this law is as follows:

SECTION 1. There is hereby established, under the direction and control of the industrial accident board, a division for the training and instruction of persons whose capacity to earn a living has in any way been destroyed or impaired through industrial accident: *Provided*, That at the time of the accident which incapacitated them they were residents of the Commonwealth. The said board shall in its annual report to the general court describe in detail the work of the division, and may from time to time issue bulletins containing information relative thereto.

SEC. 2. The head of the said division shall be appointed and his salary determined by the industrial accident board, subject to the approval of the governor and council, and he may be removed by the said board. The division shall be furnished with suitable quarters in the statehouse, and may expend for salaries and other necessary expenses such amount as shall annually be appropriated by the general court.

SEC. 3. The said division shall aid persons who are incapacitated as described in section one in obtaining such education, training, and employment as will tend to restore their capacity to earn a livelihood. The division may cooperate with the United States Government, and in cooperation with the board of education may establish or maintain, or assist in establishing or maintaining, in schools or institutions supported wholly or in part by the Commonwealth, such courses as it may deem expedient, and otherwise may act in such manner as it may deem necessary to accomplish the purposes of this act.

SEC. 4. This act shall take effect upon its passage.

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#### RECOMMENDATIONS FOR TECHNICAL EDUCATION AND INDUSTRIAL TRAINING IN THE UNITED KINGDOM.<sup>2</sup>

The reports of the departmental committees appointed by the British Board of Trade to inquire into the position of certain branches of industry contain a number of important suggestions on the subject of technical education and industrial training. The four committees investigated the iron and steel trades, engineering trades, shipbuilding and marine engineering trades, and textile trades, and their reports give evidence of a widespread feeling that the general position of education and training is far from satisfactory. The testimony of witnesses before the iron and steel trades committee indicated a growing dissatisfaction with the lack of systematized technical training equal to the needs of their trades. The engineering trades committee considers the country has "much leeway to make up" in this respect. The committee for shipbuilding and marine engineering reports that "boys who leave school at 14 have received only a superficial education, and many, before the age of 16, have forgotten

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<sup>1</sup> General act, ch. 231.

<sup>2</sup> Summarized from *After-war Trade: Reports of departmental committees—II, Technical training and education*. In *Board of Trade Journal and Commercial Gazette* (Great Britain), January 10, 1918, pp. 26-28.

nearly all they learned"—many at the latter age being unable to write an intelligible and legible letter or make simple arithmetical calculations; teachers of the science classes complain that much of their time is consumed in elementary instruction to enable the boys to benefit by the technical training. The textile trades committee learned from employers that boys now coming to them from the elementary schools are less well grounded than were those who came years ago. On the other hand the textile committee criticizes the employers for not appreciating the value of technical education and for making no widespread demand therefor, a condition which results in the staffs of British firms occupying a lower intellectual place than that of their foreign competitors. The employer is also criticized for discouraging the British youth from taking a course of higher education since it brings him no advantage nor substantial reward.

On the subject in general the iron and steel committee draws a broad distinction between higher technical or scientific education and the instruction of the same kind but in less degree that is given to the workman. "Technical education means the combined training of the mind and body in a special direction. The habits of mental discipline, which it is the purpose of early education to form, are gradually focussed upon a particular range of knowledge, and it is important that there should be no break in the process." The present system, however, is "rather a method of selection than a process of education," and for the greater part it suffers from discontinuity; the two years between the time a boy leaves the elementary school at 14 and the time he enters the works at 16 are worse than useless, since discipline of mind may become seriously enfeebled if not temporarily destroyed.

The committees lay down as the first essential the raising of the school age to 16 in three of the trades and to 15 in engineering. It is admitted that this will cause economic disturbance and that in the first year a balance must be found between the claim of education and the pressure of the economic situation. It is believed, however, that the change can better be borne now than in normal times, as regards financial loss both to the family budget and by employers.

#### IRON AND STEEL TRADES.

The iron and steel trades committee recommends that as to boys from 14 to 16 years general scientific instruction should dominate, at first general and elementary, including chemistry, physics, mathematics, and after that dictated by the local industry. Boys apprenticed under indenture in the trades would attend school until 16, the employers contributing an apprenticeship wage of about 5 shillings (\$1.22) a week. To lessen the economic disturbance, boys should be withdrawn from work only partially at first.

Apprenticeship in the common acceptance of the term is applicable only to industries whose product is the handiwork of a single craftsman, who can give individual instruction to one or more pupils. Industries whose products are the result of collective labor, as in iron and steel, do not lend themselves to this simple instruction; each occupation is part of a scheme of collective labor, and only actual practice and daily contact with the connected occupations can give the necessary training. In such collective tasks experience is the best teacher, and for this reason a contract for seven years in the heavy branches of the trades is recommended. It is stated that the skill and craftsmanship of British workmen in this industry compare very favorably with those of German and American workmen.

The system of pupil apprenticeship present in many works should be intimately connected with the scheme for university technical education, and, in addition to this, technical institutes should be established in convenient centers. It is suggested that promotion to higher grades of workmanship should depend on attendance and success at classes, thus providing an incentive to efficiency.

The recommendations of this committee are as follows:

- (1) That the limit of school age should be raised from 14 to 16 years.
- (2) That a system of apprenticeship should be introduced into the iron and steel industries, in the nature of a general agreement of service under a particular employer to begin at the age of 14; such apprenticeship to provide for the continuance of attendance at school until the age of 16, the employer paying during these two years a small apprenticeship wage. The term of apprenticeship in the heavy trades should be for seven years.
- (3) That from the age of 16, when the boy enters the works, he should attend specially provided technical classes until the age of 18.
- (4) That the teachers in these technical classes should be selected with a view to their practical knowledge of works processes, that they should be duly recognized by the board of education, but that their selection for, and retention in, their posts should be made a matter for local committees consisting of manufacturers and workmen in the industries.
- (5) That there should be intimate cooperation between the technical universities, the teaching centers, and those industries which they subserve, and that technical courses at the universities should provide for a period of practical training in an industrial center, for which large employers should offer special facilities.
- (6) That in each large individual center there should be created a technical institute approximating to the university type.

#### ENGINEERING TRADES.

The committee for the engineering trades makes the statement that a few employers, recognizing that most boys can not or will not work at classes after a day's work, allow a certain number of hours a week for school attendance at the firm's expense, but adds that "it can not be expected that the majority, who struggle against competition, will do this voluntarily." It states that Scotland has an act, not strictly enforced at present, enabling the authorities to impose

compulsory technical education on boys 14 to 17 years of age who are not being suitably educated and are not specially exempted. The committee considers that if such powers were general and were applied to enforce the attendance of all boys at evening classes, the result probably would be unsatisfactory, because of the fatigue of the boys and hardship in cases where they lived at a distance.

As regards higher technical education and scientific research, the committee adopts the recommendations of the committee of the privy council for scientific and industrial research, and adds that qualified engineers from universities should be better paid. Hitherto it has been possible to employ young German scientists, especially chemists, of considerable knowledge but demanding only limited salaries. "We think that the engineering trades should make a special point of employing, as far as possible, persons of British university training in all positions involving technical and scientific attainments."

The committee makes recommendations as follows:

(1) (a) That the revival of an apprentice system on a large scale be encouraged on the basis of abolition of premium, a reasonable wage to apprentice, and safeguards in cases of the apprentice proving unsuitable for his work; (b) that a limited system of compulsory education at day classes be encouraged, particularly in the manufacturing centers of the country, a part of the scheme being payment by the employer for the time the apprentice is present at class; (c) that the school age be raised to 15.

(2) That in the case of engineering university men, (a) the need for the improvement of their financial position in works should be recognized by the employers, and (b) the introduction of postgraduate classes is recommended; further, (c) that the status and financial outlook of the teacher be improved so as to render the profession attractive to the most capable persons.

#### SHIPBUILDING AND MARINE ENGINEERING TRADES.

This committee considers that a universal system of education and training for all boys, and applicable to all yards and engine works, can be introduced by employers without difficulty. A large number of scholarships are provided for naval architects, some of which might be taken by marine engineers. There are many more openings for the advancement of marine engineers than of naval architects, but there seems to be a lack of specific courses for the former similar to those for naval architects, and the committee is of opinion that a special university course should be organized for marine engineering designers, at any rate in universities close to important works.

This committee makes the following recommendations:

(a) Education of boys and apprentices; apprenticeship: 1. The school-leaving age should gradually be raised to 16, and meanwhile there should be introduced a system of compulsory part-time education between the existing school-leaving age and the age of 16, such education to be imparted during the day and not in the evening.

2. Compulsory education should cease with the commencement of apprenticeship at the age of 16, when further education should become optional. There should be provided at evening classes (a) facilities for higher technical education for apprentices able and willing to profit by it; and (b) classes on subjects of a general educational character for other apprentices. Fees should be charged, but refunded subsequently if attendance has been satisfactory.

3. There should be a correlated system of control in the schools, and in the factory; education should be in the hands of the educational authorities, but those authorities should coöpt members of the industries to assist in the work.

4. The system of education and training introduced should be universal, with such variations as regards detail as may be necessary to suit different localities.

5. Apprentices of special ability or education should be encouraged to attend sessions at a university or technical school, if they so desire, as part of their apprenticeship.

6. A special course for marine engineering designers should be organized, at least in universities near important marine engine works.

7. Apprenticeship should not exceed five years.

8. There should be appointed throughout the industries supervisors or tutors, whose special function it should be to interest themselves personally in the boys and youths from the point of view of their work, their recreation, and their social life.

9. Employers should consider the possibility and desirability of introducing a system of deferred payments for apprentices.

10. Apprentices should be indentured, and should up to the age of 21 be members of separate approved societies formed by districts under the employers' associations.

(b) Industrial research: 1. Laboratories should be established by cooperative effort in convenient centers for the testing of materials. Such central laboratories might also become centers of research.

2. A publicly or cooperatively provided experimental tank in each center of industry would be of advantage, and would encourage research; but such tanks should only be established when it is found that the tank at Bushey is being overburdened with outside work to the detriment of its research work.

3. With regard to such research work, more experiments should be directed toward the design of vessels of moderate speed and size.

#### TEXTILE TRADES.

The textile trades committee recommends for each important textile town an art school and a technical school, assisted by Government grant, which shall work hand in hand in the training of young people to become designers, manufacturers, or managers. These schools should be equipped with the most modern machinery and appliances for testing materials and investigating processes, providing opportunities equal to those found abroad for the study of manufacture. Manchester, Leeds, Belfast, Macclesfield, Nottingham, and Kidderminster might become seats of great schools serving, respectively, the cotton, woolen, linen, silk, lace, and carpet trades.

The textile trades offer great opportunities in the way of (1) scientific investigation into raw materials, (2) scientific improvement of processes, and (3) technical investigation for the improvement of machinery. In the past, machinery and methods have been adapted to the textile fibers commonly produced, but research among raw



materials themselves might evolve special fibers suited to the products required and their cultivation might be encouraged.

The findings of this committee follow:

*Technical and art education:* (a) That our system of technical and art education should be thoroughly overhauled, in order to raise the standard of instruction and enable the schools to supply the textile industries with more highly trained workers and managers.

(b) That steps should be taken to insure the provision of more highly trained teachers with more liberal emoluments and improved status.

(c) That the managing bodies of technical and art schools should always include a considerable proportion of members connected with the industries which are taught in the schools.

(d) That employers should afford opportunities to promising young people to attend the courses at technical schools during the ordinary working hours, without deductions of pay.

(e) That in addition to local schools, a central institute should be established in connection with each of the textile industries, fully equipped with modern machinery and with the appliances necessary for testing materials and investigating processes, and capable of providing opportunities for the most complete study of manufacture and design.

*In scientific and technical research:* (a) That there should be continuous and systematic research into the raw materials and various manufacturing processes of the several textile industries in order to stimulate their development and prosperity.

(b) That scientific and industrial research for the benefit of an industry should be directed by the industry itself, aided by funds from the Government, and that with this object the great trade associations we have suggested, or trade associations for research on the lines contemplated by the department of scientific and industrial research, should be established for the several branches of the textile industry.



## PRICES AND COST OF LIVING.

### RETAIL PRICES OF FOOD IN THE UNITED STATES.

The retail price of food as a whole for the United States on May 15, 1918, showed an increase of 3 per cent over the price for April 15, 1918.

Of the 27 articles for which prices are received by the Bureau of Labor Statistics, 6 articles—milk, flour, potatoes, raisins, sugar, and coffee—remained the same in price. The increase of 70 per cent in the price of onions is due to the new onions having just come on the market. Round steak and plate boiling beef increased 10 per cent each; sirloin steak, rib and chuck roast, 9 per cent each; pork chops, 3 per cent; bacon, ham, and rice, 2 per cent each. Bread and butter increased 1 per cent each. Salmon increased less than 1 per cent. The prices of corn meal and cheese were 2 per cent less on May 15 than on April 15. Lard, beans, and prunes showed a decrease of 1 per cent each. Eggs and tea declined less than 1 per cent in the same period.

Conforming to the ruling of the Food Administration, no live or fresh hens were sold on March 15 or April 15, hence no comparison can be made in the prices for the period April to May. The May price, however, shows a 5 per cent increase over February, the date last reported.

The following table shows the retail prices of food in the United States on April 15 and May 15, 1918:

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD ON  
APR. 15, 1918, AND MAY 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. For certain articles relative prices are not shown because quotations were not secured for 1913.]

| Article.            | Unit.      | Average money price. |                  | Relative price.   |                  |
|---------------------|------------|----------------------|------------------|-------------------|------------------|
|                     |            | Apr. 15,<br>1918.    | May 15,<br>1918. | Apr. 15,<br>1918. | May 15,<br>1918. |
| Sirloin steak.....  | Pound....  | \$0.366              | \$0.400          | 144               | 157              |
| Round steak.....    | do.....    | .345                 | .380             | 155               | 170              |
| Rib roast.....      | do.....    | .293                 | .318             | 148               | 161              |
| Chuck roast.....    | do.....    | .255                 | .278             | .....             | .....            |
| Plate beef.....     | do.....    | .199                 | .219             | .....             | .....            |
| Pork chops.....     | do.....    | .356                 | .367             | 170               | 175              |
| Bacon.....          | do.....    | .495                 | .505             | 183               | 187              |
| Ham.....            | do.....    | .446                 | .456             | 166               | 170              |
| Lard.....           | do.....    | .331                 | .329             | 209               | 208              |
| Hens.....           | do.....    | .....                | .379             | .....             | 178              |
| Salmon, canned..... | do.....    | .295                 | .296             | .....             | .....            |
| Eggs.....           | Dozen..... | .425                 | .424             | 123               | 123              |

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD ON  
 APR. 15, 1918, AND MAY 15, 1918—Concluded.

| Article.                   | Unit.       | Average money price. |                  | Relative price.   |                  |
|----------------------------|-------------|----------------------|------------------|-------------------|------------------|
|                            |             | Apr. 15,<br>1918.    | May 15,<br>1918. | Apr. 15,<br>1918. | May 15,<br>1918. |
| Butter.....                | Pound.....  | \$0.507              | \$0.510          | 132               | 133              |
| Cheese.....                | do.....     | .341                 | .334             |                   |                  |
| Milk.....                  | Quart.....  | .132                 | .132             | 148               | 148              |
| Bread.....                 | 16-oz. loaf | .086                 | .087             | 172               | 174              |
| Flour.....                 | Pound.....  | .066                 | .066             | 200               | 200              |
| Corn meal.....             | do.....     | .071                 | .070             | 237               | 233              |
| Rice.....                  | do.....     | .121                 | .123             |                   |                  |
| Potatoes.....              | do.....     | .022                 | .022             | 129               | 129              |
| Onions.....                | do.....     | .033                 | .056             |                   |                  |
| Beans, navy.....           | do.....     | .180                 | .178             |                   |                  |
| Prunes.....                | do.....     | .166                 | .165             |                   |                  |
| Raisins, seeded.....       | do.....     | .151                 | .151             |                   |                  |
| Sugar.....                 | do.....     | .091                 | .091             | 165               | 165              |
| Coffee.....                | do.....     | .301                 | .301             |                   |                  |
| Tea.....                   | do.....     | .639                 | .638             |                   |                  |
| All articles combined..... |             |                      |                  | 154               | 158              |

<sup>1</sup> 16 ounces, weight of dough.

A comparison of prices as between May 15, 1918, and May 15, 1917, shows that food as a whole increased 5 per cent. Seven of the 27 articles show a decline in the retail price. Potatoes declined 64 per cent; onions, 35 per cent; flour, 24 per cent; sugar, 9 per cent; beans, 7 per cent; cheese, 1 per cent; and coffee less than 1 per cent. Ten articles show an increase of 20 per cent or more. Plate boiling beef increased 32 per cent; corn meal, 30 per cent; hens, 29 per cent; round steak and chuck roast, 28 per cent each; milk, 26 per cent; sirloin steak and rib roast, 24 per cent each; bacon, 21 per cent; and pork chops, 20 per cent. Ham and lard increased 18 per cent each; rice, 17 per cent; salmon and tea, 15 per cent each; butter, 10 per cent; prunes, 8 per cent; eggs, 7 per cent; raisins, 5 per cent; and bread, 2 per cent.

A comparison of prices for the 5-year period shows that food as a whole was 63 per cent higher in May, 1918, than in the same month of 1913. Every article increased 38 per cent or over. The least increase, or 38 per cent, was shown in potatoes. Butter increased 42 per cent, and milk 50 per cent. Three articles show an increase of 100 per cent or more. Corn meal was 133, lard 108, and flour 100 per cent higher than in May, 1913. Ten other articles show an increase in price of over 50 per cent.

The table following gives the average and the relative retail prices of food in the United States on May 15 of each year, 1913 to 1918, inclusive.

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD ON  
MAY 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. For certain articles relative prices are not shown because quotations were not secured for 1913.]

| Article.                   | Unit.            | Average money price, May 15— |         |         |         |         |         | Relative price, May 15— |       |       |       |       |       |
|----------------------------|------------------|------------------------------|---------|---------|---------|---------|---------|-------------------------|-------|-------|-------|-------|-------|
|                            |                  | 1913                         | 1914    | 1915    | 1916    | 1917    | 1918    | 1913                    | 1914  | 1915  | 1916  | 1917  | 1918  |
| Sirloin steak.....         | Pound.....       | \$0.257                      | \$0.259 | \$0.257 | \$0.278 | \$0.322 | \$0.400 | 101                     | 102   | 101   | 109   | 127   | 157   |
| Round steak.....           | do.....          | .223                         | .233    | .230    | .250    | .296    | .380    | 100                     | 105   | 103   | 112   | 133   | 170   |
| Rib roast.....             | do.....          | .199                         | .201    | .199    | .216    | .257    | .318    | 101                     | 102   | 101   | 110   | 130   | 161   |
| Chuck roast.....           | do.....          | .170                         | .163    | .175    | .218    | .278    | .....   | .....                   | ..... | ..... | ..... | ..... | ..... |
| Plate beef.....            | do.....          | .125                         | .123    | .131    | .166    | .219    | .....   | .....                   | ..... | ..... | ..... | ..... | ..... |
| Pork chops.....            | do.....          | .209                         | .222    | .209    | .229    | .306    | .367    | 100                     | 105   | 99    | 109   | 146   | 175   |
| Bacon.....                 | do.....          | .270                         | .267    | .264    | .284    | .416    | .505    | 100                     | 99    | 98    | 105   | 155   | 187   |
| Ham.....                   | do.....          | .268                         | .268    | .256    | .318    | .388    | .456    | 99                      | 99    | 95    | 118   | 144   | 170   |
| Lard.....                  | do.....          | .158                         | .156    | .151    | .201    | .278    | .329    | 100                     | 98    | 96    | 127   | 176   | 208   |
| Hens.....                  | do.....          | .222                         | .227    | .215    | .241    | .293    | .379    | 104                     | 106   | 101   | 113   | 138   | 178   |
| Salmon, canned.....        | do.....          | .....                        | .....   | .198    | .200    | .257    | .296    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Eggs.....                  | Dozen.....       | .263                         | .266    | .263    | .281    | .398    | .424    | 76                      | 77    | 76    | 82    | 116   | 123   |
| Butter.....                | Pound.....       | .359                         | .327    | .347    | .370    | .465    | .510    | 94                      | 85    | 91    | 97    | 122   | 133   |
| Cheese.....                | do.....          | .....                        | .....   | .235    | .248    | .338    | .334    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Milk.....                  | Quart.....       | .088                         | .089    | .087    | .088    | .105    | .132    | 99                      | 100   | 99    | 99    | 117   | 148   |
| Bread.....                 | 16-oz. loaf..... | .050                         | .055    | .064    | .062    | .085    | .087    | 100                     | 110   | 128   | 124   | 170   | 174   |
| Flour.....                 | Pound.....       | .033                         | .033    | .045    | .039    | .087    | .066    | 101                     | 99    | 139   | 119   | 266   | 200   |
| Corn meal.....             | do.....          | .030                         | .031    | .033    | .033    | .054    | .070    | 98                      | 103   | 109   | 108   | 178   | 233   |
| Rice.....                  | do.....          | .....                        | .....   | .091    | .091    | .105    | .123    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Potatoes.....              | do.....          | .016                         | .019    | .016    | .025    | .061    | .022    | 91                      | 112   | 89    | 140   | 352   | 129   |
| Onions.....                | do.....          | .....                        | .....   | .043    | .051    | .086    | .056    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Beans, navy.....           | do.....          | .....                        | .....   | .076    | .094    | .191    | .178    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Prunes.....                | do.....          | .....                        | .....   | .137    | .133    | .153    | .165    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Raisins, seeded.....       | do.....          | .....                        | .....   | .125    | .126    | .144    | .151    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Sugar.....                 | do.....          | .054                         | .050    | .068    | .085    | .100    | .091    | 97                      | 91    | 124   | 156   | 183   | 165   |
| Coffee.....                | do.....          | .....                        | .....   | .279    | .299    | .302    | .301    | .....                   | ..... | ..... | ..... | ..... | ..... |
| Tea.....                   | do.....          | .....                        | .....   | .546    | .546    | .557    | .638    | .....                   | ..... | ..... | ..... | ..... | ..... |
| All articles combined..... | .....            | .....                        | .....   | .....   | .....   | .....   | .....   | 97                      | 98    | 100   | 109   | 151   | 158   |

<sup>1</sup> 16 ounces, weight of dough.

The next table gives average retail prices for April 15, 1918, and for May 15, 1913, 1914, 1917, and 1918 in 17 of the larger cities. The prices for Atlanta, Ga., are not included, because over 20 per cent of the firms on the bureau's list failed to send in their reports for May, 1918.

## AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 17 SELECTED CITIES FOR MAY 15, 1913, 1914, 1917, APR. 15, 1918, AND MAY 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.                    | May 15— |         |         | Apr. 15— | May 15—       | May 15— |         |                | Apr. 15— | May 15— |
|----------------|--------------------------|---------|---------|---------|----------|---------------|---------|---------|----------------|----------|---------|
|                |                          | 1913    | 1914    | 1917    | 1918     | 1918          | 1913    | 1914    | 1917           | 1918     | 1918    |
|                |                          |         |         |         |          | Atlanta, Ga.  |         |         | Baltimore, Md. |          |         |
| Sirloin steak  | Pound                    | (1)     | (1)     | (1)     | (1)      | (1)           | \$0.233 | \$0.244 | \$0.326        | \$0.370  | \$0.409 |
| Round steak    | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .220    | .224    | .302           | .360     | .402    |
| Rib roast      | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .187    | .188    | .246           | .298     | .327    |
| Chuck roast    | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .156    | .220           | .265     | .281    |
| Plate beef     | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .131    | .182           | .217     | .227    |
| Pork chops     | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .183    | .196    | .290           | .376     | .386    |
| Bacon, sliced  | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .233    | .238    | .378           | .457     | .462    |
| Ham, sliced    | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .310    | .300    | .425           | .486     | .491    |
| Lard           | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .143    | .144    | .265           | .326     | .321    |
| Lamb           | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .180    | .188    | .313           | .361     | .388    |
| Hens           | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .226    | .218    | .298           | .....    | .398    |
| Salmon, canned | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .213           | .260     | .260    |
| Eggs           | Dozen                    | (1)     | (1)     | (1)     | (1)      | (1)           | .224    | .234    | .384           | .402     | .410    |
| Butter         | Pound                    | (1)     | (1)     | (1)     | (1)      | (1)           | .386    | .349    | .489           | .545     | .543    |
| Cheese         | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .350           | .357     | .346    |
| Milk           | Quart                    | (1)     | (1)     | (1)     | (1)      | (1)           | .088    | .087    | .110           | .130     | .130    |
| Bread          | 16-oz. loaf <sup>2</sup> | (1)     | (1)     | (1)     | (1)      | (1)           | .048    | .050    | .078           | .084     | .084    |
| Flour          | Pound                    | (1)     | (1)     | (1)     | (1)      | (1)           | .032    | .032    | .086           | .066     | .067    |
| Corn meal      | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .024    | .025    | .054           | .066     | .065    |
| Rice           | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .100           | .118     | .120    |
| Potatoes       | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .019    | .019    | .064           | .022     | .021    |
| Onions         | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .082           | .026     | .047    |
| Beans, navy    | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .184           | .183     | .181    |
| Prunes         | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .145           | .166     | .166    |
| Raisins        | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .143           | .152     | .151    |
| Sugar          | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .045    | .043    | .091           | .085     | .085    |
| Coffee         | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .235           | .286     | .285    |
| Tea            | do                       | (1)     | (1)     | (1)     | (1)      | (1)           | .....   | .....   | .550           | .679     | .663    |
|                |                          |         |         |         |          | Boston, Mass. |         |         | Buffalo, N. Y. |          |         |
| Sirloin steak  | do                       | \$0.370 | \$0.347 | \$0.415 | \$0.457  | \$0.492       | \$0.223 | \$0.228 | \$0.305        | \$0.339  | \$0.373 |
| Round steak    | do                       | .340    | .343    | .409    | .465     | .505          | .193    | .198    | .282           | .314     | .351    |
| Rib roast      | do                       | .244    | .247    | .293    | .329     | .342          | .175    | .172    | .242           | .271     | .299    |
| Chuck roast    | do                       | .....   | .168    | .248    | .274     | .302          | .....   | .156    | .214           | .245     | .273    |
| Plate beef     | do                       | .....   | .....   | .....   | .....    | .....         | .....   | .125    | .163           | .186     | .211    |
| Pork chops     | do                       | .234    | .230    | .317    | .363     | .360          | .198    | .222    | .319           | .361     | .380    |
| Bacon, sliced  | do                       | .254    | .250    | .408    | .466     | .472          | .220    | .212    | .415           | .455     | .475    |
| Ham, sliced    | do                       | .318    | .300    | .425    | .469     | .469          | .257    | .263    | .393           | .462     | .463    |
| Lard           | do                       | .160    | .156    | .279    | .329     | .331          | .143    | .139    | .268           | .323     | .312    |
| Lamb           | do                       | .235    | .227    | .314    | .364     | .369          | .187    | .180    | .281           | .333     | .339    |
| Hens           | do                       | .256    | .258    | .320    | .....    | .411          | .225    | .224    | .310           | .....    | .392    |
| Salmon, canned | do                       | .....   | .....   | .280    | .307     | .310          | .....   | .....   | .241           | .287     | .281    |
| Eggs           | Dozen                    | .321    | .325    | .487    | .529     | .524          | .254    | .260    | .409           | .434     | .434    |
| Butter         | Pound                    | .360    | .333    | .475    | .507     | .510          | .341    | .310    | .446           | .491     | .506    |
| Cheese         | do                       | .....   | .....   | .333    | .334     | .331          | .....   | .....   | .321           | .338     | .318    |
| Milk           | Quart                    | .089    | .089    | .110    | .145     | .145          | .080    | .080    | .110           | .130     | .130    |
| Bread          | 16-oz. loaf <sup>2</sup> | .052    | .052    | .081    | .080     | .081          | .050    | .044    | .085           | .088     | .089    |
| Flour          | Pound                    | .037    | .038    | .093    | .070     | .068          | .030    | .030    | .088           | .063     | .062    |
| Corn meal      | do                       | .036    | .035    | .065    | .080     | .078          | .025    | .028    | .057           | .078     | .072    |
| Rice           | do                       | .....   | .....   | .110    | .123     | .125          | .....   | .....   | .101           | .125     | .123    |
| Potatoes       | do                       | .018    | .020    | .061    | .025     | .025          | .014    | .018    | .066           | .022     | .021    |
| Onions         | do                       | .....   | .....   | .086    | .035     | .056          | .....   | .....   | .085           | .034     | .048    |
| Beans, navy    | do                       | .....   | .....   | .191    | .186     | .179          | .....   | .....   | .191           | .184     | .179    |
| Prunes         | do                       | .....   | .....   | .164    | .172     | .172          | .....   | .....   | .145           | .176     | .172    |
| Raisins        | do                       | .....   | .....   | .146    | .151     | .151          | .....   | .....   | .131           | .141     | .140    |
| Sugar          | do                       | .....   | .052    | .049    | .095     | .092          | .053    | .047    | .098           | .096     | .090    |
| Coffee         | do                       | .....   | .....   | .340    | .341     | .342          | .....   | .....   | .287           | .302     | .299    |
| Tea            | do                       | .....   | .....   | .634    | .639     | .648          | .....   | .....   | .510           | .570     | .576    |

<sup>1</sup> No averages are shown for this city because over 20 per cent of the firms on the bureau's list failed to report for May, 1918.

<sup>2</sup> 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 17 SELECTED CITIES FOR MAY 15, 1913, 1914, 1917, APR. 15, 1918, AND MAY 15, 1918—Continued.

| Article.       | Unit.       | May 15—       |         |         | Apr. 15— | May 15— | May 15—          |         |         | Apr. 15— | May 15— |
|----------------|-------------|---------------|---------|---------|----------|---------|------------------|---------|---------|----------|---------|
|                |             | 1913          | 1914    | 1917    | 1918     | 1918    | 1913             | 1914    | 1917    | 1918     | 1918    |
|                |             | Chicago, Ill. |         |         |          |         | Cleveland, Ohio. |         |         |          |         |
| Sirloin steak  | Pound       | \$0.226       | \$0.247 | \$0.293 | \$0.337  | \$0.356 | \$0.252          | \$0.261 | \$0.315 | \$0.352  | \$0.375 |
| Round steak    | do.         | .191          | .215    | .257    | .304     | .320    | .220             | .229    | .293    | .334     | .357    |
| Rib roast      | do.         | .191          | .204    | .244    | .288     | .301    | .200             | .197    | .250    | .281     | .301    |
| Chuck roast    | do.         |               | .162    | .209    | .249     | .285    |                  | .174    | .227    | .261     | .271    |
| Plate beef     | do.         |               | .122    | .161    | .194     | .203    |                  | .117    | .160    | .197     | .210    |
| Pork chops     | do.         | .180          | .208    | .274    | .330     | .331    | .210             | .229    | .325    | .352     | .354    |
| Bacon, sliced  | do.         | .314          | .316    | .427    | .519     | .533    | .271             | .278    | .427    | .488     | .489    |
| Ham, sliced    | do.         | .325          | .317    | .403    | .467     | .483    | .360             | .350    | .450    | .467     | .470    |
| Lard           | do.         | .147          | .151    | .263    | .317     | .322    | .165             | .162    | .297    | .330     | .319    |
| Lamb           | do.         | .203          | .209    | .311    | .355     | .350    | .210             | .207    | .306    | .343     | .349    |
| Hens           | do.         | .212          | .212    | .285    |          | .339    | .229             | .231    | .314    |          | .398    |
| Salmon, canned | do.         |               |         | .274    | .301     | .300    |                  |         | .253    | .286     | .285    |
| Eggs           | Dozen       | .237          | .235    | .392    | .380     | .396    | .258             | .253    | .437    | .415     | .424    |
| Butter         | Pound       | .325          | .299    | .431    | .460     | .475    | .368             | .342    | .472    | .496     | .508    |
| Cheese         | do.         |               |         | .334    | .353     | .343    |                  |         | .343    | .338     | .334    |
| Milk           | Quart       | .080          | .100    | .100    | .119     | .119    | .080             | .080    | .100    | .130     | .130    |
| Bread          | 16-oz. loaf | .054          | .054    | .085    | .089     | .089    | .049             | .050    | .090    | .086     | .088    |
| Flour          | Pound       | .028          | .029    | .082    | .062     | .061    | .032             | .032    | .092    | .067     | .067    |
| Corn meal      | do.         | .029          | .028    | .057    | .072     | .071    | .027             | .029    | .053    | .071     | .071    |
| Rice           | do.         |               | .102    | .122    | .122     | .126    |                  |         | .106    | .120     | .121    |
| Potatoes       | do.         | .013          | .016    | .055    | .017     | .018    | .015             | .019    | .071    | .021     | .020    |
| Onions         | do.         |               |         | .070    | .023     | .037    |                  |         | .078    | .029     | .046    |
| Beans, navy    | do.         |               |         | .196    | .178     | .177    |                  |         | .213    | .176     | .173    |
| Prunes         | do.         |               |         | .155    | .163     | .167    |                  |         | .164    | .172     | .168    |
| Raisins        | do.         |               |         | .147    | .150     | .149    |                  |         | .139    | .146     | .142    |
| Sugar          | do.         | .049          | .049    | .099    | .087     | .087    | .051             | .050    | .102    | .090     | .090    |
| Coffee         | do.         |               |         | .289    | .281     | .291    |                  |         | .288    | .298     | .299    |
| Tea            | do.         |               |         | .537    | .569     | .584    |                  |         | .492    | .596     | .596    |
|                |             | Denver, Colo. |         |         |          |         | Detroit, Mich.   |         |         |          |         |
| Sirloin steak  | do.         | \$0.239       | \$0.229 | \$0.304 | \$0.367  | \$0.395 | \$0.238          | \$0.251 | \$0.282 | \$0.344  | \$0.377 |
| Round steak    | do.         | .218          | .210    | .280    | .345     | .382    | .194             | .216    | .248    | .318     | .348    |
| Rib roast      | do.         | .178          | .167    | .233    | .276     | .303    | .192             | .200    | .254    | .288     | .318    |
| Chuck roast    | do.         |               | .161    | .203    | .252     | .282    |                  | .163    | .190    | .248     | .270    |
| Plate beef     | do.         |               | .097    | .144    | .181     | .200    |                  | .116    | .152    | .192     | .211    |
| Pork chops     | do.         | .203          | .210    | .303    | .344     | .355    | .192             | .210    | .268    | .339     | .348    |
| Bacon, sliced  | do.         | .280          | .274    | .447    | .533     | .532    | .235             | .233    | .388    | .478     | .485    |
| Ham, sliced    | do.         | .300          | .292    | .445    | .505     | .505    | .250             | .280    | .350    | .446     | .462    |
| Lard           | do.         | .163          | .158    | .288    | .346     | .346    | .161             | .157    | .260    | .331     | .332    |
| Lamb           | do.         | .179          | .177    | .290    | .331     | .341    | .178             | .190    | .268    | .370     | .382    |
| Hens           | do.         | .216          | .209    | .294    |          | .373    | .224             | .228    | .300    |          | .386    |
| Salmon, canned | do.         |               |         | .243    | .287     | .283    |                  |         | .243    | .293     | .297    |
| Eggs           | Dozen       | .236          | .246    | .401    | .412     | .416    | .250             | .236    | .334    | .413     | .429    |
| Butter         | Pound       | .343          | .300    | .441    | .448     | .470    | .347             | .309    | .434    | .475     | .499    |
| Cheese         | do.         |               |         | .346    | .361     | .352    |                  |         | .310    | .322     | .318    |
| Milk           | Quart       | .084          | .084    | .088    | .115     | .120    | .080             | .080    | .110    | .130     | .120    |
| Bread          | 16-oz. loaf | .048          | .048    | .088    | .086     | .086    | .050             | .050    | .088    | .083     | .085    |
| Flour          | Pound       | .026          | .026    | .073    | .057     | .056    | .031             | .031    | .088    | .069     | .068    |
| Corn meal      | do.         | .024          | .025    | .047    | .061     | .060    | .028             | .029    | .055    | .073     | .072    |
| Rice           | do.         |               |         | .102    | .125     | .131    |                  |         | .096    | .124     | .126    |
| Potatoes       | do.         |               | .012    | .017    | .061     | .016    | .013             | .016    | .059    | .017     | .016    |
| Onions         | do.         |               |         | .088    | .030     | .029    |                  |         | .086    | .038     | .047    |
| Beans, navy    | do.         |               |         | .190    | .172     | .171    |                  |         | .205    | .179     | .168    |
| Prunes         | do.         |               |         | .162    | .165     | .168    |                  |         | .133    | .175     | .169    |
| Raisins        | do.         |               |         | .145    | .145     | .146    |                  |         | .128    | .145     | .145    |
| Sugar          | do.         | .053          | .048    | .093    | .062     | .062    | .049             | .050    | .102    | .088     | .089    |
| Coffee         | do.         |               |         | .308    | .307     | .304    |                  |         | .273    | .304     | .304    |
| Tea            | do.         |               |         | .577    | .583     | .606    |                  |         | .450    | .582     | .585    |

<sup>1</sup> 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 17 SELECTED CITIES FOR MAY 15, 1913, 1914, 1917, APR. 15, 1918, AND MAY 15, 1918—Continued.

| Article.            | Unit.                          | May 15—           |         |         | Apr.    | May     | May 15—         |         |         | Apr.    | May     |
|---------------------|--------------------------------|-------------------|---------|---------|---------|---------|-----------------|---------|---------|---------|---------|
|                     |                                | 1913              | 1914    | 1917    | 1918    | 1918    | 1913            | 1914    | 1917    | 1918    | 1918    |
|                     |                                | Los Angeles, Cal. |         |         |         |         | Milwaukee, Wis. |         |         |         |         |
| Sirloin steak.....  | Pound.....                     | \$0.240           | \$0.233 | \$0.277 | \$0.315 | \$0.336 | \$0.220         | \$0.233 | \$0.296 | \$0.330 | \$0.356 |
| Round steak.....    | do.....                        | .208              | .213    | .254    | .288    | .316    | .205            | .213    | .274    | .313    | .340    |
| Rib roast.....      | do.....                        | .191              | .198    | .232    | .276    | .282    | .185            | .185    | .242    | .270    | .291    |
| Chuck roast.....    | do.....                        | .166              | .193    | .225    | .243    | .....   | .163            | .224    | .251    | .269    | .....   |
| Plate beef.....     | do.....                        | .135              | .158    | .187    | .205    | .....   | .118            | .160    | .188    | .208    | .....   |
| Pork chops.....     | do.....                        | .254              | .260    | .320    | .396    | .413    | .195            | .210    | .288    | .334    | .335    |
| Bacon, sliced.....  | do.....                        | .338              | .335    | .464    | .583    | .584    | .268            | .273    | .418    | .485    | .496    |
| Ham, sliced.....    | do.....                        | .350              | .348    | .472    | .539    | .555    | .273            | .277    | .382    | .453    | .456    |
| Lard.....           | do.....                        | .179              | .177    | .270    | .338    | .339    | .155            | .159    | .283    | .331    | .326    |
| Lamb.....           | do.....                        | .192              | .191    | .248    | .328    | .335    | .200            | .192    | .323    | .354    | .376    |
| Hens.....           | do.....                        | .258              | .281    | .269    | .....   | .383    | .220            | .224    | .308    | .....   | .351    |
| Salmon, canned..... | do.....                        | .....             | .....   | .327    | .319    | .377    | .....           | .....   | .254    | .290    | .279    |
| Eggs.....           | Dozen.....                     | .275              | .300    | .369    | .426    | .444    | .213            | .220    | .377    | .375    | .384    |
| Butter.....         | Pound.....                     | .350              | .335    | .409    | .441    | .452    | .335            | .306    | .441    | .465    | .479    |
| Cheese.....         | do.....                        | .....             | .....   | .324    | .335    | .338    | .....           | .....   | .316    | .303    | .298    |
| Milk.....           | Quart.....                     | .100              | .100    | .100    | .140    | .130    | .070            | .070    | .050    | .100    | .100    |
| Bread.....          | 16-oz. loaf <sup>1</sup> ..... | .055              | .053    | .087    | .078    | .078    | .050            | .052    | .099    | .080    | .080    |
| Flour.....          | Pound.....                     | .036              | .036    | .085    | .053    | .066    | .031            | .031    | .090    | .064    | .066    |
| Corn meal.....      | do.....                        | .032              | .035    | .094    | .083    | .074    | .030            | .033    | .065    | .082    | .073    |
| Rice.....           | do.....                        | .....             | .....   | .103    | .121    | .125    | .....           | .....   | .107    | .124    | .126    |
| Potatoes.....       | do.....                        | .011              | .020    | .033    | .017    | .020    | .011            | .016    | .061    | .016    | .017    |
| Onions.....         | do.....                        | .....             | .....   | .065    | .022    | .028    | .....           | .....   | .086    | .026    | .037    |
| Beans, navy.....    | do.....                        | .....             | .....   | .191    | .171    | .170    | .....           | .....   | .208    | .184    | .181    |
| Prunes.....         | do.....                        | .....             | .....   | .164    | .163    | .169    | .....           | .....   | .160    | .158    | .160    |
| Raisins.....        | do.....                        | .....             | .....   | .124    | .138    | .147    | .....           | .....   | .150    | .151    | .149    |
| Sugar.....          | do.....                        | .053              | .049    | .088    | .086    | .086    | .053            | .049    | .102    | .089    | .089    |
| Coffee.....         | do.....                        | .....             | .....   | .304    | .303    | .303    | .....           | .....   | .283    | .270    | .265    |
| Tea.....            | do.....                        | .....             | .....   | .545    | .606    | .616    | .....           | .....   | .555    | .623    | .534    |
|                     |                                | New Orleans, La.  |         |         |         |         | New York, N. Y. |         |         |         |         |
| Sirloin steak.....  | do.....                        | \$0.220           | \$0.235 | \$0.287 | \$0.317 | \$0.341 | \$0.263         | \$0.263 | \$0.321 | \$0.380 | \$0.400 |
| Round steak.....    | do.....                        | .190              | .204    | .246    | .286    | .309    | .250            | .257    | .324    | .384    | .406    |
| Rib roast.....      | do.....                        | .200              | .211    | .217    | .283    | .302    | .223            | .219    | .275    | .324    | .351    |
| Chuck roast.....    | do.....                        | .....             | .154    | .191    | .224    | .241    | .....           | .165    | .220    | .259    | .278    |
| Plate beef.....     | do.....                        | .....             | .124    | .156    | .184    | .189    | .....           | .151    | .197    | .242    | .257    |
| Pork chops.....     | do.....                        | .225              | .239    | .308    | .364    | .375    | .218            | .230    | .322    | .367    | .382    |
| Bacon, sliced.....  | do.....                        | .298              | .303    | .481    | .501    | .508    | .253            | .256    | .404    | .467    | .470    |
| Ham, sliced.....    | do.....                        | .260              | .260    | .385    | .416    | .434    | 2.203           | 2.199   | 2.288   | 2.337   | 2.338   |
| Lard.....           | do.....                        | .149              | .148    | .267    | .325    | .326    | .157            | .155    | .271    | .334    | .326    |
| Lamb.....           | do.....                        | .201              | .214    | .304    | .354    | .386    | .176            | .170    | .272    | .318    | .335    |
| Hens.....           | do.....                        | .211              | .223    | .287    | .....   | .357    | .222            | .220    | .303    | .....   | .397    |
| Salmon, canned..... | do.....                        | .....             | .....   | .288    | .310    | .311    | .....           | .....   | .292    | .357    | .339    |
| Eggs.....           | Dozen.....                     | .235              | .234    | .368    | .382    | .371    | .308            | .328    | .450    | .476    | .480    |
| Butter.....         | Pound.....                     | .350              | .320    | .457    | .508    | .509    | .354            | .319    | .457    | .493    | .518    |
| Cheese.....         | do.....                        | .....             | .....   | .345    | .337    | .319    | .....           | .....   | .340    | .338    | .338    |
| Milk.....           | Quart.....                     | .100              | .097    | .096    | .142    | .143    | .090            | .090    | .109    | .140    | .130    |
| Bread.....          | 16-oz. loaf <sup>1</sup> ..... | .046              | .043    | .081    | .077    | .078    | .033            | .054    | .087    | .086    | .086    |
| Flour.....          | Pound.....                     | .038              | .037    | .087    | .073    | .072    | .032            | .032    | .092    | .070    | .071    |
| Corn meal.....      | do.....                        | .026              | .028    | .053    | .053    | .062    | .034            | .035    | .095    | .084    | .080    |
| Rice.....           | do.....                        | .....             | .....   | .098    | .107    | .112    | .....           | .....   | .100    | .121    | .121    |
| Potatoes.....       | do.....                        | .019              | .023    | .064    | .025    | .020    | .025            | .026    | .075    | .035    | .028    |
| Onions.....         | do.....                        | .....             | .....   | .068    | .030    | .024    | .....           | .....   | .085    | .036    | .054    |
| Beans, navy.....    | do.....                        | .....             | .....   | .182    | .167    | .163    | .....           | .....   | .189    | .182    | .179    |
| Prunes.....         | do.....                        | .....             | .....   | .151    | .160    | .162    | .....           | .....   | .157    | .174    | .171    |
| Raisins.....        | do.....                        | .....             | .....   | .148    | .154    | .153    | .....           | .....   | .139    | .147    | .148    |
| Sugar.....          | do.....                        | .051              | .047    | .099    | .088    | .088    | .048            | .044    | .091    | .068    | .088    |
| Coffee.....         | do.....                        | .....             | .....   | .264    | .248    | .246    | .....           | .....   | .263    | .267    | .273    |
| Tea.....            | do.....                        | .....             | .....   | .610    | .581    | .583    | .....           | .....   | .492    | .527    | .546    |

<sup>1</sup> 16 ounces, weight of dough.<sup>2</sup> Whole.



AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 17 SELECTED CITIES FOR MAY 15, 1913, 1914, 1917, APR. 15, 1918, AND MAY 15, 1918—Continued.

| Article.            | Unit.                          | May 15—           |         |         | Apr. 15— | May 15— | May 15—             |         |         | Apr. 15— | May 15— |
|---------------------|--------------------------------|-------------------|---------|---------|----------|---------|---------------------|---------|---------|----------|---------|
|                     |                                | 1913              | 1914    | 1917    | 1918     | 1918    | 1913                | 1914    | 1917    | 1918     | 1918    |
|                     |                                | Philadelphia, Pa. |         |         |          |         | Pittsburgh, Pa.     |         |         |          |         |
| Sirloin steak.....  | Pound.....                     | \$0.300           | \$0.300 | \$0.368 | \$0.433  | \$0.474 | \$0.270             | \$0.277 | \$0.343 | \$0.400  | \$0.445 |
| Round steak.....    | do.....                        | .256              | .263    | .331    | .399     | .443    | .233                | .245    | .309    | .373     | .413    |
| Rib roast.....      | do.....                        | .223              | .224    | .276    | .330     | .360    | .218                | .215    | .261    | .317     | .349    |
| Chuck roast.....    | do.....                        | .178              | .178    | .229    | .286     | .319    | .170                | .235    | .280    | .307     | .307    |
| Plate beef.....     | do.....                        | .121              | .121    | .158    | .201     | .217    | .128                | .164    | .200    | .227     | .227    |
| Pork chops.....     | do.....                        | .208              | .230    | .318    | .380     | .400    | .220                | .233    | .323    | .378     | .385    |
| Bacon, sliced.....  | do.....                        | .256              | .264    | .406    | .479     | .500    | .288                | .291    | .421    | .509     | .515    |
| Ham, sliced.....    | do.....                        | .308              | .301    | .446    | .499     | .517    | .294                | .305    | .436    | .483     | .500    |
| Lard.....           | do.....                        | .153              | .153    | .276    | .334     | .329    | .155                | .158    | .275    | .329     | .334    |
| Lamb.....           | do.....                        | .214              | .204    | .307    | .364     | .381    | .212                | .223    | .330    | .384     | .395    |
| Hens.....           | do.....                        | .230              | .242    | .311    | .377     | .424    | .273                | .276    | .353    | .433     | .433    |
| Salmon, canned..... | do.....                        | .233              | .234    | .287    | .287     | .296    | .233                | .233    | .252    | .308     | .312    |
| Eggs.....           | Dozen.....                     | .261              | .273    | .413    | .440     | .444    | .241                | .252    | .409    | .424     | .457    |
| Butter.....         | Pound.....                     | .403              | .380    | .525    | .562     | .580    | .372                | .338    | .471    | .513     | .524    |
| Cheese.....         | do.....                        | .333              | .333    | .361    | .369     | .370    | .333                | .333    | .331    | .352     | .339    |
| Milk.....           | Quart.....                     | .080              | .080    | .090    | .120     | .120    | .086                | .092    | .103    | .135     | .125    |
| Bread.....          | 16-oz. loaf <sup>1</sup> ..... | .043              | .043    | .079    | .074     | .083    | .048                | .047    | .092    | .087     | .085    |
| Flour.....          | Pound.....                     | .031              | .031    | .088    | .071     | .071    | .031                | .032    | .089    | .067     | .067    |
| Corn meal.....      | do.....                        | .027              | .027    | .046    | .075     | .072    | .027                | .030    | .058    | .081     | .075    |
| Rice.....           | do.....                        | .102              | .102    | .129    | .130     | .130    | .102                | .102    | .101    | .124     | .124    |
| Potatoes.....       | do.....                        | .023              | .027    | .072    | .029     | .026    | .016                | .018    | .097    | .023     | .023    |
| Onions.....         | do.....                        | .077              | .077    | .036    | .053     | .053    | .077                | .077    | .086    | .035     | .054    |
| Beans, navy.....    | do.....                        | .180              | .182    | .177    | .177     | .177    | .180                | .180    | .201    | .187     | .184    |
| Prunes.....         | do.....                        | .149              | .168    | .168    | .168     | .168    | .149                | .149    | .149    | .176     | .174    |
| Raisins.....        | do.....                        | .134              | .144    | .143    | .143     | .143    | .134                | .134    | .146    | .147     | .141    |
| Sugar.....          | do.....                        | .049              | .042    | .089    | .087     | .087    | .055                | .055    | .107    | .097     | .096    |
| Coffee.....         | do.....                        | .274              | .273    | .272    | .272     | .272    | .274                | .274    | .284    | .301     | .294    |
| Tea.....            | do.....                        | .571              | .581    | .591    | .591     | .591    | .571                | .571    | .646    | .735     | .727    |
|                     |                                | St. Louis, Mo.    |         |         |          |         | San Francisco, Cal. |         |         |          |         |
| Sirloin steak.....  | do.....                        | \$0.233           | \$0.268 | \$0.312 | \$0.348  | \$0.370 | \$0.203             | \$0.207 | \$0.232 | \$0.291  | \$0.331 |
| Round steak.....    | do.....                        | .211              | .242    | .295    | .342     | .361    | .190                | .197    | .223    | .290     | .329    |
| Rib roast.....      | do.....                        | .180              | .202    | .247    | .292     | .303    | .207                | .217    | .224    | .281     | .305    |
| Chuck roast.....    | do.....                        | .157              | .157    | .205    | .240     | .255    | .155                | .159    | .216    | .242     | .242    |
| Plate beef.....     | do.....                        | .139              | .139    | .157    | .196     | .209    | .139                | .150    | .151    | .205     | .224    |
| Pork chops.....     | do.....                        | .195              | .202    | .290    | .323     | .332    | .240                | .247    | .293    | .382     | .398    |
| Bacon, sliced.....  | do.....                        | .253              | .250    | .383    | .482     | .479    | .328                | .337    | .432    | .549     | .565    |
| Ham, sliced.....    | do.....                        | .267              | .275    | .378    | .470     | .470    | .300                | .320    | .405    | .506     | .504    |
| Lard.....           | do.....                        | .137              | .126    | .254    | .299     | .293    | .183                | .174    | .282    | .338     | .340    |
| Lamb.....           | do.....                        | .190              | .193    | .314    | .361     | .379    | .167                | .180    | .232    | .321     | .336    |
| Hens.....           | do.....                        | .185              | .194    | .268    | .330     | .252    | .248                | .283    | .333    | .406     | .406    |
| Salmon, canned..... | do.....                        | .227              | .227    | .293    | .294     | .294    | .227                | .227    | .233    | .254     | .258    |
| Eggs.....           | Dozen.....                     | .200              | .211    | .378    | .364     | .373    | .245                | .300    | .395    | .419     | .430    |
| Butter.....         | Pound.....                     | .333              | .313    | .465    | .499     | .510    | .336                | .314    | .444    | .452     | .471    |
| Cheese.....         | do.....                        | .317              | .317    | .330    | .311     | .311    | .317                | .317    | .301    | .335     | .313    |
| Milk.....           | Quart.....                     | .080              | .080    | .100    | .120     | .120    | .100                | .100    | .100    | .121     | .121    |
| Bread.....          | 16-oz. loaf <sup>1</sup> ..... | .049              | .050    | .089    | .088     | .087    | .052                | .052    | .083    | .084     | .084    |
| Flour.....          | Pound.....                     | .030              | .029    | .078    | .062     | .062    | .033                | .034    | .081    | .062     | .066    |
| Corn meal.....      | do.....                        | .021              | .026    | .047    | .066     | .064    | .034                | .035    | .065    | .074     | .076    |
| Rice.....           | do.....                        | .092              | .092    | .121    | .122     | .122    | .092                | .092    | .101    | .121     | .124    |
| Potatoes.....       | do.....                        | .013              | .017    | .058    | .020     | .020    | .014                | .022    | .054    | .022     | .022    |
| Onions.....         | do.....                        | .088              | .088    | .028    | .044     | .044    | .088                | .088    | .085    | .022     | .023    |
| Beans, navy.....    | do.....                        | .197              | .177    | .177    | .177     | .177    | .197                | .197    | .190    | .157     | .162    |
| Prunes.....         | do.....                        | .149              | .167    | .166    | .166     | .166    | .149                | .149    | .139    | .135     | .137    |
| Raisins.....        | do.....                        | .145              | .167    | .167    | .167     | .167    | .145                | .145    | .138    | .133     | .136    |
| Sugar.....          | do.....                        | .052              | .046    | .098    | .086     | .086    | .053                | .049    | .087    | .086     | .086    |
| Coffee.....         | do.....                        | .227              | .276    | .276    | .276     | .276    | .227                | .227    | .300    | .303     | .302    |
| Tea.....            | do.....                        | .533              | .670    | .670    | .670     | .670    | .533                | .533    | .513    | .528     | .535    |

<sup>1</sup> 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 17 SELECTED CITIES FOR MAY 15, 1913, 1914, 1917, APR. 15, 1918, AND MAY 15, 1918—Concluded.

| Article.            | Unit.            | May 15—        |         |         | Apr.    | May     | May 15—           |         |         | Apr.    | May     |
|---------------------|------------------|----------------|---------|---------|---------|---------|-------------------|---------|---------|---------|---------|
|                     |                  | 1913           | 1914    | 1917    | 15—     | 15—     | 1913              | 1914    | 1917    | 15—     | 15—     |
|                     |                  | Seattle, Wash. |         |         |         |         | Washington, D. C. |         |         |         |         |
| Sirloin steak.....  | Pound.....       | \$0.238        | \$0.234 | \$0.276 | \$0.316 | \$0.391 | \$0.275           | \$0.284 | \$0.337 | \$0.411 | \$0.492 |
| Round steak.....    | do.....          | .215           | .210    | .260    | .298    | .375    | .236              | .246    | .314    | .388    | .466    |
| Rib roast.....      | do.....          | .196           | .188    | .246    | .267    | .320    | .219              | .215    | .275    | .315    | .365    |
| Chuck roast.....    | do.....          | .....          | .154    | .206    | .231    | .281    | .....             | .176    | .238    | .282    | .315    |
| Plate beef.....     | do.....          | .....          | .124    | .156    | .196    | .232    | .....             | .133    | .178    | .209    | .231    |
| Pork chops.....     | do.....          | .246           | .240    | .336    | .388    | .400    | .211              | .234    | .326    | .408    | .439    |
| Bacon, sliced.....  | do.....          | .317           | .330    | .480    | .546    | .548    | .265              | .249    | .409    | .488    | .503    |
| Ham, sliced.....    | do.....          | .308           | .300    | .406    | .478    | .495    | .280              | .295    | .420    | .484    | .494    |
| Lard.....           | do.....          | .176           | .159    | .279    | .330    | .333    | .148              | .141    | .275    | .335    | .340    |
| Lamb.....           | do.....          | .208           | .188    | .280    | .337    | .389    | .209              | .215    | .325    | .388    | .433    |
| Hens.....           | do.....          | .245           | .244    | .288    | .....   | .396    | .224              | .240    | .309    | .....   | .420    |
| Salmon, canned..... | do.....          | .....          | .250    | .....   | .288    | .290    | .....             | .....   | .243    | .291    | .290    |
| Eggs.....           | Dozen.....       | .250           | .254    | .391    | .441    | .452    | .239              | .247    | .399    | .442    | .433    |
| Butter.....         | Pound.....       | .350           | .311    | .438    | .496    | .494    | .387              | .350    | .483    | .546    | .552    |
| Cheese.....         | do.....          | .....          | .....   | .318    | .310    | .310    | .....             | .....   | .343    | .356    | .355    |
| Milk.....           | Quart.....       | .085           | .086    | .105    | .125    | .125    | .080              | .080    | .100    | .140    | .140    |
| Bread.....          | 16-oz. loaf..... | .049           | .053    | .088    | .088    | .092    | .050              | .049    | .087    | .082    | .081    |
| Flour.....          | Pound.....       | .030           | .029    | .073    | .058    | .058    | .037              | .037    | .088    | .066    | .067    |
| Corn meal.....      | do.....          | .030           | .031    | .056    | .076    | .077    | .024              | .025    | .049    | .063    | .063    |
| Rice.....           | do.....          | .....          | .097    | .122    | .129    | .129    | .....             | .....   | .105    | .125    | .127    |
| Potatoes.....       | do.....          | .010           | .013    | .046    | .016    | .017    | .021              | .018    | .071    | .025    | .023    |
| Onions.....         | do.....          | .....          | .089    | .033    | .033    | .033    | .....             | .....   | .084    | .036    | .056    |
| Beans, navy.....    | do.....          | .....          | .203    | .173    | .176    | .....   | .....             | .....   | .200    | .190    | .192    |
| Prunes.....         | do.....          | .....          | .134    | .148    | .152    | .....   | .....             | .....   | .158    | .175    | .176    |
| Raisins.....        | do.....          | .....          | .131    | .140    | .142    | .....   | .....             | .....   | .134    | .156    | .153    |
| Sugar.....          | do.....          | .059           | .053    | .093    | .091    | .091    | .049              | .047    | .094    | .088    | .089    |
| Coffee.....         | do.....          | .....          | .....   | .326    | .315    | .322    | .....             | .....   | .288    | .294    | .296    |
| Tea.....            | do.....          | .....          | .....   | .500    | .569    | .....   | .....             | .....   | .576    | .669    | .671    |

<sup>1</sup> 16 ounces, weight of dough.

The following table gives average retail prices in 28 smaller cities for April and May, 1918. For Houston, Tex., and Peoria, Ill., prices are shown for May only, as these cities have just been included in the bureau's list. The prices for Columbus, Ohio, are not included because over 20 per cent of the firms listed failed to send reports for May.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR APR. 15, 1918, AND MAY 15, 1918, FOR 28 CITIES, AND FOR MAY 15, 1918, FOR 2 CITIES, BY ARTICLES.

[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.                    | Apr. 15, 1918.   | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. | Apr. 15, 1918. | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. |
|----------------|--------------------------|------------------|---------------|-------------------|---------------|----------------|---------------|-------------------|---------------|-------------------|---------------|
|                |                          | Birmingham, Ala. |               | Bridgeport, Conn. |               | Butte, Mont.   |               | Charleston, S. C. |               | Cincinnati, Ohio. |               |
| Sirloin steak  | Pound                    | \$0.385          | \$0.421       | \$0.437           | \$0.473       | \$0.353        | \$0.395       | \$0.323           | \$0.367       | \$0.320           | \$0.349       |
| Round steak    | do                       | .348             | .393          | .410              | .439          | .324           | .355          | .323              | .379          | .314              | .343          |
| Rib roast      | do                       | .297             | .321          | .335              | .363          | .287           | .320          | .285              | .318          | .273              | .297          |
| Chuck roast    | do                       | .250             | .275          | .292              | .304          | .250           | .276          | .226              | .255          | .229              | .252          |
| Plate beef     | do                       | .208             | .197          | .190              | .206          | .185           | .209          | .201              | .218          | .201              | .215          |
| Pork chops     | do                       | .345             | .345          | .351              | .371          | .374           | .377          | .383              | .392          | .347              | .351          |
| Bacon, sliced  | do                       | .540             | .538          | .512              | .517          | .571           | .538          | .521              | .518          | .461              | .468          |
| Ham, sliced    | do                       | .455             | .456          | .501              | .511          | .477           | .493          | .470              | .470          | .456              | .469          |
| Lard           | do                       | .322             | .318          | .327              | .324          | .343           | .337          | .337              | .336          | .309              | .303          |
| Lamb           | do                       | .350             | .350          | .353              | .358          | .364           | .369          | .387              | .421          | .370              | .357          |
| Hens           | do                       |                  | .328          |                   | .405          |                | .399          |                   | .420          |                   | .369          |
| Salmon, canned | do                       | .285             | .264          | .368              | .355          | .373           | .383          | .280              | .280          | .263              | .262          |
| Eggs           | Dozen                    | .402             | .383          | .508              | .509          | .475           | .454          | .470              | .460          | .368              | .366          |
| Butter         | Pound                    | .545             | .533          | .484              | .501          | .544           | .514          | .534              | .534          | .489              | .501          |
| Cheese         | do                       | .348             | .334          | .340              | .338          | .354           | .350          | .341              | .327          | .353              | .335          |
| Milk           | Quart                    | .155             | .155          | .140              | .130          | .150           | .150          | .185              | .185          | .130              | .130          |
| Bread          | 16-oz. loaf <sup>1</sup> | .089             | .089          | .090              | .090          | .106           | .106          | .093              | .090          | .086              | .083          |
| Flour          | Pound                    | .068             | .070          | .070              | .070          | .068           | .067          | .074              | .073          | .069              | .067          |
| Corn meal      | do                       | .058             | .055          | .086              | .083          | .078           | .081          | .064              | .064          | .064              | .062          |
| Rice           | do                       | .120             | .120          | .128              | .127          | .129           | .133          | .093              | .093          | .117              | .121          |
| Potatoes       | do                       | .027             | .025          | .025              | .025          | .015           | .015          | .021              | .031          | .022              | .024          |
| Onions         | do                       | .032             | .051          | .037              | .053          | .037           | .030          | .044              | .061          | .028              | .045          |
| Beans, navy    | do                       | .185             | .184          | .179              | .176          | .176           | .175          | .193              | .194          | .164              | .158          |
| Prunes         | do                       | .160             | .153          | .170              | .174          | .164           | .162          | .163              | .167          | .156              | .154          |
| Raisins        | do                       | .153             | .169          | .158              | .152          | .149           | .148          | .150              | .150          | .143              | .155          |
| Sugar          | do                       | .092             | .092          | .095              | .095          | .100           | .100          | .090              | .090          | .090              | .090          |
| Coffee         | do                       | .323             | .331          | .320              | .315          | .421           | .425          | .274              | .274          | .273              | .271          |
| Tea            | do                       | .786             | .773          | .629              | .644          | .775           | .782          | .640              | .640          | .694              | .657          |

| Article.       | Unit.                    | Columbus, Ohio. |     | Dallas, Tex. |         | Fall River, Mass. |         | Houston, Tex. |         | Indianapolis, Ind. |         |
|----------------|--------------------------|-----------------|-----|--------------|---------|-------------------|---------|---------------|---------|--------------------|---------|
|                |                          | (2)             | (2) | (2)          | (2)     | (2)               | (2)     | (2)           | (2)     | (2)                | (2)     |
| Sirloin steak  | do                       | (2)             | (2) | \$0.364      | \$0.384 | \$0.483           | \$0.559 |               | \$0.354 | \$0.347            | \$0.373 |
| Round steak    | do                       | (2)             | (2) | .349         | .367    | .387              | .477    |               | .344    | .343               | .369    |
| Rib roast      | do                       | (2)             | (2) | .303         | .317    | .328              | .366    |               | .302    | .266               | .278    |
| Chuck roast    | do                       | (2)             | (2) | .275         | .283    | .284              | .309    |               | .257    | .248               | .261    |
| Plate beef     | do                       | (2)             | (2) | .224         | .240    |                   |         |               | .223    | .193               | .215    |
| Pork chops     | do                       | (2)             | (2) | .334         | .347    | .345              | .358    |               | .352    | .348               | .349    |
| Bacon, sliced  | do                       | (2)             | (2) | .537         | .533    | .456              | .475    |               | .531    | .494               | .502    |
| Ham, sliced    | do                       | (2)             | (2) | .492         | .473    | .436              | .455    |               | .459    | .465               | .479    |
| Lard           | do                       | (2)             | (2) | .332         | .340    | .317              | .318    |               | .319    | .318               | .319    |
| Lamb           | do                       | (2)             | (2) | .400         | .367    | .347              | .360    |               | .371    | .288               | .250    |
| Hens           | do                       | (2)             | (2) |              | .296    |                   | .391    |               | .360    |                    | .314    |
| Salmon, canned | do                       | (2)             | (2) | .290         | .281    | .294              | .286    |               | .295    | .250               | .249    |
| Eggs           | Dozen                    | (2)             | (2) | .360         | .378    | .553              | .554    |               | .396    | .361               | .268    |
| Butter         | Pound                    | (2)             | (2) | .509         | .497    | .498              | .499    |               | .500    | .488               | .492    |
| Cheese         | do                       | (2)             | (2) | .326         | .335    | .333              | .337    |               | .332    | .364               | .353    |
| Milk           | Quart                    | (2)             | (2) | .167         | .159    | .130              | .130    |               | .153    | .107               | .110    |
| Bread          | 16-oz. loaf <sup>1</sup> | (2)             | (2) | .085         | .089    | .089              | .090    |               | .080    | .089               | .089    |
| Flour          | Pound                    | (2)             | (2) | .065         | .069    | .074              | .073    |               | (2)     | .068               | .065    |
| Corn meal      | do                       | (2)             | (2) | .066         | .068    | .093              | .091    |               | .065    | .069               | .065    |
| Rice           | do                       | (2)             | (2) | .116         | .116    | .121              | .120    |               | .113    | .120               | .122    |
| Potatoes       | do                       | (2)             | (2) | .022         | .026    | .026              | .024    |               | .026    | .018               | .019    |
| Onions         | do                       | (2)             | (2) | .031         | .040    | .035              | .056    |               | .041    | .034               | .066    |
| Beans, navy    | do                       | (2)             | (2) | .184         | .182    | .182              | .179    |               | .168    | .183               | .179    |
| Prunes         | do                       | (2)             | (2) | .183         | .173    | .167              | .167    |               | .152    | .168               | .173    |
| Raisins        | do                       | (2)             | (2) | .154         | .158    | .157              | .155    |               | .164    | .174               | .171    |
| Sugar          | do                       | (2)             | (2) | .094         | .095    | .087              | .098    |               | .092    | .091               | .091    |
| Coffee         | do                       | (2)             | (2) | .363         | .342    | .320              | .322    |               | .277    | .293               | .295    |
| Tea            | do                       | (2)             | (2) | .873         | .844    | .517              | .547    |               | .604    | .767               | .765    |

<sup>1</sup> 16 ounces, weight of dough.  
<sup>2</sup> No prices are shown for this city, because over 20 per cent of the firms on the bureau's list failed to report for May, 1918.  
<sup>3</sup> No flour sold in Houston, Tex., on May 15, 1918.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR APR. 15, 1918,  
AND MAY 15, 1918, FOR 28 CITIES, AND FOR MAY 15, 1918, FOR 2 CITIES, BY ARTICLES—  
Continued.

| Article.            | Unit.                    | Apr. 15, 1918.     | May 15, 1918. | Apr. 15, 1918.   | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. | Apr. 15, 1918.  | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. |
|---------------------|--------------------------|--------------------|---------------|------------------|---------------|-------------------|---------------|-----------------|---------------|-------------------|---------------|
|                     |                          | Jacksonville, Fla. |               | Kansas City, Mo. |               | Little Rock, Ark. |               | Louisville, Ky. |               | Manchester, N. H. |               |
| Sirloin steak.....  | Pound.....               | \$0.353            | \$0.388       | \$0.360          | \$0.370       | \$0.350           | \$0.402       | \$0.342         | \$0.367       | \$0.473           | \$0.529       |
| Round steak.....    | do.....                  | .342               | .378          | .335             | .357          | .314              | .377          | .329            | .367          | .431              | .484          |
| Rib roast.....      | do.....                  | .277               | .301          | .280             | .282          | .283              | .338          | .268            | .296          | .294              | .327          |
| Chuck roast.....    | do.....                  | .242               | .255          | .241             | .253          | .245              | .285          | .238            | .263          | .261              | .294          |
| Plate beef.....     | do.....                  | .186               | .195          | .197             | .208          | .222              | .247          | .219            | .234          | .....             | .....         |
| Pork chops.....     | do.....                  | .354               | .369          | .329             | .330          | .338              | .356          | .353            | .358          | .340              | .352          |
| Bacon, sliced.....  | do.....                  | .511               | .520          | .506             | .525          | .531              | .553          | .515            | .513          | .468              | .475          |
| Ham, sliced.....    | do.....                  | .438               | .455          | .481             | .485          | .496              | .500          | .466            | .466          | .423              | .436          |
| Lard.....           | do.....                  | .331               | .331          | .343             | .346          | .334              | .337          | .322            | .317          | .344              | .340          |
| Lamb.....           | do.....                  | .345               | .357          | .303             | .313          | .378              | .400          | .388            | .388          | .350              | .355          |
| Hens.....           | do.....                  | .....              | .346          | .....            | .306          | .....             | .348          | .....           | .325          | .....             | .404          |
| Salmon, canned..... | do.....                  | .284               | .292          | .300             | .297          | .288              | .297          | .249            | .254          | .304              | .302          |
| Eggs.....           | Dozen.....               | .465               | .445          | .386             | .382          | .383              | .369          | .360            | .365          | .513              | .506          |
| Butter.....         | Pound.....               | .559               | .548          | .482             | .485          | .539              | .533          | .521            | .501          | .535              | .538          |
| Cheese.....         | do.....                  | .351               | .344          | .356             | .351          | .358              | .359          | .356            | .342          | .338              | .337          |
| Milk.....           | Quart.....               | .175               | .153          | .122             | .123          | .150              | .150          | .128            | .128          | .140              | .140          |
| Bread.....          | 16-oz. loaf <sup>1</sup> | .087               | .088          | .089             | .089          | .093              | .094          | .088            | .088          | .076              | .077          |
| Flour.....          | Pound.....               | .070               | .070          | .067             | .067          | .067              | .067          | .067            | .067          | .070              | .069          |
| Corn meal.....      | do.....                  | .065               | .063          | .070             | .069          | .066              | .067          | .065            | .063          | .078              | .078          |
| Rice.....           | do.....                  | .105               | .109          | .123             | .120          | .113              | .121          | .119            | .121          | .120              | .123          |
| Potatoes.....       | do.....                  | .027               | .029          | .019             | .023          | .023              | .025          | .019            | .023          | .025              | .026          |
| Onions.....         | do.....                  | .051               | .053          | .034             | .047          | .038              | .060          | .027            | .044          | .028              | .043          |
| Beans, navy.....    | do.....                  | .197               | .196          | .183             | .181          | .185              | .183          | .174            | .172          | .187              | .186          |
| Prunes.....         | do.....                  | .174               | .174          | .147             | .150          | .167              | .168          | .164            | .166          | .171              | .173          |
| Raisins.....        | do.....                  | .172               | .174          | .152             | .156          | .151              | .148          | .153            | .155          | .152              | .153          |
| Sugar.....          | do.....                  | .090               | .090          | .099             | .095          | .095              | .095          | .090            | .090          | .096              | .097          |
| Coffee.....         | do.....                  | .317               | .321          | .293             | .289          | .322              | .309          | .269            | .269          | .342              | .342          |
| Tea.....            | do.....                  | .734               | .729          | .656             | .656          | .793              | .773          | .693            | .701          | .595              | .604          |

| Article.            | Unit.                    | Apr. 15, 1918. | May 15, 1918. | Apr. 15, 1918.     | May 15, 1918. | Apr. 15, 1918. | May 15, 1918. | Apr. 15, 1918. | May 15, 1918. |
|---------------------|--------------------------|----------------|---------------|--------------------|---------------|----------------|---------------|----------------|---------------|
|                     |                          | Memphis, Tenn. |               | Minneapolis, Minn. |               | Mobile, Ala.   |               | Newark, N. J.  |               |
| Sirloin steak.....  | Pound.....               | \$0.361        | \$0.407       | \$0.311            | \$0.336       | \$0.324        | \$0.353       | \$0.415        | \$0.438       |
| Round steak.....    | do.....                  | .341           | .378          | .299               | .323          | .316           | .347          | .423           | .446          |
| Rib roast.....      | do.....                  | .291           | .323          | .261               | .276          | .294           | .315          | .344           | .366          |
| Chuck roast.....    | do.....                  | .249           | .285          | .232               | .256          | .247           | .269          | .305           | .315          |
| Plate beef.....     | do.....                  | .210           | .252          | .176               | .196          | .216           | .242          | .221           | .234          |
| Pork chops.....     | do.....                  | .340           | .354          | .315               | .318          | .371           | .390          | .379           | .402          |
| Bacon, sliced.....  | do.....                  | .509           | .514          | .493               | .496          | .498           | .539          | .462           | .459          |
| Ham, sliced.....    | do.....                  | .444           | .458          | .446               | .445          | .426           | .439          | 2.348          | 2.350         |
| Lard.....           | do.....                  | .324           | .321          | .321               | .322          | .328           | .322          | .342           | .342          |
| Lamb.....           | do.....                  | .355           | .400          | .318               | .324          | .359           | .364          | .378           | .386          |
| Hens.....           | do.....                  | .....          | .330          | .....              | .332          | .....          | .410          | .....          | .394          |
| Salmon, canned..... | do.....                  | .294           | .298          | .343               | .347          | .271           | .270          | .344           | .345          |
| Eggs.....           | Dozen.....               | .388           | .380          | .371               | .377          | .423           | .413          | .474           | .483          |
| Butter.....         | Pound.....               | .520           | .485          | .454               | .468          | .560           | .538          | .517           | .548          |
| Cheese.....         | do.....                  | .321           | .319          | .306               | .303          | .338           | .334          | .353           | .362          |
| Milk.....           | Quart.....               | .150           | .150          | .100               | .100          | .150           | .150          | .145           | .137          |
| Bread.....          | 16-oz. loaf <sup>1</sup> | .088           | .092          | .079               | .079          | .086           | .086          | .082           | .086          |
| Flour.....          | Pound.....               | .067           | .067          | .063               | .058          | .070           | .069          | .073           | .073          |
| Corn meal.....      | do.....                  | .062           | .059          | .057               | .056          | .069           | .069          | .085           | .079          |
| Rice.....           | do.....                  | .110           | .114          | .121               | .122          | .111           | .115          | .122           | .123          |
| Potatoes.....       | do.....                  | .020           | .021          | .015               | .015          | .029           | .027          | .030           | .029          |
| Onions.....         | do.....                  | .039           | .040          | .022               | .025          | .043           | .049          | .042           | .068          |
| Beans, navy.....    | do.....                  | .189           | .185          | .178               | .169          | .187           | .183          | .181           | .179          |
| Prunes.....         | do.....                  | .161           | .163          | .152               | .153          | .161           | .170          | .178           | .177          |
| Raisins.....        | do.....                  | .162           | .147          | .143               | .143          | .171           | .170          | .151           | .152          |
| Sugar.....          | do.....                  | .091           | .091          | .094               | .095          | .089           | .090          | .090           | .090          |
| Coffee.....         | do.....                  | .298           | .299          | .309               | .307          | .266           | .270          | .299           | .307          |
| Tea.....            | do.....                  | .791           | .775          | .510               | .504          | .625           | .615          | .563           | .571          |

<sup>1</sup> 16 ounces, weight of dough.

<sup>2</sup> Whole.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR APR. 15, 1918,  
AND MAY 15, 1918, FOR 23 CITIES, AND FOR MAY 15, 1918, FOR 2 CITIES, BY ARTICLES—  
Continued.

| Article.            | Unit.                    | Apr. 15,<br>1918.   | May 15,<br>1918. | Apr. 15,<br>1918. | May 15,<br>1918. | Apr. 15,<br>1918. | May 15,<br>1918. | Apr. 15,<br>1918. | May 15,<br>1918. |
|---------------------|--------------------------|---------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|
|                     |                          | New Haven,<br>Conn. |                  | Norfolk, Va.      |                  | Omaha, Nebr.      |                  | Peoria, Ill.      |                  |
| Sirloin steak.....  | Pound...                 | \$0.448             | \$0.487          | \$0.401           | \$0.432          | \$0.351           | \$0.383          | .....             | \$0.370          |
| Round steak.....    | do.....                  | .415                | .458             | .368              | .394             | .333              | .374             | .....             | .363             |
| Rib roast.....      | do.....                  | .341                | .363             | .319              | .350             | .260              | .294             | .....             | .275             |
| Chuck roast.....    | do.....                  | .298                | .328             | .279              | .306             | .242              | .278             | .....             | .263             |
| Plate beef.....     | do.....                  | .....               | .....            | .208              | .234             | .178              | .204             | .....             | .211             |
| Pork chops.....     | do.....                  | .346                | .353             | .356              | .372             | .323              | .335             | .....             | .331             |
| Bacon, sliced.....  | do.....                  | .511                | .504             | .476              | .468             | .503              | .515             | .....             | .523             |
| Ham, sliced.....    | do.....                  | .516                | .511             | .391              | .389             | .465              | .479             | .....             | .482             |
| Lard.....           | do.....                  | .338                | .337             | .345              | .341             | .342              | .342             | .....             | .335             |
| Lamb.....           | do.....                  | .365                | .368             | .395              | .424             | .333              | .359             | .....             | .400             |
| Hens.....           | do.....                  | .....               | .419             | .....             | .396             | .....             | .333             | .....             | .338             |
| Salmon, canned..... | do.....                  | .342                | .336             | .270              | .281             | .284              | .290             | .....             | .291             |
| Eggs.....           | Dozen.....               | .530                | .538             | .441              | .435             | .396              | .388             | .....             | .372             |
| Butter.....         | Pound.....               | .507                | .528             | .559              | .565             | .479              | .494             | .....             | .471             |
| Cheese.....         | do.....                  | .347                | .343             | .355              | .346             | .341              | .318             | .....             | .328             |
| Milk.....           | Quart.....               | .143                | .143             | .180              | .180             | .125              | .125             | .....             | .104             |
| Bread.....          | 16-oz. loaf <sup>1</sup> | .090                | .090             | .085              | .088             | .089              | .089             | .....             | .089             |
| Flour.....          | Pound.....               | .071                | .070             | .072              | .089             | .062              | .063             | .....             | .070             |
| Corn meal.....      | do.....                  | .083                | .080             | .065              | .063             | .063              | .064             | .....             | .062             |
| Rice.....           | do.....                  | .124                | .123             | .129              | .136             | .115              | .119             | .....             | .124             |
| Potatoes.....       | do.....                  | .027                | .026             | .028              | .028             | .019              | .020             | .....             | .020             |
| Onions.....         | do.....                  | .043                | .053             | .039              | .050             | .030              | .035             | .....             | .063             |
| Beans, navy.....    | do.....                  | .191                | .185             | .189              | .194             | .169              | .171             | .....             | .193             |
| Prunes.....         | do.....                  | .181                | .181             | .179              | .187             | .166              | .168             | .....             | .169             |
| Raisins.....        | do.....                  | .154                | .153             | .154              | .153             | .158              | .158             | .....             | .159             |
| Sugar.....          | do.....                  | .099                | .098             | .091              | .088             | .090              | .090             | .....             | .091             |
| Coffee.....         | do.....                  | .331                | .337             | .307              | .315             | .312              | .310             | .....             | .271             |
| Tea.....            | do.....                  | .614                | .629             | .755              | .827             | .638              | .649             | .....             | .620             |
|                     |                          | Portland, Oreg.     |                  | Providence, R. I. |                  | Richmond, Va.     |                  | Rochester, N. Y.  |                  |
| Sirloin steak.....  | do.....                  | \$0.314             | \$0.374          | \$0.564           | \$0.611          | \$0.373           | \$0.431          | \$0.348           | \$0.370          |
| Round steak.....    | do.....                  | .300                | .356             | .459              | .493             | .353              | .403             | .329              | .355             |
| Rib roast.....      | do.....                  | .282                | .3..             | .359              | .390             | .304              | .343             | .289              | .301             |
| Chuck roast.....    | do.....                  | .235                | .279             | .326              | .358             | .263              | .306             | .271              | .293             |
| Plate beef.....     | do.....                  | .194                | .227             | .....             | .....            | .217              | .255             | .199              | .218             |
| Pork chops.....     | do.....                  | .357                | .393             | .376              | .383             | .371              | .381             | .351              | .364             |
| Bacon, sliced.....  | do.....                  | .532                | .511             | .480              | .483             | .466              | .467             | .443              | .455             |
| Ham, sliced.....    | do.....                  | .473                | .497             | .529              | .540             | .430              | .428             | .445              | .446             |
| Lard.....           | do.....                  | .349                | .350             | .341              | .339             | .342              | .336             | .328              | .332             |
| Lamb.....           | do.....                  | .324                | .358             | .369              | .380             | .394              | .392             | .362              | .375             |
| Hens.....           | do.....                  | .....               | .375             | .....             | .421             | .....             | .382             | .....             | .425             |
| Salmon, canned..... | do.....                  | .350                | .354             | .334              | .329             | .237              | .233             | .296              | .289             |
| Eggs.....           | Dozen.....               | .404                | .423             | .525              | .521             | .427              | .420             | .443              | .426             |
| Butter.....         | Pound.....               | .499                | .506             | .528              | .526             | .561              | .565             | .507              | .511             |
| Cheese.....         | do.....                  | .341                | .326             | .339              | .341             | .357              | .355             | .338              | .327             |
| Milk.....           | Quart.....               | .127                | .126             | .145              | .145             | .147              | .143             | .125              | .125             |
| Bread.....          | 16-oz. loaf <sup>1</sup> | .087                | .096             | .091              | .091             | .089              | .089             | .083              | .088             |
| Flour.....          | Pound.....               | .058                | .056             | .070              | .070             | .067              | .067             | .067              | .067             |
| Corn meal.....      | do.....                  | .078                | .081             | .076              | .075             | .062              | .062             | .076              | .075             |
| Rice.....           | do.....                  | .125                | .127             | .122              | .121             | .132              | .138             | .128              | .128             |
| Potatoes.....       | do.....                  | .012                | .012             | .025              | .024             | .026              | .022             | .019              | .020             |
| Onions.....         | do.....                  | .025                | .024             | .031              | .040             | .042              | .063             | .023              | .051             |
| Beans, navy.....    | do.....                  | .153                | .153             | .185              | .180             | .196              | .194             | .178              | .176             |
| Prunes.....         | do.....                  | .133                | .134             | .181              | .181             | .163              | .161             | .184              | .186             |
| Raisins.....        | do.....                  | .136                | .139             | .146              | .148             | .148              | .148             | .151              | .150             |
| Sugar.....          | do.....                  | .090                | .089             | .096              | .094             | .093              | .093             | .090              | .090             |
| Coffee.....         | do.....                  | .320                | .323             | .339              | .343             | .279              | .276             | .295              | .299             |
| Tea.....            | do.....                  | .580                | .579             | .589              | .575             | .746              | .753             | .533              | .540             |

<sup>1</sup> 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR APR. 15, 1918, AND MAY 15, 1918, FOR 28 CITIES, AND FOR MAY 15, 1918, FOR 2 CITIES, BY ARTICLES—Concluded.

| Article.            | Unit.                    | Apr. 15, 1918.  | May 15, 1918. | Apr. 15, 1918.        | May 15, 1918. | Apr. 15, 1918. | May 15, 1918. | Apr. 15, 1918.    | May 15, 1918. |
|---------------------|--------------------------|-----------------|---------------|-----------------------|---------------|----------------|---------------|-------------------|---------------|
|                     |                          | St. Paul, Minn. |               | Salt Lake City, Utah. |               | Scranton, Pa.  |               | Springfield, Ill. |               |
|                     |                          |                 |               |                       |               |                |               |                   |               |
| Sirloin steak.....  | Pound...                 | \$0.335         | \$0.365       | \$0.305               | \$0.340       | \$0.385        | \$0.442       | \$0.375           | \$0.403       |
| Round steak.....    | do.....                  | .314            | .352          | .291                  | .327          | .364           | .405          | .375              | .394          |
| Rib roast.....      | do.....                  | .288            | .311          | .255                  | .279          | .321           | .346          | .289              | .301          |
| Chuck roast.....    | do.....                  | .245            | .281          | .230                  | .266          | .279           | .307          | .273              | .292          |
| Plate beef.....     | do.....                  | .179            | .203          | .192                  | .214          | .194           | .221          | .222              | .243          |
| Pork chops.....     | do.....                  | .316            | .317          | .363                  | .384          | .359           | .390          | .336              | .348          |
| Bacon, sliced.....  | do.....                  | .483            | .493          | .517                  | .521          | .501           | .521          | .496              | .498          |
| Ham, sliced.....    | do.....                  | .469            | .468          | .463                  | .475          | .473           | .473          | .465              | .475          |
| Lard.....           | do.....                  | .324            | .319          | .358                  | .360          | .325           | .324          | .335              | .329          |
| Lamb.....           | do.....                  | .329            | .324          | .338                  | .344          | .374           | .393          | .360              | .381          |
| Hens.....           | do.....                  |                 | .334          |                       | .390          |                | .424          |                   | .303          |
| Salmon, canned..... | do.....                  | .290            | .291          | .324                  | .329          | .294           | .287          | .275              | .274          |
| Eggs.....           | Dozen.....               | .366            | .371          | .408                  | .392          | .440           | .435          | .375              | .385          |
| Butter.....         | Pound.....               | .451            | .471          | .491                  | .495          | .506           | .508          | .508              | .520          |
| Cheese.....         | do.....                  | .319            | .311          | .335                  | .329          | .325           | .320          | .376              | .350          |
| Milk.....           | Quart.....               | .100            | .100          | .114                  | .114          | .126           | .120          | .111              | .111          |
| Bread.....          | 16-oz. loaf <sup>1</sup> | .074            | .075          | .089                  | .087          | .088           | .087          | .090              | .090          |
| Flour.....          | Pound.....               | .061            | .060          | .055                  | .063          | .070           | .069          | .064              | .063          |
| Corn meal.....      | do.....                  | .065            | .064          | .076                  | .076          |                | .075          | .084              | .081          |
| Rice.....           | do.....                  | .128            | .128          | .115                  | .123          | .125           | .121          | .128              | .128          |
| Potatoes.....       | do.....                  | .015            | .014          | .012                  | .013          | .022           | .021          | .018              | .020          |
| Onions.....         | do.....                  | .024            | .024          | .020                  | .033          | .042           | .055          | .022              | .047          |
| Beans, navy.....    | do.....                  | .183            | .185          | .173                  | .171          | .178           | .177          | .196              | .194          |
| Prunes.....         | do.....                  | .165            | .165          | .150                  | .148          | .172           | .164          | .168              | .167          |
| Raisins.....        | do.....                  | .145            | .145          | .142                  | .142          | .144           | .143          | .173              | .177          |
| Sugar.....          | do.....                  | .096            | .095          | .097                  | .090          | .090           | .090          | .094              | .094          |
| Coffee.....         | do.....                  | .316            | .316          | .354                  | .350          | .323           | .319          | .300              | .300          |
| Tea.....            | do.....                  | .553            | .543          | .622                  | .623          | .608           | .597          | .708              | .750          |

<sup>1</sup> 16 ounces, weight of dough.

### RETAIL PRICES OF DRY GOODS IN THE UNITED STATES.

Average retail prices of eight articles of dry goods on May 15, 1917, and May 15, 1918, are shown in the following table for 45 cities. Averages for May 15, 1918, only, are shown for Norfolk, Va., Peoria, Ill., and Portland, Me., as dry goods prices were not secured from these cities previous to May, 1918. Only standard brands have been included in the averages for the eight articles.

AVERAGE RETAIL PRICES OF 8 ARTICLES OF DRY GOODS IN 45 CITIES, MAY 15, 1917, AND MAY 15, 1918, AND IN 3 CITIES, MAY 15, 1918.

| Article.                | Unit.          | May 15—      |         | May 15—        |         | May 15—          |         | May 15—       |         | May 15—           |         |
|-------------------------|----------------|--------------|---------|----------------|---------|------------------|---------|---------------|---------|-------------------|---------|
|                         |                | 1917         | 1918    | 1917           | 1918    | 1917             | 1918    | 1917          | 1918    | 1917              | 1918    |
|                         |                | Atlanta, Ga. |         | Baltimore, Md. |         | Birmingham, Ala. |         | Boston, Mass. |         | Bridgeport, Conn. |         |
| Calico.....             | Per yard.....  | \$0.100      | \$0.200 | \$0.098        | \$0.235 | \$0.094          | \$0.210 | \$0.100       | \$0.197 | \$0.107           | \$0.147 |
| Percale.....            | do.....        | .158         | .299    | .190           | .316    | .190             | .305    | .177          | .325    | .170              | .250    |
| Gingham, apron.....     | do.....        | .131         | .267    | .122           | .276    | .138             | .258    | .125          | .305    | .123              | .260    |
| Gingham, dress.....     | do.....        | .146         | .306    | .160           | .290    | .162             | .287    | .166          | .310    | .163              | .350    |
| Muslin, bleached.....   | do.....        | .146         | .321    | .152           | .345    | .146             | .250    | .157          | .309    | .158              | .290    |
| Sheeting, bleached..... | do.....        | .423         | .730    | .430           | .798    | .385             | .639    | .465          | .751    | .443              | .723    |
| Sheets, bleached.....   | Per sheet..... | 1.068        | 1.964   | 1.058          | 2.077   | .960             | 1.594   | 1.242         | 1.950   | 1.140             | 1.668   |
| Outing flannel.....     | Per yard.....  | .142         | .306    | .157           | .300    | .158             | .287    | .160          | .391    | .125              | .235    |



AVERAGE RETAIL PRICES OF 8 ARTICLES OF DRY GOODS IN 45 CITIES, MAY 15, 1917,  
AND MAY 15, 1918, AND IN 3 CITIES, MAY 15, 1918—Continued.

| Articles.            | Unit.       | May 15—               |         | May 15—               |         | May 15—               |         | May 15—             |         | May 15—              |         |
|----------------------|-------------|-----------------------|---------|-----------------------|---------|-----------------------|---------|---------------------|---------|----------------------|---------|
|                      |             | 1917                  | 1918    | 1917                  | 1918    | 1917                  | 1918    | 1917                | 1918    | 1917                 | 1918    |
|                      |             | Buffalo,<br>N. Y.     |         | Butte, Mont.          |         | Charleston,<br>S. C.  |         | Chicago, Ill.       |         | Cincinnati,<br>Ohio. |         |
| Calico.....          | Per yard..  | \$0.102               | \$0.193 | \$0.100               | \$0.150 | \$0.113               | \$0.220 | \$0.100             | \$0.183 | \$0.098              | \$0.233 |
| Percalé.....         | do.....     | .190                  | .316    | .197                  | .300    | .178                  | .338    | .195                | .355    | .170                 | .283    |
| Gingham, apron..     | do.....     | .130                  | .277    | .100                  | .250    | .116                  | .258    | .125                | .250    | .125                 | .233    |
| Gingham, dress..     | do.....     | .170                  | .328    | .187                  | .317    | .154                  | .326    | .186                | .343    | .165                 | .290    |
| Muslin, bleached..   | do.....     | .164                  | .328    | .158                  | .333    | .142                  | .303    | .151                | .307    | .137                 | .269    |
| Sheeting, bleached.. | do.....     | .470                  | .784    | .479                  | .725    | .411                  | .670    | .439                | .822    | .398                 | .726    |
| Sheets, bleached..   | Per sheet.. | 1.279                 | 1.925   | 1.483                 | 2.000   | 1.197                 | 1.796   | 1.218               | 2.040   | 1.063                | 1.743   |
| Outing flannel....   | Per yard..  | .162                  | .355    | .173                  | .250    | .148                  | .318    | .174                | .349    | .150                 | .343    |
|                      |             | Cleveland,<br>Ohio.   |         | Columbus,<br>Ohio.    |         | Dallas, Tex.          |         | Denver,<br>Colo.    |         | Detroit,<br>Mich.    |         |
| Calico.....          | do.....     | \$0.090               | \$0.201 | \$0.110               | \$0.196 | \$0.098               | \$0.198 | \$0.100             | \$0.229 | \$0.101              | \$0.210 |
| Percalé.....         | do.....     | .168                  | .320    | .185                  | .336    | .159                  | .330    | .200                | .450    | .193                 | .325    |
| Gingham, apron..     | do.....     | .117                  | .267    | .125                  | .250    | .119                  | .225    | .117                | .300    | .130                 | .263    |
| Gingham, dress..     | do.....     | .157                  | .300    | .215                  | .350    | .150                  | .310    | .180                | .350    | .198                 | .275    |
| Muslin, bleached..   | do.....     | .158                  | .338    | .170                  | .309    | .140                  | .282    | .167                | .361    | .180                 | .345    |
| Sheeting, bleached.. | do.....     | .486                  | .776    | .456                  | .769    | .391                  | .672    | .496                | .939    | .471                 | .771    |
| Sheets, bleached..   | Per sheet.. | 1.190                 | 1.965   | 1.214                 | 1.906   | .981                  | 1.628   | 1.461               | 2.397   | 1.320                | 2.083   |
| Outing flannel....   | Per yard..  | .146                  | .360    | .164                  | .361    | .150                  | .276    | .188                | .390    | .159                 | .320    |
|                      |             | Fall River,<br>Mass.  |         | Indianapolis,<br>Ind. |         | Jacksonville,<br>Fla. |         | Kansas City,<br>Mo. |         | Little Rock,<br>Ark. |         |
| Calico.....          | do.....     | \$0.090               | \$0.190 | \$0.102               | \$0.200 | \$0.125               | \$0.193 | \$0.100             | \$0.235 | \$0.100              | \$0.229 |
| Percalé.....         | do.....     | .163                  | .363    | .183                  | .314    | .206                  | .320    | .178                | .350    | .185                 | .317    |
| Gingham, apron..     | do.....     | .120                  | .266    | .124                  | .245    | .150                  | .300    | .133                | .295    | .125                 | .233    |
| Gingham, dress..     | do.....     | .150                  | .310    | .188                  | .277    | .180                  | .343    | .166                | .326    | .158                 | .285    |
| Muslin, bleached..   | do.....     | .150                  | .304    | .147                  | .302    | .173                  | .338    | .160                | .319    | .157                 | .284    |
| Sheeting, bleached.. | do.....     | .440                  | .727    | .441                  | .752    | .460                  | .740    | .441                | .790    | .450                 | .700    |
| Sheets, bleached..   | Per sheet.. | 1.183                 | 1.690   | 1.070                 | 1.688   | 1.145                 | 2.003   | 1.150               | 1.760   | 1.108                | 1.708   |
| Outing flannel....   | Per yard..  | .145                  | .240    | .149                  | .326    | .150                  | .317    | .158                | .310    | .150                 | .291    |
|                      |             | Los Angeles,<br>Cal.  |         | Louisville,<br>Ky.    |         | Manchester,<br>N. H.  |         | Memphis,<br>Tenn.   |         | Milwaukee,<br>Wis.   |         |
| Calico.....          | do.....     | \$0.098               | .....   | \$0.093               | \$0.180 | \$0.117               | \$0.223 | \$0.099             | \$0.235 | \$0.100              | \$0.180 |
| Percalé.....         | do.....     | .194                  | \$. 329 | .181                  | .325    | .163                  | .305    | .200                | .333    | .180                 | .316    |
| Gingham, apron..     | do.....     | .133                  | .280    | .123                  | .263    | .125                  | .300    | .133                | .280    | .124                 | .258    |
| Gingham, dress..     | do.....     | .190                  | .297    | .161                  | .322    | .159                  | .353    | .167                | .333    | .177                 | .280    |
| Muslin, bleached..   | do.....     | .159                  | .339    | .148                  | .292    | .160                  | .334    | .146                | .322    | .155                 | .313    |
| Sheeting, bleached.. | do.....     | .455                  | .740    | .400                  | .689    | .469                  | .777    | .466                | .786    | .494                 | .752    |
| Sheets, bleached..   | Per sheet.. | 1.275                 | 1.944   | 1.147                 | 1.818   | 1.293                 | 2.101   | 1.181               | 1.981   | 1.367                | 2.248   |
| Outing flannel....   | Per yard..  | .161                  | .350    | .156                  | .377    | .142                  | .283    | .168                | .288    | .160                 | .320    |
|                      |             | Minneapolis,<br>Minn. |         | Newark,<br>N. J.      |         | New Haven,<br>Conn.   |         | New Orleans,<br>La. |         | New York,<br>N. Y.   |         |
| Calico.....          | do.....     | \$0.107               | \$0.183 | \$0.095               | \$0.200 | \$0.097               | \$0.190 | \$0.100             | \$0.200 | \$0.109              | \$0.265 |
| Percalé.....         | do.....     | .187                  | .313    | .183                  | .350    | .177                  | .290    | .150                | .400    | .180                 | .357    |
| Gingham, apron..     | do.....     | .129                  | .220    | .117                  | .260    | .125                  | .290    | .117                | .288    | .117                 | .281    |
| Gingham, dress..     | do.....     | .194                  | .306    | .179                  | .328    | .167                  | .296    | .150                | .313    | .168                 | .315    |
| Muslin, bleached..   | do.....     | .149                  | .313    | .149                  | .293    | .150                  | .331    | .125                | .267    | .152                 | .343    |
| Sheeting, bleached.. | do.....     | .427                  | .750    | .450                  | .776    | .417                  | .773    | .....               | .660    | .428                 | .809    |
| Sheets, bleached..   | Per sheet.. | 1.142                 | 1.998   | 1.130                 | 1.877   | 1.120                 | 1.878   | .900                | 1.667   | 1.112                | 2.055   |
| Outing flannel....   | Per yard..  | .155                  | .328    | .154                  | .354    | .151                  | .295    | .....               | .300    | .170                 | .366    |



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

<sup>1</sup> Quarter beginning that month.

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

| Year and month. | Great Britain:<br>21 foodstuffs;<br>600 towns.<br>Weighted. | Italy:<br>7 foodstuffs;<br>43 cities<br>(variable).<br>Not<br>weighted. | Netherlands:<br>29 articles;<br>40 cities.<br>Not<br>weighted. | New Zealand:<br>59 foodstuffs;<br>25 towns.<br>Weighted. | Norway:<br>24 (21 foods)<br>articles;<br>20 towns<br>(variable).<br>Not<br>weighted. | Sweden:<br>21 articles;<br>44 towns.<br>Weighted. |
|-----------------|---|---|--|--|--|---|
| 1914            |   |   |  |  |  |   |
| July.....       | 100   | 100   | <sup>1</sup> 100   | 100  | 100  | 100   |
| October.....    | 112   | 104   | <sup>2</sup> 107   | 102  | <sup>3</sup> 110   | <sup>3</sup> 107                                  |
| 1915            |   |   |  |  |  |   |
| January.....    | 118   | 108   | 114  | 111  | <sup>3</sup> 118   | <sup>3</sup> 113                                  |
| April.....      | 124   | 113   | 123  | 113  | <sup>3</sup> 125   | <sup>3</sup> 121                                  |
| July.....       | 132½  | 120   | 131  | 112  | <sup>3</sup> 129   | <sup>3</sup> 124                                  |
| October.....    | 140   | 127   | 128  | 112  | <sup>3</sup> 134   | <sup>3</sup> 128                                  |
| 1916            |   |   |  |  |  |   |
| January.....    | 145   | 133   | 135  | 116  | -----  | <sup>3</sup> 130                                  |
| April.....      | 149   | 132   | 142  | 118  | 155  | <sup>3</sup> 134                                  |
| July.....       | 161   | 132   | 150  | 119  | 176  | <sup>3</sup> 142                                  |
| October.....    | 168   | 132   | 158  | 120  | 182  | <sup>3</sup> 152                                  |
| 1917            |   |   |  |  |  |   |
| January.....    | 187   | 144   | 165  | 127  | -----  | 160   |
| February.....   | 189   | 154   | 165  | 126  | -----  | 166   |
| March.....      | 192   | 161   | 169  | 126  | 204  | 170   |
| April.....      | 194   | 164   | 170  | 127  | 212  | 175   |
| May.....        | 198   | 167   | 180  | 128  | 227  | 175   |
| June.....       | 202   | 171   | 184  | 128  | -----  | 175   |
| July.....       | 204   | 172   | 188  | 127  | -----  | 177   |
| August.....     | 202   | 178   | -----  | 127  | 261  | 181   |
| September.....  | 206   | 188   | -----  | 129  | -----  | 187   |
| October.....    | 197   | -----   | -----  | 130  | -----  | 192   |
| November.....   | 206   | -----   | -----  | 130  | -----  | 200   |
| December.....   | 205   | -----   | -----  | 132  | -----  | 212   |
| 1918            |   |   |  |  |  |   |
| January.....    | 206   | -----   | -----  | 133  | -----  | 221   |
| February.....   | 208   | -----   | -----  | -----  | -----  | 227   |
| March.....      | 207   | -----   | -----  | -----  | -----  | -----   |

<sup>1</sup> January-July.<sup>2</sup> August-December.<sup>3</sup> Quarter beginning that month.

## CHANGES IN WHOLESALE PRICES IN THE UNITED STATES, 1913 TO MAY, 1918.

The great increase that has taken place in the wholesale prices of important commodities in the United States since the outbreak of war in Europe is shown by the index numbers in the subjoined table. This increase, it will be seen, has been particularly great among farm products, cloths and clothing, and chemicals and drugs.

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

During the first five months of 1918 prices as a whole continued to advance, the bureau's weighted index number for May standing at 191 as compared with 181 for May, 1917, and 100 as the average for

the 12 months of 1913. In the period from May, 1917, to May, 1918, the index number of farm products increased from 196 to 212 and that of cloths and clothing from 173 to 234, while that of food articles declined from 191 to 178. In the same period the index number of fuel and lighting declined from 187 to 171, and that of metals and metal products from 217 to 177. On the other hand, the index number of lumber and building material increased from 117 to 147, that of chemicals and drugs from 164 to 209, and that of house-furnishing goods from 151 to 188 in this time. In the group of commodities classed as miscellaneous, including such important articles as cottonseed meal and oil, lubricating oil, malt, news-print and wrapping paper, rubber, plug and smoking tobacco, whisky, and wood pulp, the index number increased from 147 to 196.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES, BY GROUPS OF COMMODITIES, 1913, TO MAY, 1918.

[1913=100.]

| Year and month.            | Farm products. | Food, etc. | Cloths and clothing. | Fuel and lighting. | Metals and metal products. | Lumber and building materials. | Chemicals and drugs. | House-furnishing goods. | Miscellaneous. | All commodities. |
|----------------------------|----------------|------------|----------------------|--------------------|----------------------------|--------------------------------|----------------------|-------------------------|----------------|------------------|
| 1913                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| Average for year . . . . . | 100            | 100        | 100                  | 100                | 100                        | 100                            | 100                  | 100                     | 100            | 100              |
| January . . . . .          | 97             | 99         | 100                  | 99                 | 107                        | 100                            | 101                  | 100                     | 100            | 99               |
| April . . . . .            | 97             | 96         | 100                  | 99                 | 102                        | 101                            | 100                  | 100                     | 99             | 98               |
| July . . . . .             | 101            | 101        | 100                  | 100                | 98                         | 101                            | 99                   | 100                     | 102            | 101              |
| October . . . . .          | 103            | 102        | 100                  | 100                | 99                         | 98                             | 100                  | 100                     | 100            | 101              |
| 1914                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| Average for year . . . . . | 103            | 103        | 98                   | 92                 | 87                         | 97                             | 103                  | 103                     | 97             | 99               |
| January . . . . .          | 101            | 102        | 99                   | 99                 | 92                         | 98                             | 101                  | 103                     | 98             | 100              |
| April . . . . .            | 103            | 95         | 100                  | 98                 | 91                         | 99                             | 101                  | 103                     | 99             | 98               |
| July . . . . .             | 104            | 103        | 100                  | 90                 | 85                         | 97                             | 101                  | 103                     | 97             | 99               |
| August . . . . .           | 109            | 112        | 100                  | 89                 | 86                         | 97                             | 100                  | 103                     | 97             | 102              |
| September . . . . .        | 108            | 116        | 99                   | 87                 | 86                         | 96                             | 106                  | 103                     | 98             | 103              |
| October . . . . .          | 103            | 107        | 98                   | 87                 | 83                         | 96                             | 109                  | 103                     | 95             | 99               |
| November . . . . .         | 101            | 106        | 97                   | 87                 | 81                         | 95                             | 108                  | 103                     | 95             | 98               |
| December . . . . .         | 99             | 105        | 97                   | 87                 | 83                         | 94                             | 107                  | 103                     | 96             | 97               |
| 1915                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| Average for year . . . . . | 105            | 104        | 100                  | 87                 | 97                         | 94                             | 113                  | 101                     | 98             | 100              |
| January . . . . .          | 102            | 106        | 96                   | 86                 | 83                         | 94                             | 106                  | 101                     | 98             | 98               |
| February . . . . .         | 105            | 108        | 97                   | 86                 | 87                         | 95                             | 104                  | 101                     | 97             | 100              |
| March . . . . .            | 105            | 104        | 97                   | 86                 | 89                         | 94                             | 103                  | 101                     | 97             | 99               |
| April . . . . .            | 107            | 105        | 98                   | 84                 | 91                         | 94                             | 102                  | 101                     | 97             | 99               |
| May . . . . .              | 109            | 105        | 98                   | 83                 | 96                         | 94                             | 102                  | 101                     | 96             | 100              |
| June . . . . .             | 105            | 102        | 98                   | 83                 | 100                        | 93                             | 104                  | 101                     | 96             | 99               |
| July . . . . .             | 108            | 104        | 99                   | 84                 | 102                        | 94                             | 107                  | 101                     | 96             | 101              |
| August . . . . .           | 108            | 103        | 99                   | 85                 | 100                        | 93                             | 109                  | 101                     | 96             | 100              |
| September . . . . .        | 103            | 100        | 100                  | 88                 | 100                        | 93                             | 114                  | 101                     | 96             | 98               |
| October . . . . .          | 105            | 104        | 103                  | 90                 | 100                        | 93                             | 121                  | 101                     | 99             | 101              |
| November . . . . .         | 102            | 108        | 105                  | 93                 | 104                        | 95                             | 141                  | 101                     | 100            | 102              |
| December . . . . .         | 103            | 111        | 107                  | 96                 | 114                        | 97                             | 146                  | 101                     | 103            | 105              |
| 1916                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| Average for year . . . . . | 122            | 126        | 127                  | 115                | 148                        | 101                            | 143                  | 110                     | 121            | 123              |
| January . . . . .          | 108            | 114        | 110                  | 102                | 126                        | 99                             | 140                  | 105                     | 107            | 110              |
| February . . . . .         | 109            | 114        | 114                  | 102                | 132                        | 100                            | 144                  | 105                     | 106            | 111              |
| March . . . . .            | 111            | 115        | 117                  | 104                | 141                        | 101                            | 147                  | 105                     | 109            | 114              |
| April . . . . .            | 114            | 117        | 119                  | 105                | 147                        | 102                            | 150                  | 109                     | 111            | 116              |
| May . . . . .              | 116            | 119        | 122                  | 104                | 151                        | 102                            | 153                  | 109                     | 114            | 118              |
| June . . . . .             | 116            | 119        | 123                  | 105                | 149                        | 101                            | 150                  | 109                     | 111            | 118              |
| July . . . . .             | 118            | 121        | 126                  | 105                | 145                        | 98                             | 143                  | 111                     | 122            | 119              |
| August . . . . .           | 126            | 128        | 128                  | 107                | 145                        | 100                            | 132                  | 111                     | 123            | 123              |
| September . . . . .        | 131            | 134        | 131                  | 110                | 148                        | 100                            | 132                  | 111                     | 126            | 127              |
| October . . . . .          | 136            | 140        | 137                  | 128                | 151                        | 101                            | 135                  | 114                     | 132            | 133              |
| November . . . . .         | 145            | 150        | 146                  | 150                | 160                        | 103                            | 142                  | 115                     | 135            | 143              |
| December . . . . .         | 141            | 146        | 155                  | 163                | 185                        | 105                            | 143                  | 115                     | 136            | 146              |

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## INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES, BY GROUPS OF COMMODITIES, 1913, TO MAY, 1918—Concluded.

| Year and month.            | Farm products. | Food, etc. | Cloths and clothing. | Fuel and lighting. | Metals and metal products. | Lumber and building materials. | Chemicals and drugs. | House-furnishing goods. | Miscellaneous. | All commodities. |
|----------------------------|----------------|------------|----------------------|--------------------|----------------------------|--------------------------------|----------------------|-------------------------|----------------|------------------|
| 1917                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| Average for year . . . . . | 188            | 177        | 181                  | 169                | 208                        | 124                            | 185                  | 155                     | 153            | 175              |
| January . . . . .          | 147            | 150        | 161                  | 170                | 183                        | 106                            | 144                  | 128                     | 137            | 150              |
| February . . . . .         | 150            | 160        | 162                  | 178                | 190                        | 108                            | 146                  | 129                     | 138            | 155              |
| March . . . . .            | 162            | 161        | 163                  | 181                | 199                        | 111                            | 151                  | 129                     | 140            | 160              |
| April . . . . .            | 180            | 182        | 169                  | 178                | 208                        | 114                            | 155                  | 151                     | 144            | 171              |
| May . . . . .              | 196            | 191        | 173                  | 187                | 217                        | 117                            | 164                  | 151                     | 147            | 181              |
| June . . . . .             | 196            | 187        | 179                  | 193                | 239                        | 127                            | 165                  | 162                     | 152            | 184              |
| July . . . . .             | 198            | 180        | 187                  | 183                | 257                        | 132                            | 185                  | 165                     | 150            | 185              |
| August . . . . .           | 204            | 180        | 193                  | 159                | 249                        | 133                            | 198                  | 165                     | 155            | 184              |
| September . . . . .        | 203            | 178        | 193                  | 155                | 228                        | 134                            | 203                  | 165                     | 154            | 182              |
| October . . . . .          | 207            | 183        | 194                  | 143                | 182                        | 134                            | 242                  | 165                     | 162            | 180              |
| November . . . . .         | 211            | 184        | 202                  | 151                | 173                        | 135                            | 232                  | 175                     | 164            | 182              |
| December . . . . .         | 204            | 185        | 206                  | 153                | 173                        | 135                            | 230                  | 175                     | 164            | 181              |
| 1918                       |                |            |                      |                    |                            |                                |                      |                         |                |                  |
| January . . . . .          | 205            | 188        | 209                  | 169                | 173                        | 136                            | 216                  | 188                     | 177            | 185              |
| February . . . . .         | 207            | 187        | 213                  | 171                | 175                        | 137                            | 217                  | 188                     | 181            | 187              |
| March . . . . .            | 211            | 178        | 220                  | 171                | 175                        | 142                            | 217                  | 188                     | 184            | 187              |
| April . . . . .            | 217            | 179        | 230                  | 170                | 176                        | 145                            | 214                  | 188                     | 192            | 191              |
| May <sup>1</sup> . . . . . | 212            | 178        | 234                  | 171                | 177                        | 147                            | 209                  | 188                     | 196            | 191              |

<sup>1</sup> Preliminary.

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

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

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

To assist in comparing wholesale with retail price fluctuations, the differential between the two series of quotations at successive dates



is given. It should not be assumed, however, that this differential represents even approximately the margin of profit received by the retailer since, in addition to possible differences of grade between the articles shown at wholesale and retail, various items of handling cost are included in the figure.

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

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

| Article and city.                     | Unit. | 1913:<br>Average<br>for<br>year. | July.   |         |         | 1917    |         |         |         | 1918    |         |         |
|---------------------------------------|-------|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                       |       |                                  | 1914    | 1915    | 1916    | Jan.    | Apr.    | July.   | Oct.    | Jan.    | Apr.    | May.    |
| Beef, Chicago:                        |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Steer loin ends . . . . . W . . .     | Lb.   | \$0.168                          | \$0.175 | \$0.160 | \$0.205 | \$0.200 | \$0.200 | \$0.190 | \$0.235 | \$0.200 | \$0.230 | \$0.280 |
| Sirloin steak . . . . . R . . .       | Lb.   | .232                             | .260    | .258    | .281    | .265    | .293    | .302    | .306    | .302    | .337    | .356    |
| Price differential . . . . .          |       | .064                             | .085    | .098    | .076    | .065    | .093    | .112    | .071    | .102    | .107    | .076    |
| Beef, Chicago:                        |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Steer rounds, No. 2 . . . . . W . . . | Lb.   | .131                             | .145    | .143    | .145    | .120    | .155    | .170    | .190    | .165    | .185    | .220    |
| Round steak . . . . . R . . .         | Lb.   | .202                             | .253    | .228    | .241    | .227    | .256    | .266    | .273    | .273    | .304    | .320    |
| Price differential . . . . .          |       | .071                             | .088    | .085    | .096    | .107    | .101    | .096    | .083    | .108    | .119    | .100    |
| Beef, Chicago:                        |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Steer ribs, No. 2 . . . . . W . . .   | Lb.   | .157                             | .165    | .145    | .175    | .160    | .210    | .200    | .230    | .200    | .220    | .300    |
| Rib roast . . . . . R . . .           | Lb.   | .195                             | .212    | .213    | .229    | .223    | .241    | .246    | .247    | .254    | .288    | .301    |
| Price differential . . . . .          |       | .038                             | .047    | .068    | .054    | .063    | .031    | .046    | .017    | .054    | .068    | .001    |
| Beef, New York:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| No. 2 loins . . . . . W . . .         | Lb.   | .158                             | .183    | .170    | .200    | .180    | .190    | .190    | .275    | .235    | .260    | .310    |
| Sirloin steak . . . . . R . . .       | Lb.   | .259                             | .274    | .282    | .294    | .284    | .318    | .337    | .356    | .344    | .380    | .400    |
| Price differential . . . . .          |       | .101                             | .091    | .112    | .094    | .104    | .128    | .147    | .081    | .109    | .120    | .090    |
| Beef, New York:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| No. 2, round . . . . . W . . .        | Lb.   | .121                             | .135    | .135    | .145    | .130    | .170    | .175    | .190    | .180    | .200    | .230    |
| Round steak . . . . . R . . .         | Lb.   | .249                             | .270    | .271    | .289    | .275    | .315    | .337    | .360    | .352    | .384    | .406    |
| Price differential . . . . .          |       | .128                             | .135    | .136    | .144    | .145    | .145    | .162    | .170    | .172    | .184    | .176    |
| Beef, New York:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| No. 2, ribs . . . . . W . . .         | Lb.   | .151                             | .165    | .160    | .180    | .160    | .200    | .190    | .275    | .235    | .250    | .280    |
| Rib roast . . . . . R . . .           | Lb.   | .218                             | .225    | .227    | .243    | .238    | .270    | .279    | .298    | .294    | .324    | .351    |
| Price differential . . . . .          |       | .067                             | .060    | .067    | .063    | .078    | .070    | .089    | .023    | .059    | .074    | .071    |
| Pork, Chicago:                        |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Loins . . . . . W . . .               | Lb.   | .149                             | .165    | .150    | .165    | .165    | .240    | .250    | .330    | .270    | .290    | .265    |
| Chops . . . . . R . . .               | Lb.   | .190                             | .204    | .201    | .217    | .227    | .285    | .292    | .358    | .316    | .330    | .331    |
| Price differential . . . . .          |       | .041                             | .039    | .051    | .052    | .062    | .045    | .042    | .028    | .046    | .040    | .066    |
| Pork, New York:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Loins, western . . . . . W . . .      | Lb.   | .152                             | .163    | .153    | .165    | .170    | .235    | .235    | .300    | .265    | .275    | .290    |
| Chops . . . . . R . . .               | Lb.   | .217                             | .230    | .217    | .239    | .248    | .319    | .326    | .399    | .348    | .367    | .382    |
| Price differential . . . . .          |       | .065                             | .067    | .064    | .074    | .078    | .084    | .091    | .099    | .083    | .092    | .092    |
| Bacon, Chicago:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Short clear sides . . . . . W . . .   | Lb.   | .127                             | .139    | .113    | .159    | .158    | .218    | .247    | .318    | .301    | .275    | .264    |
| Sliced . . . . . R . . .              | Lb.   | .294                             | .318    | .315    | .328    | .316    | .395    | .439    | .475    | .498    | .519    | .533    |
| Price differential . . . . .          |       | .167                             | .179    | .202    | .169    | .158    | .177    | .192    | .157    | .197    | .244    | .269    |
| Ham, Chicago:                         |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Smoked . . . . . W . . .              | Lb.   | .166                             | .175    | .163    | .190    | .188    | .243    | .243    | .283    | .298    | .300    | .304    |
| Smoked, sliced . . . . . R . . .      | Lb.   | .266                             | .338    | .328    | .349    | .333    | .382    | .414    | .439    | .428    | .467    | .483    |
| Price differential . . . . .          |       | .100                             | .163    | .165    | .159    | .145    | .139    | .171    | .156    | .130    | .167    | .179    |
| Lard, New York:                       |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Prime, contract . . . . . W . . .     | Lb.   | .110                             | .104    | .080    | .133    | .159    | .215    | .201    | .246    | .246    | .263    | .247    |
| Pure tub . . . . . R . . .            | Lb.   | .160                             | .156    | .151    | .168    | .213    | .263    | .274    | .313    | .330    | .334    | .326    |
| Price differential . . . . .          |       | .050                             | .052    | .071    | .035    | .054    | .048    | .073    | .067    | .084    | .071    | .079    |
| Lamb, Chicago:                        |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Dressed, round . . . . . W . . .      | Lb.   | .140                             | .170    | .190    | .190    | .200    | .220    | .260    | .270    | .240    | .290    | .285    |
| Leg of yearling . . . . . R . . .     | Lb.   | .193                             | .219    | .208    | .231    | .232    | .263    | .287    | .314    | .306    | .356    | .350    |
| Price differential . . . . .          |       | .049                             | .049    | .018    | .041    | .032    | .043    | .027    | .044    | .066    | .066    | .065    |
| Poultry, New York:                    |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Dressed fowls . . . . . W . . .       | Lb.   | .182                             | .188    | .175    | .215    | .220    | .265    | .248    | .285    | .298    | .340    | .345    |
| Dressed hens . . . . . R . . .        | Lb.   | .214                             | .220    | .219    | .256    | .261    | .293    | .287    | .323    | .328    | .396    | .397    |
| Price differential . . . . .          |       | .032                             | .032    | .044    | .041    | .041    | .028    | .039    | .038    | .028    | .052    | .052    |
| Butter, Chicago:                      |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Creamery, extra . . . . . W . . .     | Lb.   | .310                             | .265    | .265    | .275    | .370    | .440    | .375    | .435    | .490    | .400    | .420    |
| Creamery, extra . . . . . R . . .     | Lb.   | .362                             | .312    | .322    | .335    | .438    | .484    | .432    | .487    | .544    | .460    | .475    |
| Price differential . . . . .          |       | .052                             | .047    | .057    | .060    | .068    | .044    | .057    | .052    | .054    | .060    | .055    |
| Butter, New York:                     |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Creamery, extra . . . . . W . . .     | Lb.   | .323                             | .280    | .270    | .285    | .395    | .450    | .395    | .443    | .510    | .415    | .464    |
| Creamery, extra . . . . . R . . .     | Lb.   | .382                             | .328    | .336    | .346    | .460    | .513    | .453    | .515    | .574    | .493    | .518    |
| Price differential . . . . .          |       | .059                             | .048    | .066    | .061    | .065    | .063    | .058    | .072    | .064    | .078    | .054    |
| Butter, San Francisco:                |       |                                  |         |         |         |         |         |         |         |         |         |         |
| Creamery, extra . . . . . W . . .     | Lb.   | .317                             | .245    | .265    | .255    | .355    | .390    | .385    | .460    | .530    | .375    | .405    |
| Creamery, extra . . . . . R . . .     | Lb.   | .388                             | .329    | .338    | .333    | .425    | .452    | .455    | .545    | .602    | .452    | .471    |
| Price differential . . . . .          |       | .071                             | .084    | .073    | .078    | .070    | .062    | .070    | .085    | .072    | .077    | .066    |

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

| Article and city.        | Unit.   | 1913:<br>Average<br>for<br>year. | July.   |         |         | 1917    |         |         |         | 1918    |         |         |
|--------------------------|---------|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                          |         |                                  | 1914    | 1915    | 1916    | Jan.    | Apr.    | July.   | Oct.    | Jan.    | Apr.    | May.    |
| Cheese, Chicago:         |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Whole milk.....          | W. Lb.  | \$0.142                          | \$0.133 | \$0.145 | \$0.145 | \$0.218 | \$0.223 | \$0.216 | \$0.246 | \$0.233 | \$0.215 | \$0.211 |
| Full cream.....          | R. Lb.  |                                  |         | .229    | .242    | .321    | .327    | .339    | .368    | .375    | .353    | .343    |
| Price differential.....  |         |                                  |         | .084    | .097    | .103    | .104    | .123    | .122    | .142    | .138    | .132    |
| Cheese, New York:        |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Whole milk, State.....   | W. Lb.  | .154                             | .144    | .146    | .151    | .220    | .245    | .238    | .255    | .230    | .225    | .223    |
| Full cream.....          | R. Lb.  |                                  |         | .229    | .228    | .301    | .335    | .328    | .340    | .344    | .338    | .338    |
| Price differential.....  |         |                                  |         | .083    | .077    | .081    | .090    | .090    | .085    | .114    | .113    | .115    |
| Cheese, San Francisco:   |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fancy.....               | W. Lb.  | .159                             | .125    | .115    | .135    | .180    | .215    | .200    | .220    | .255    | .260    | .210    |
| Full cream.....          | R. Lb.  |                                  |         | .209    | .229    | .242    | .297    | .297    | .316    | .335    | .335    | .313    |
| Price differential.....  |         |                                  |         | .085    | .094    | .062    | .082    | .097    | .096    | .080    | .075    | .103    |
| Milk, Chicago:           |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh.....               | W. Qt.  | .038                             | .036    | .037    | .036    | .045    | .054    | .047    | .074    | .070    | .058    | .046    |
| Fresh, bottled.....      | R. Qt.  | .080                             | .080    | .080    | .081    | .100    | .100    | .100    | .129    | .119    | .119    | .119    |
| Price differential.....  |         | .042                             | .044    | .043    | .045    | .055    | .046    | .053    | .055    | .049    | .061    | .073    |
| Milk, New York:          |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh.....               | W. Qt.  | .035                             | .030    | .030    | .031    | .051    | .049    | .050    | .072    | .081    | .059    | .058    |
| Fresh, bottled.....      | R. Qt.  | .090                             | .090    | .090    | .090    | .100    | .109    | .114    | .138    | .150    | .140    | .130    |
| Price differential.....  |         | .055                             | .060    | .060    | .059    | .049    | .060    | .064    | .066    | .069    | .081    | .072    |
| Milk, San Francisco:     |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh.....               | W. Qt.  | .039                             | .039    | .038    | .038    | .038    | .038    | .043    | .059    | .066    | .059    | .059    |
| Fresh, bottled.....      | R. Qt.  | .100                             | .100    | .100    | .100    | .100    | .100    | .100    | .121    | .121    | .121    | .121    |
| Price differential.....  |         | .061                             | .061    | .062    | .062    | .062    | .062    | .057    | .062    | .055    | .062    | .062    |
| Eggs, Chicago:           |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh, firsts.....       | W. Doz. | .226                             | .188    | .168    | .218    | .485    | .305    | .310    | .370    | .565    | .315    | .330    |
| Strictly fresh.....      | R. Doz. | .292                             | .261    | .248    | .296    | .525    | .376    | .406    | .469    | .651    | .380    | .396    |
| Price differential.....  |         | .066                             | .073    | .080    | .078    | .040    | .071    | .096    | .099    | .086    | .065    | .066    |
| Eggs, New York:          |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh, firsts.....       | W. Doz. | .249                             | .215    | .200    | .241    | .505    | .330    | .350    | .400    | .645    | .333    | .360    |
| Strictly fresh.....      | R. Doz. | .397                             | .353    | .328    | .372    | .667    | .424    | .477    | .627    | .808    | .476    | .480    |
| Price differential.....  |         | .148                             | .138    | .126    | .131    | .162    | .094    | .127    | .227    | .163    | .143    | .120    |
| Eggs, San Francisco:     |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fresh.....               | W. Doz. | .288                             | .230    | .220    | .240    | .380    | .280    | .320    | .435    | .610    | .365    | .375    |
| Strictly fresh.....      | R. Doz. | .373                             | .338    | .310    | .333    | .480    | .374    | .392    | .608    | .710    | .419    | .430    |
| Price differential.....  |         | .105                             | .108    | .090    | .093    | .100    | .094    | .072    | .173    | .100    | .054    | .055    |
| Meal, corn, Chicago:     |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Fine.....                | W. Lb.  | .014                             | .016    |         | .019    | .024    | .036    | .045    | .052    | .051    | .060    | .051    |
| Fine.....                | R. Lb.  | .029                             | .028    | .031    | .031    | .042    | .050    | .058    | .071    | .070    | .072    | .071    |
| Price differential.....  |         | .015                             | .012    |         | .012    | .018    | .014    | .013    | .019    | .019    | .012    | .020    |
| Beans, New York:         |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Medium, choice.....      | W. Lb.  | .040                             | .040    | .058    | .098    | .108    | .130    | .154    | .138    | .141    | .137    | .130    |
| Navy, white.....         | R. Lb.  |                                  |         | .081    | .113    | .149    | .162    | .188    | .185    | .185    | .182    | .179    |
| Price differential.....  |         |                                  |         | .023    | .015    | .041    | .032    | .034    | .047    | .044    | .045    | .049    |
| Potatoes, Chicago:       |         |                                  |         |         |         |         |         |         |         |         |         |         |
| White <sup>1</sup> ..... | W. Bu.  | .614                             | 1.450   | .400    | .975    | 1.750   | 2.800   | 2.625   | 1.135   | 1.185   | .645    | .675    |
| White.....               | R. Bu.  | .900                             | 1.640   | .700    | 1.356   | 2.370   | 3.455   | 2.975   | 1.660   | 1.680   | .998    | 1.083   |
| Price differential.....  |         | .286                             | .190    | .300    | .381    | .620    | .655    | .350    | .525    | .495    | .353    | .408    |
| Rice, New Orleans:       |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Head.....                | W. Lb.  | .050                             | .054    | .049    | .046    | .048    | .049    | .071    | .077    | .088    | .088    | .091    |
| Head.....                | R. Lb.  |                                  |         | .075    | .074    | .074    | .088    | .101    | .100    | .106    | .107    | .112    |
| Price differential.....  |         |                                  |         | .026    | .028    | .026    | .039    | .030    | .023    | .018    | .019    | .021    |
| Sugar, New York:         |         |                                  |         |         |         |         |         |         |         |         |         |         |
| Granulated.....          | W. Lb.  | .043                             | .042    | .059    | .075    | .066    | .081    | .074    | .082    | .073    | .073    | .073    |
| Granulated.....          | R. Lb.  | .049                             | .046    | .063    | .079    | .074    | .087    | .084    | .097    | .097    | .088    | .088    |
| Price differential.....  |         | .006                             | .004    | .004    | .004    | .008    | .006    | .010    | .015    | .024    | .015    | .015    |

<sup>1</sup> 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 1918 the retail prices of most of the commodities included in the exhibit have continued to fluctuate at a lower percentage level, as compared with their 1913 base, than have the wholesale prices. This is particularly true of pork, bacon, hams, lard, eggs, and corn meal. For corn meal, espec-

ially, there has been a much smaller percentage of increase in the retail than in the wholesale price.

While the percentage of increase in retail prices was less than that in wholesale prices for most of the articles, it should be noted that a comparison of the actual prices shown in the preceding table indicates that in the majority of cases the margin between the wholesale and the retail price in May, 1918, was considerably greater than in 1913. The following table shows, for example, that the wholesale price of bacon (short clear sides) increased 108 per cent between 1913 and May, 1918, while the retail price of sliced bacon increased only 81 per cent. The preceding table shows, however, that the difference between the wholesale price of the one and the retail price of the other was 16.7 cents per pound in 1913 and 26.9 cents per pound in May, 1918, or 10.2 cents more at the latter date than at the former. It is also seen that the wholesale price in May, 1918, had increased 13.7 cents over the 1913 price, while the retail price had increased 23.9 cents.

RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES, 1914 TO 1918, COMPARED WITH 1913.

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

| Article and city.              | 1913:<br>Average<br>for<br>year. | July. |      |      | 1917 |      |       |      | 1918 |      |      |
|--------------------------------|----------------------------------|-------|------|------|------|------|-------|------|------|------|------|
|                                |                                  | 1914  | 1915 | 1916 | Jan. | Apr. | July. | Oct. | Jan. | Apr. | May. |
| Beef, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Steer loin ends (hips).....W.. | 100                              | 104   | 95   | 122  | 119  | 119  | 113   | 140  | 119  | 137  | 167  |
| Sirloin steak.....R..          | 100                              | 112   | 111  | 121  | 114  | 126  | 130   | 132  | 130  | 145  | 153  |
| Beef, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Steer rounds, No. 2.....W..    | 100                              | 111   | 109  | 111  | 92   | 118  | 130   | 145  | 126  | 141  | 168  |
| Round steak.....R..            | 100                              | 115   | 113  | 119  | 112  | 127  | 132   | 135  | 135  | 151  | 158  |
| Beef, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Steer ribs, No. 2.....W..      | 100                              | 105   | 92   | 111  | 102  | 134  | 127   | 146  | 127  | 140  | 191  |
| Rib roast.....R..              | 100                              | 109   | 109  | 117  | 114  | 124  | 126   | 127  | 130  | 148  | 154  |
| Beef, New York:                |                                  |       |      |      |      |      |       |      |      |      |      |
| No. 2 loins, city.....W..      | 100                              | 116   | 108  | 127  | 114  | 120  | 120   | 174  | 149  | 165  | 196  |
| Sirloin steak.....R..          | 100                              | 105   | 109  | 114  | 110  | 123  | 130   | 137  | 133  | 147  | 154  |
| Beef, New York:                |                                  |       |      |      |      |      |       |      |      |      |      |
| No. 2 rounds, city.....W..     | 100                              | 112   | 112  | 120  | 107  | 140  | 145   | 157  | 149  | 165  | 190  |
| Round steak.....R..            | 100                              | 108   | 109  | 116  | 110  | 127  | 135   | 145  | 141  | 154  | 163  |
| Beef, New York:                |                                  |       |      |      |      |      |       |      |      |      |      |
| No. 2 ribs, city.....W..       | 100                              | 109   | 106  | 119  | 106  | 132  | 126   | 182  | 156  | 166  | 185  |
| Rib roast.....R..              | 100                              | 103   | 104  | 111  | 109  | 124  | 128   | 137  | 135  | 149  | 161  |
| Pork, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Loins.....W..                  | 100                              | 111   | 101  | 111  | 111  | 161  | 168   | 221  | 181  | 195  | 178  |
| Chops.....R..                  | 100                              | 107   | 106  | 114  | 119  | 150  | 154   | 188  | 166  | 174  | 174  |
| Pork, New York:                |                                  |       |      |      |      |      |       |      |      |      |      |
| Loins, western.....W..         | 100                              | 107   | 101  | 109  | 112  | 155  | 155   | 197  | 174  | 181  | 191  |
| Chops.....R..                  | 100                              | 106   | 100  | 110  | 114  | 147  | 150   | 184  | 160  | 169  | 176  |
| Bacon, Chicago:                |                                  |       |      |      |      |      |       |      |      |      |      |
| Short clear sides.....W..      | 100                              | 109   | 89   | 125  | 124  | 172  | 194   | 250  | 237  | 217  | 208  |
| Sliced.....R..                 | 100                              | 108   | 107  | 112  | 107  | 134  | 149   | 162  | 169  | 177  | 181  |
| Hams, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Smoked.....W..                 | 100                              | 105   | 98   | 114  | 113  | 146  | 146   | 170  | 180  | 181  | 183  |
| Smoked, sliced.....R..         | 100                              | 127   | 123  | 131  | 125  | 144  | 156   | 165  | 161  | 178  | 182  |
| Lard, New York:                |                                  |       |      |      |      |      |       |      |      |      |      |
| Prime, contract.....W..        | 100                              | 95    | 73   | 121  | 145  | 195  | 183   | 224  | 224  | 239  | 225  |
| Pure, tub.....R..              | 100                              | 98    | 94   | 105  | 133  | 164  | 171   | 196  | 206  | 209  | 204  |
| Lamb, Chicago:                 |                                  |       |      |      |      |      |       |      |      |      |      |
| Dressed, round.....W..         | 100                              | 114   | 128  | 128  | 134  | 148  | 174   | 181  | 161  | 195  | 191  |
| Leg of, yearling.....R..       | 100                              | 111   | 105  | 117  | 117  | 133  | 145   | 159  | 155  | 180  | 177  |
| Poultry, New York:             |                                  |       |      |      |      |      |       |      |      |      |      |
| Dressed fowls.....W..          | 100                              | 103   | 96   | 118  | 121  | 146  | 136   | 157  | 164  | 187  | 190  |
| Dressed hens.....R..           | 100                              | 103   | 102  | 120  | 122  | 137  | 134   | 151  | 152  | 181  | 186  |
| Butter, Chicago:               |                                  |       |      |      |      |      |       |      |      |      |      |
| Creamery, extra.....W..        | 100                              | 85    | 85   | 89   | 119  | 142  | 121   | 140  | 158  | 129  | 135  |
| Creamery, extra.....R..        | 100                              | 86    | 89   | 93   | 121  | 134  | 119   | 135  | 150  | 127  | 131  |

RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES, 1914 TO 1918, COMPARED WITH 1913—Concluded.

| Article and city.              | 1913:<br>Average<br>for<br>year. | July. |       |      | 1917 |      |       |      | 1918 |      |      |
|--------------------------------|----------------------------------|-------|-------|------|------|------|-------|------|------|------|------|
|                                |                                  | 1914  | 1915  | 1916 | Jan. | Apr. | July. | Oct. | Jan. | Apr. | May. |
| Butter, New York:              |                                  |       |       |      |      |      |       |      |      |      |      |
| Creamery, extra.....W..        | 100                              | 87    | 84    | 88   | 122  | 139  | 122   | 137  | 158  | 128  | 144  |
| Creamery, extra.....R..        | 100                              | 86    | 88    | 91   | 120  | 134  | 119   | 135  | 150  | 129  | 136  |
| Butter, San Francisco:         |                                  |       |       |      |      |      |       |      |      |      |      |
| Creamery, extra.....W..        | 100                              | 77    | 84    | 80   | 112  | 123  | 121   | 145  | 167  | 118  | 128  |
| Creamery, extra.....R..        | 100                              | 85    | 87    | 86   | 110  | 116  | 117   | 140  | 155  | 116  | 121  |
| Milk, Chicago:                 |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh.....W..                  | 100                              | 95    | 97    | 95   | 118  | 142  | 124   | 195  | 184  | 153  | 121  |
| Fresh, bottled, delivered..R.. | 100                              | 100   | 100   | 101  | 125  | 125  | 125   | 161  | 149  | 149  | 149  |
| Milk, New York:                |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh.....W..                  | 100                              | 86    | 86    | 89   | 146  | 140  | 143   | 206  | 231  | 169  | 166  |
| Fresh, bottled, delivered..R.. | 100                              | 100   | 100   | 100  | 111  | 121  | 127   | 153  | 167  | 156  | 144  |
| Milk, San Francisco:           |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh.....W..                  | 100                              | 100   | 97    | 97   | 97   | 97   | 110   | 151  | 169  | 151  | 151  |
| Fresh, bottled.....R..         | 100                              | 100   | 100   | 100  | 100  | 100  | 100   | 121  | 121  | 121  | 121  |
| Eggs, Chicago:                 |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh, firsts.....W..          | 100                              | 83    | 74    | 96   | 215  | 135  | 137   | 164  | 250  | 139  | 146  |
| Strictly fresh.....R..         | 100                              | 89    | 85    | 101  | 180  | 129  | 139   | 161  | 223  | 130  | 136  |
| Eggs, New York:                |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh, firsts.....W..          | 100                              | 86    | 80    | 97   | 203  | 133  | 141   | 161  | 259  | 134  | 145  |
| Strictly fresh.....R..         | 100                              | 89    | 82    | 94   | 168  | 107  | 120   | 158  | 204  | 120  | 121  |
| Eggs, San Francisco:           |                                  |       |       |      |      |      |       |      |      |      |      |
| Fresh.....W..                  | 100                              | 86    | 82    | 90   | 142  | 105  | 119   | 162  | 228  | 136  | 140  |
| Strictly fresh.....R..         | 100                              | 91    | 83    | 89   | 129  | 100  | 105   | 163  | 190  | 112  | 115  |
| Meal, corn, Chicago:           |                                  |       |       |      |      |      |       |      |      |      |      |
| Fine.....W..                   | 100                              | 114   | ..... | 136  | 171  | 257  | 321   | 371  | 364  | 429  | 364  |
| Fine.....R..                   | 100                              | 97    | 107   | 107  | 145  | 172  | 200   | 245  | 241  | 248  | 245  |
| Potatoes, Chicago:             |                                  |       |       |      |      |      |       |      |      |      |      |
| White, good to choice....W..   | 100                              | 236   | 65    | 159  | 285  | 456  | 428   | 185  | 193  | 105  | 110  |
| White.....R..                  | 100                              | 182   | 78    | 151  | 293  | 384  | 331   | 184  | 187  | 111  | 120  |
| Sugar, New York:               |                                  |       |       |      |      |      |       |      |      |      |      |
| Granulated.....W..             | 100                              | 98    | 137   | 174  | 153  | 188  | 172   | 191  | 170  | 170  | 170  |
| Granulated.....R..             | 100                              | 94    | 129   | 161  | 151  | 178  | 171   | 198  | 198  | 180  | 180  |

## COST OF FOOD AND FUEL IN THE STATE OF WASHINGTON.

The rapidly increasing cost of living since the beginning of the War and the effect of the entrance of the United States into the War on the diet of the people are exemplified in a report by the Bureau of Labor of the State of Washington<sup>1</sup> showing the estimated annual cost of foodstuffs and fuel in that State for a family of five persons, based on prices prevailing in April of each year. The prices shown for 1918 were secured from 40 retail dealers in as many cities and towns in the State.

The fact that the daily diet of the people since the United States entered the War includes many substitutes for foodstuffs which had been ordinarily in use has so affected the quantity of staple articles consumed that a comparison can hardly be made between itemized figures for 1918 and those of any other year. In the 1918 list of the bureau, food products, such as barley flour, oat flour, and hominy, are included which were not mentioned in previous reports. Other articles are either eliminated or merged with some other commodity. The sugar item has been reduced from 260 to 200 pounds,

<sup>1</sup> Comparative statistics on foodstuffs and fuel for five years, as shown in a budget of the annual cost of living of a family of five persons, based on prices prevailing in month of April of each year. April, 1918. Washington Bureau of Labor.

allowing the 2 pounds per month per person recommended by the Government and 80 pounds for canning. The 60 pounds deducted from this item, together with 10 pounds of comb honey, an article almost impossible to obtain, has been added to the sirup item, making it 10 gallons instead of the 3 gallons previously allowed. As to butter, the 80 pounds of creamery butter stands as in previous years, but 25 pounds of lard substitutes take the place of the 25 pounds of ranch butter, as the latter was intended for cooking purposes and is almost entirely off the market. Swiss cheese is not included in the list, American cheese being given the added weight.

The Food Administration requirement that wheat flour be sold to consumers on a 50-50 basis—i. e., that 50 pounds of substitutes be purchased with every 50 pounds of flour, but allowing, when double the weight of flour is bought in potatoes, one-fourth of the potatoes to be applied as a substitute—has been taken into consideration. In previous years there was allowed 686 pounds of flour and 141 pounds of foods classed as substitutes, or a total of 827 pounds. This year an allowance of 392 pounds of flour and 397 pounds of substitutes is made, which includes the potato allowance of 196 pounds, making the 50-50 basis. There is also an additional 204 pounds of potatoes, bringing the weight of flour and substitutes up to 993 pounds.

In considering the substitutes the estimate is kept down to the same actual needs which entered into the conservatively low estimate in previous years of the amount of food needed for a family of five. The high price of these substitutes, however, materially increases the cost of living.

The report shows that though the ratio of advance for the State was not so great from April, 1917, to April, 1918 (11.5 per cent), as from April, 1916, to April, 1917 (26.2 per cent), the cost of living still continues to advance and while there has been an upward trend of wages during the last year, so that at present the wages of the manual toiler more nearly approximate his needs than one year ago, it still remains true that the high cost of living presses heaviest on those who can afford it least, namely, the workers for a daily wage and the small-salaried men and women. The highest per cent of increase over the preceding year was in 1917 (26.2 per cent), while the prices of 1918 show an advance of 49 per cent over those of 1914.

The constant advance in cost of food and fuel since 1914 and the amount and percentage of increase are shown in the table following.



ANNUAL COST OF FOODSTUFFS AND FUEL FOR A FAMILY OF FIVE IN THE STATE OF WASHINGTON, 1914 TO 1918, AND AMOUNT AND PER CENT OF INCREASE OVER EACH PRECEDING YEAR AND OVER 1914.

| City or section of State.                                       | Year. | Amount.  | Increase over preceding year. |                  | Increase over 1914. |           |
|---|-------|----------|-------------------------------|------------------|---------------------|-----------|
|   |       |          | Amount.                       | Per cent.        | Amount.             | Per cent. |
| Seattle.....  | 1914  | \$418.46 |                               |                  |                     |           |
|   | 1915  | 443.72   | \$25.26                       | 6.0              |                     |           |
|   | 1916  | 461.42   | 17.70                         | 4.0              |                     |           |
|   | 1917  | 562.70   | 101.28                        | 22.0             |                     |           |
|   | 1918  | 658.37   | 95.67                         | 17.0             | \$239.91            | 57.1      |
| Tacoma.....   | 1914  | 431.57   |                               |                  |                     |           |
|   | 1915  | 434.22   | 2.65                          | .6               |                     |           |
|   | 1916  | 437.35   | 3.13                          | .7               |                     |           |
|   | 1917  | 571.42   | 134.07                        | 30.7             |                     |           |
|   | 1918  | 634.86   | 63.44                         | 11.1             | 203.29              | 47.1      |
| Spokane.....  | 1914  | 424.03   |                               |                  |                     |           |
|   | 1915  | 444.92   | 20.89                         | 4.9              |                     |           |
|   | 1916  | 463.50   | 18.58                         | 4.2              |                     |           |
|   | 1917  | 578.91   | 115.41                        | 24.9             |                     |           |
|   | 1918  | 639.01   | 60.10                         | 10.4             | 214.98              | 50.6      |
| Exclusive of Seattle, Tacoma, and Spokane:<br>Southwestern..... | 1914  | 405.93   |                               |                  |                     |           |
|   | 1915  | 424.80   | 18.87                         | 4.6              |                     |           |
|   | 1916  | 424.89   | .09                           | ( <sup>1</sup> ) |                     |           |
|   | 1917  | 534.09   | 109.20                        | 25.7             |                     |           |
|   | 1918  | 596.49   | 62.40                         | 11.7             | 190.56              | 46.6      |
| Northwestern.....   | 1914  | 416.82   |                               |                  |                     |           |
|   | 1915  | 418.19   | 1.37                          | .3               |                     |           |
|   | 1916  | 435.78   | 17.59                         | 4.2              |                     |           |
|   | 1917  | 560.45   | 124.67                        | 28.6             |                     |           |
|   | 1918  | 601.77   | 41.32                         | 7.4              | 184.95              | 44.3      |
| Eastern.....  | 1914  | 428.94   |                               |                  |                     |           |
|   | 1915  | 442.06   | 13.12                         | .3               |                     |           |
|   | 1916  | 453.55   | 11.49                         | 2.6              |                     |           |
|   | 1917  | 569.26   | 115.71                        | 25.5             |                     |           |
|   | 1918  | 632.32   | 63.06                         | 11.0             | 203.38              | 47.4      |
| Average for State.....  | 1914  | 420.96   |                               |                  |                     |           |
|   | 1915  | 434.65   | 13.69                         | 3.3              |                     |           |
|   | 1916  | 446.08   | 11.43                         | 2.6              |                     |           |
|   | 1917  | 562.80   | 116.72                        | 26.2             |                     |           |
|   | 1918  | 627.13   | 64.33                         | 11.5             | 206.17              | 49.6      |

<sup>1</sup> Less than one-tenth of 1 per cent.

#### COST OF LIVING AND WAGES IN THE NETHERLANDS.<sup>1</sup>

It appears from the annual report of the American consulate at Amsterdam for the year 1917, dated March 11, 1918,<sup>2</sup> that the rise in the cost of living in the Netherlands was greater in that year than in either 1915 or 1916, the prices of some articles advancing from 100 to 200 or 300 per cent. Other articles advanced but little, while some disappeared entirely from the markets with no expectation that they will reappear until after the War. It is estimated that the average increase in the cost of living in 1917 over the cost in 1916 was 50 per cent, bringing the increase over peace prices to at least 100 per cent. Various important articles, as for example shoes and nearly all clothing, it is stated, advanced much more than this. Concerning the increase in the cost of foods, the report makes the following statement:

Of foods, the increased prices are variable. Imported fruits have disappeared from the markets—oranges, bananas, etc. Occasionally a lemon may be bought, but the

<sup>1</sup> Cf. MONTHLY REVIEW for September, 1917, page 123.

<sup>2</sup> Data furnished by the State Department.



price is nearly a dollar—50 times the price a year ago. Altogether, leaving out such extremes as lemons, prices of food advanced fully 50 per cent in 1917 and at least 100 per cent compared with peace times. Sugar is one article which had practically the same price as before the War. Its retail price then and in 1917 was from 10 to 12 cents a pound. The evident reason is that Holland has produced in recent years nearly twice as much beet sugar as it consumed.

This large increase in living cost, however, was not met by a corresponding increase in wages, according to the consulate's report. The average advance in wages is estimated at 20 to 25 per cent, while in some large establishments employing hundreds or thousands of workers, no increases were granted, although, it is stated, a "toeslag" (special allowance) was made on account of the increase in the cost of living. This expedient was adopted to avoid the difficult proceeding of reducing wages upon the return of normal times.

Data as to unemployment show that at the end of 1917 about 11 per cent of the total number of workmen reported upon were out of work. Excluding the diamond workers, of whom about 30 per cent were unemployed, the per cent of unemployment was 9.1, or about the same as at the end of 1915, but considerably more than at the end of 1916.

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#### COST OF LIVING AND WAGES IN RUSSIA.

A Russian correspondent of the *Correspondenzblatt* writes concerning conditions as to wages and cost of living in Russia as follows:<sup>1</sup>

Statistics of wages and food prices recently published in the Moscow social-democratic paper *Wperjod* shed some light on these conditions. Conditions in Moscow are more characteristic in this respect than those in any other Russian city. The data quoted by this paper were obtained from statistics compiled by the Moscow Labor Exchange and by the Central Arbitration Board in the Moscow branch office of the Ministry of Labor. According to a table reproduced in this paper the wage fluctuations at the outbreak of the War, i. e., during July, 1914, and during July, 1916, and August, 1917, were as follows:

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<sup>1</sup> Lohnsteigerungen und Lebensmittelpreise, by A. Grigorjanz. *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*. Vol. 28, No. 2. Berlin, Jan. 12, 1918.

DAILY WAGE RATES OF WORKMEN IN RUSSIA, JULY, 1914 AND 1916, AND AUGUST, 1917.

| Occupation.                       | July, 1914.                     | July, 1916.                     | August, 1917.               |
|-----------------------------------|---------------------------------|---------------------------------|-----------------------------|
|                                   | <i>Rubles.</i> <sup>1</sup>     | <i>Rubles.</i> <sup>1</sup>     | <i>Rubles.</i> <sup>1</sup> |
| Carpenters and cabinetmakers..... | 1.60 to 2.00 (\$0.82 to \$1.03) | 4.00 to 6.00 (\$2.06 to \$3.09) | 8.50 (\$4.38)               |
| Pick and shovel men.....          | 1.30 to 1.50 (\$0.67 to \$0.77) | 3.00 to 3.50 (\$1.55 to \$1.80) | 8.00 (\$4.12)               |
| Bricklayers.....                  | 1.70 to 2.35 (\$0.88 to \$1.18) | 4.00 to 6.00 (\$2.06 to \$3.09) | 8.00 (\$4.12)               |
| Painters.....                     | 1.80 to 2.20 (\$0.93 to \$1.13) | 3.00 to 5.50 (\$1.55 to \$2.83) | 8.50 (\$4.38)               |
| Blacksmiths.....                  | 1.00 to 2.25 (\$0.52 to \$1.16) | 4.00 to 5.00 (\$2.06 to \$2.58) | 7.50 (\$3.86)               |
| Potters.....                      | 1.50 to 2.00 (\$0.77 to \$1.03) | 3.50 to 6.00 (\$1.80 to \$3.09) | 9.00 (\$4.64)               |
| Machinists.....                   | .90 to 2.00 (\$0.46 to \$1.03)  | 2.50 to 4.50 (\$1.29 to \$2.32) | 8.00 (\$4.12)               |
| Unskilled laborers.....           | 1.00 to 1.50 (\$0.52 to \$0.77) |                                 |                             |

<sup>1</sup> Conversions are based on 1 ruble = \$0.515, the prewar value.

On an average, wages in the occupations included in the preceding table increased during the three-year period by 515 per cent. During the same period, however, the average increase of the prices of the principal foodstuffs amounted to 566 per cent. Consequently the workmen of Moscow in August, 1917, had greater difficulty in meeting the cost of living with their greatly increased wages than they had in July, 1914, with their lower wages.

The increases in the prices of the principal foodstuffs in August, 1917, as compared with the prices ruling in August, 1914, based on price statistics compiled by the Moscow municipal statistical office, are shown in the following table:

RETAIL PRICES OF PRINCIPAL FOODSTUFFS IN MOSCOW, AUGUST, 1914 AND 1917.

| Article.         | Quantity.                         | Retail price.               |                             | Per cent of increase in August, 1917, over August, 1914. |
|------------------|-----------------------------------|-----------------------------|-----------------------------|--|
|                  |                                   | August, 1914.               | August, 1917.               |  |
|                  |                                   | <i>Kopeks.</i> <sup>2</sup> | <i>Kopeks.</i> <sup>2</sup> |  |
| Rye bread.....   | Per Russian pound <sup>1</sup> .. | 2½ (\$0.013)                | 12 (\$0.062)                | 380  |
| White bread..... | do.....                           | 5 (\$0.026)                 | 20 (\$0.103)                | 300  |
| Beef.....        | do.....                           | 22 (\$0.113)                | 110 (\$0.567)               | 400  |
| Veal.....        | do.....                           | 26 (\$0.134)                | 215 (\$1.107)               | 727  |
| Pork.....        | do.....                           | 23 (\$0.118)                | 209 (\$1.030)               | 770  |
| Herrings.....    | Each.....                         | 6 (\$0.031)                 | 52 (\$0.268)                | 767  |
| Cheese.....      | Per Russian pound.....            | 40 (\$0.206)                | 350 (\$1.803)               | 775  |
| Butter.....      | do.....                           | 48 (\$0.247)                | 320 (\$1.648)               | 567  |
| Eggs.....        | Per 10 eggs.....                  | 30 (\$0.155)                | 160 (\$0.824)               | 433  |
| Milk.....        | Per bottle.....                   | 7 (\$0.036)                 | 40 (\$0.206)                | 471  |

<sup>1</sup> 1 Russian pound = 0.90282 pound.<sup>2</sup> Conversions are based on 1 ruble (100 kopeks) = \$0.515, the prewar value.

An investigation of food prices made in Petrograd in the spring of 1917, with the object of establishing their effect upon the cost of living, showed also large increases as compared with the results of a similar investigation made in March, 1914. Based on this investigation the paper Nowaja Shisnj gives the following data as to the average expenditures of a metal worker of the large Baltic works in Petrograd. While in March, 1914, this workman expended 14 per cent of his total household budget for housing, heat, and light, in the spring

of 1917 his expenditures for these purposes had decreased to 8 per cent. For clothing he expended in both years 12 per cent. His expenditures for amusements, physician, medicines, etc., fell from 14 per cent in 1914 to 8 per cent in 1917. The expenditures for food, on the other hand, rose from 60 to 72 per cent. He was forced to economize in all other expenditures in order to satisfy his needs as to nutrition, which required nearly two-thirds of his total expenditures.

Manufactured products also increased in price. According to statistics of the economic department of the Moscow Labor Council the prices of a number of manufactured products increased during the first three years of the War as follows: Cotton prints 1,173 per cent, cotton cloth 1,233 per cent, woolen cloth 1,900 per cent, men's shoes 1,700 per cent, men's suits 900 per cent, and small metal articles 1,900 per cent.

# FOOD CONTROL.

## FOOD CONTROL IN GREAT BRITAIN.<sup>1</sup>

Developments in the control of the food situation in Great Britain<sup>2</sup> since the fall of 1917 embrace a comprehensive food economy campaign, the fixing of wholesale and retail prices on many articles of food not already controlled, the extensive control of distribution of supplies, and the establishment of local rationing schemes.

In December, 1917, a consumer's council was established by Lord Rhondda in connection with the Ministry of Food. This council is composed of representatives of the organized working classes and of women. The duties of the council are to gather first-hand information as to what is being done, to guard the interests and rights of the consumers they represent, and to act in an advisory capacity to the Ministry of Food.

Under the Defense of the Realm Act some of the important powers delegated to the food controller are the right to fix prices; to requisition supplies of any kind in order to secure their proper distribution; and to place any restrictions he considers necessary upon the manufacture or the use of any article of food and upon the slaughtering and feeding of live stock. The export and import of food-stuffs are under his jurisdiction, and he also has the power, and may delegate it to any food committee, to enforce the orders and to prosecute offenses.

### FOOD ECONOMY CAMPAIGN.

An appeal for voluntary rationing of bread, meat, and sugar according to a specified scale was made in February, 1917. This appeal, with slight variations in the scale, has been constantly repeated up to the present time. In September, 1917, Sir Arthur Yapp was appointed as director of food economy, this work having been done previously under the direction of the War Savings Committee. The continually lessening food resources of the world resulting from the vast withdrawal of labor from productive industries, and the fact that lowered prices have a tendency to increase consumption, brought about a realization of the necessity for such an

<sup>1</sup> For previous articles on food control in Great Britain see MONTHLY REVIEW, March, 1917, pp. 392-407; June, 1917, pp. 928-945; July, 1917, pp. 69-78; November, 1917, pp. 91-104; "Retail prices of food in the United Kingdom," 1914-1917, MONTHLY REVIEW, February, 1918, pp. 111, 112; and "Communal kitchens in European countries," MONTHLY REVIEW, June, 1918, pp. 58-63.

<sup>2</sup> Information for this article was compiled from numbers of the National Food Journal (England) covering the period from Sept. 26, 1917, to May 22, 1918.

officer. The purpose in creating this position was to meet the needs not only of the present situation but also of situations which may arise after the War.

In order to make it in reality an economy campaign no vast organization of paid officials was built up, but all possible existing agencies, such as churches, universities and schools, corporations, women's societies and similar organizations, and the press are used to further the propaganda. The campaign is based upon exact knowledge of food conditions, so that any statements emanating from this department may be accepted as the whole truth. Local food economy committees were appointed by and work in cooperation with the food control committees which were put in operation in August, 1917.

Exhibitions, cooking classes, and demonstrations by teachers of domestic economy have been held under the auspices of local education authorities throughout Great Britain. The subjects dealt with are war-time cooking, food production, food preservation, waste utilization, etc. More than 1,200 food economy committees have been formed and work under the direction of 10 assistant commissioners.

So far as economy in the consumption of foodstuffs legitimately purchased is concerned nothing can be done beyond appeals to patriotism and good feeling; but where the ordinances of the ministry are concerned effective action can be and is taken. The food hoarding order of April, 1917, made systematic prosecution of selfish and unpatriotic citizens possible, and heavy fines have also been systematically imposed on dealers convicted of profiteering through evasions of food orders.

The waste of foodstuffs order which went into effect in February, 1918, applies equally to the individual and to the trader who has the handling of food in any form. It is an offense to waste any food fit for human use. It is wasted if willfully or negligently damaged or thrown away, if reasonable precautions are not taken for its preservation, if anyone procures a greater quantity than is required and any part becomes unfit for use, or if anyone unreasonably retains it until it spoils. The tradesman is protected by a clause which exonerates him if it can be shown due care has been taken, that he has been willing to sell at reasonable prices, and that he could not have made the stock available otherwise than by way of sale in his business. Farmers must take care of their produce and guard it from depredations by rats, etc. Although as yet no well-defined plan of campaign has been worked out in regard to the losses by rats, agriculturists and others are nevertheless held responsible for such losses, and heavy fines have recently been imposed on those shown to have been negligent in this respect.

## METHODS OF SECURING SUPPLIES FROM OTHER COUNTRIES.

A statement by Lord Rhondda in September, 1917, to the representatives in London of the American, Canadian and Australian newspapers, was to the effect that in the ensuing 12 months the minimum requirements in cereals, hog products, sugar, and meat from the United States and Canada would be over 10,000,000 tons, representing a money value of between three and four million dollars a day. In view of this fact closer cooperation was necessary and in order to eliminate competitive buying among the Allies, which inevitably tended to raise prices, an interally council on war purchases and finance was formed. The existence of this body enables the food requirements of France, Italy, and the United Kingdom, and the finance and tonnage therefor, to be presented in coordinated and agreed form to the principal source of supplies and finance, namely, the United States.

About 65 per cent of the essential food supplies come, and must continue to come, from the North American Continent. Without a system of centralized allied purchasing it would have been quite hopeless to attempt to control either price or distribution.

What may be termed the "overhead" machinery of supply hinges mainly upon interallied or partially interallied bodies, viz., the wheat executive, the sugar commission, and the meat and fats executive, to which it is proposed to add the oil and seed executive. All these bodies have their headquarters in London.

The interallied meat and fats executive collects information as to the monthly requirements of the three allied countries. This committee, consisting of one British, one French, and one Italian representative, meets in London, and the purchases which they decide upon are made by the allied provisions export commission in New York consisting of members from the three countries named. This latter body is the sole agency through which foodstuffs, except cereals and sugar, are purchased in America. If the United States Food Administration sanctions the purchase proposals the commission arranges the details, except in the case of fresh meat and packing-house products where the statement of requirements is passed on to the division of coordination of purchases, an American body, which allots the orders among the packing houses. After allotments are made to the packers the quantities determined on are tendered to each ally through the division of coordination of purchases.

The interallied oil and seed executive will also purchase through these channels.

In the case of the wheat executive, the purchasing body in the United States is the Wheat Export Co. in New York. A similar body has been established in Canada.



At Mr. Hoover's suggestion in September, 1917, an international sugar committee was established in New York to centralize the purchase and allocation of Cuban and American sugars. The royal sugar commission sent two delegates to represent them on the committee and thus the coordination of allied purchases was effectively completed.

By means of these various purchasing agencies competition among these three great nations and conflicting demands from different departments within one country are avoided and the machinery, though apparently cumbersome, has worked simply and well.

#### CONTROL OF SUPPLIES AND PRICES.

##### MEAT.

Since effective control of the prices of any commodity can not be secured over a long period without the power to control supplies, it was clear that the fixing of maximum wholesale prices for meat must be followed by the control of live stock. Great Britain was divided into 19 areas for this purpose and in each of these sections a live stock commissioner was appointed with comprehensive powers for the regulation of the slaughter and sale of all live stock within his area. As an essential preliminary to the work of controlling supplies a census of the cattle, sheep, and pigs in each area was taken.

The territorial divisions correspond in most cases with the food control areas already established and the local food committees under the supervision of the food controller are responsible for retail distribution.

In the fall of 1917 the necessity was recognized for assuming complete control of meat, not only because of high retail prices, but also because of a radical change in the general situation, of which the high prices were a symptom. Before the War 40 per cent of the meat supplies were received from colonial and foreign markets, but during the War the imports had been set aside mainly for the use of the army, the civilian population being fed on the higher priced home-grown meats.

The enormous demand, however, on tonnage for transport services and the decrease of the world's shipping, due to U-boat operations, made it necessary to draw on home-grown supplies for the feeding of the army.

The ministry adopted a plan calculated to allow a reasonable profit to the producer, the middleman, and the retailer. It was decided to control prices by fixing maximum prices for dressed meat, these prices to be based on the maximum live-weight prices used in buying cattle for the army. In order to compensate farmers who had, during the preceding spring, bought cattle for fattening at the then inflated prices, the prices were fixed on a descending scale,

beginning at 74s. (\$18) per hundredweight in September, 1917, and ending after July 1, 1918, with 60s. (\$14.60). A comparison with prewar prices shows that from 105 to 85 per cent over the prewar price was allowed in the autumn and that 63 per cent will be allowed in July. Simultaneously the ministry took steps to reduce the cost of feeding cakes for cattle, this reduction ranging from £1 to £4 (\$4.87 to \$19.47) per ton, so as to further insure a margin of profit to the farmer.

All retail meat dealers and keepers of slaughterhouses are required to register, and live stock auctioneers and cattle dealers must be licensed. Retailers are not allowed in any week to buy in excess of the amount allowed them by the controller and must keep such records as are necessary to show whether or not the conditions of the order are being complied with.

#### POTATOES.

The potatoes order, 1917, guaranteed to the growers a minimum price of £6 (\$29.20) a ton on and after September 15. It also provided for control of the potato trade at all stages by fixing a grower's maximum price of £6 10s. (\$31.63) per ton, by limiting the profits of wholesalers and fixing a scale of maximum retail prices, and by requiring all dealers, both wholesale and retail, to be registered. After October 1, 1917, on all except seed potatoes, the profits (including overhead charges) of a wholesale dealer could not exceed 7s. 6d. (\$1.83) per ton, and the maximum price at which a retailer might sell was fixed in relation to his buying price, but could not exceed 1½d. (2½ cents) per pound. Potatoes had to be sold by weight and an additional charge was permitted the retailer on potatoes delivered to customers.

On November 19, owing to the abundant crop of potatoes as the result of the Government guaranty, the grower's maximum price of £6 (\$29.20) a ton was abolished. It was hoped that the reduced price to growers would result in a lowered price to the public and in an increased consumption of potatoes, as well as a corresponding diminution in the use of some other foodstuffs. The Government guaranty was met by paying to the grower a sum representing the difference between the £6 (\$29.20) and the price per ton at which he sold. This payment of difference constituted a charge on the exchequer, but was offset by the gain to the consumer.

In January, 1918, steps were taken by the food controller to secure the largest possible acreage of potatoes for the coming year. Contracts which the Ministry of Food were prepared to enter into with farmers were for approved varieties of potatoes to be delivered at stated periods beginning November 1, 1918. Preliminary returns received in May indicate that the potato acreage of 1918 will exceed

that of 1917 by about 25 per cent. When allotments and cottage gardens, which are not included in the tabulation, are taken into account, it appears that the total area will approximate 900,000 acres, and as there are still plenty of seed potatoes available it is expected that a final effort will bring the country close to the million acres for which the Prime Minister appealed. One remarkable feature of the returns is that every county in England, Wales, and Scotland shows an increase over the 1917 acreage.

#### SUGAR.

After October 1, 1917, only those retailers who applied for registration were allowed to sell sugar. Each applicant had to file a return showing the stock on hand, including that allotted to him by his supplier, but not yet received, and the average weekly supplies due him for the next three months. Certain days were fixed for the receipt of applications from retailers, caterers, institutions, manufacturers, and the public, and five different series of posters of reminder were printed. Considerable confusion arose because of the carelessness or ignorance of householders in filling out the cards. As evidence of the magnitude of the scheme it is stated there were more than 56,000,000 separate printed documents or articles circulated by the Ministry of Food. Persons wishing to buy sugar for fruit preserving for their own households must have a permit issued by the food controller. The sugar must not be disposed of, but must be used for the purpose for which it is bought and retailers must keep records of persons to whom such sugar is sold. On January 1, 1918, the weekly sugar ration was fixed at one-half pound per person.

#### BREAD AND FLOUR.

Up to the present time there has been no compulsory rationing of bread and it is hoped this will not become necessary. It is, however, an offense to sell bread which is not at least 12 hours old. Several orders have been issued relative to the use of potatoes or potato flour by bread manufacturers. The proportion allowed at first was 1 pound of potatoes to 7 pounds of flour, but that restriction was subsequently removed and now the maker may use such quantity of potatoes as he sees fit. In order to encourage bakers to use potatoes special rates approximating the price of flour have been made.

Imported flour may not be sold at retail except when mixed with flour milled in the United Kingdom and the percentage of imported flour so used must not exceed 25 per cent.

The wheat acreage of Great Britain for 1918 has been increased 40 per cent over that of 1917 but this increase will affect but slightly the amount which the United States and Canada will be required to furnish.

## MILK.

The prices of milk, both wholesale and retail, have been fixed in several orders. All wholesale dealers must be registered and records of sales must be kept, and all retailers, except those selling less than 5 gallons daily, must register. In December, 1917, an order was issued forbidding the use or sale of cream except for making butter or such other purposes as the food controller might authorize. A later order prohibited the use of coloring matter or the addition of water to milk or cream for sale.

The making of cheese rather than butter from excess milk has been encouraged since cheese preserves more of the valuable elements of the milk.

The use of milk, milk powder, condensed milk, or dried milk in the making of chocolate was prohibited after the 24th of December, 1917.

In January, 1918, supplies of full cream dried milk, which had been bought some months earlier by the Ministry of Food, in anticipation of the shortage of fresh milk, were put at the disposal of health officers and secretaries of infant welfare centers at cost price. Priority schemes for the supplying of milk to children under 5 years of age and to persons holding a medical certificate showing that reasons of health entitle them to a daily allowance of milk are in force in different localities.

## BUTTER, OILS, AND FATS.

In the latter part of November, 1917, the scheme for the allocation of the restricted supplies of butter was put in operation. It was based on the general principle that retailers should receive quantities bearing roughly the same proportion to their 1916 supplies that the total imports at that time were to those of 1916.

The control of seeds, nuts, kernels, oils, and fats was originally undertaken by the Ministry of Munitions in order to secure at a reasonable price a sufficient supply of glycerin for the manufacture of explosives. It soon became clear, however, that the control of such commodities was also important from the food point of view since the enormous consumption for war purposes has created a shortage of all kinds of oils and fats used in the making of margarine. Farmers, too, in recent years depend in great degree upon oilseed cakes for fattening cattle.

In view of these facts, the control was transferred, in July, 1917, to the Ministry of Food. At this time the distribution of fat and oil-yielding materials was already largely controlled. The main objects of the oils and fats department of the Ministry of Food have been (1) to control the supply of raw material, (2) to provide an ample amount of glycerin, (3) to provide and distribute edible oils and fats for purposes of margarine manufacture, (4) to maintain the production of soap, and (5) to regulate supplies and prices of cattle food.

The ministry has adopted the plan, in this as in other departments, of calling to its aid experts in the various branches of the trade. As a result of governmental control, in July, 1917, glycerin sold in the United Kingdom at £59 10s. (\$289.56) per ton while it stood as high as £225 (\$1,094.96) in other countries. In order to maintain supplies of raw material it was thought necessary to set up the joint Anglo-French oil seed executive to control supplies and purchases in British and French colonial possessions.

Margarine had been largely imported from Holland and the Dutch had had the advantage of the by-products from the various processes, so efforts were made to extend the refining and margarine factories in Great Britain in order to reduce the dependence on the Dutch product.

In spite of all the means taken to reduce prices and make a fair distribution of oil cake, on which the dairying and cattle-fattening industries depend, there was a scarcity which made it necessary to prepare a cattle-rationing scheme in which preference was given to dairy herds.

*Conservation of fats.*—The conservation of waste fats is a very important war saving. The systematic collection of army fat was begun in 1916. Drippings, cracklings, fat from the men's plates, fat from washing-up water, and bones are saved and handed over. Special arrangements had to be made in each camp under which the bones and the different kinds of fat could be kept separate for collection. The primary aim of the committee having charge of this work is to maintain the supply of glycerin for explosives, but incidentally the collection of waste increases the supply of soap, of fodder for pigs and chickens, and of other useful products.

The achievements of this committee in putting an end to the waste which occurred at the beginning of the War are as follows:

From waste fats collected from army camps alone have been produced—

(1) Tallow sufficient to provide soap for the entire needs of the army, navy, and Government departments, with a surplus for public use, producing an actual annual revenue of £960,000 (\$4,671,840) as well as saving valuable tonnage;

(2) One thousand eight hundred tons of glycerin for ammunition—sufficient to provide the propellant for 18,000,000 18-pound shell—at a saving of several million dollars.

Grease traps for the recovery of fat from the waste water in kitchen sinks are installed in many large institutions and hotels, but the most important of civilian economies is the extraction of fat from bones.

An order issued in March, 1918, in regard to edible oils and fats prohibits their use for any purpose except that of human or animal food or drink and it is also an offense to treat any of these materials in such a way as to make them unfit or less fit for human consumption.



## TEA.

In October, 1917, a temporary scheme of control of tea was put into effect as the imports from July to October, inclusive, had amounted to but slightly more than one-third of the normal consumption. Under this scheme tea is divided, on arrival, into four grades varying in price from 2s. 4d. (57 cents) to 4s. (97 cents) per pound. Before the issuing of the tea (provisional prices) order, the control scheme operated by agreement; but the order contained a clause making the retail prices statutory so that sales at prices exceeding them, or other evasions of the scheme, are now summary offenses against the Defense of the Realm Act. An order dated May 4, 1918, fixes the retail price for every grade of tea at 2s. 8d. (65 cents) per pound.

Customers must now register with retailers in order to secure their tea supplies and each retailer is rationed on the basis of 1½ ounces per week for each member of the families of his customers.

## MISCELLANEOUS ORDERS.

Other orders of consequence have been those requisitioning imported and domestic cheese and canned condensed milk; requiring the registration of dealers in sweetmeats and fixing retail prices; authorizing local committees to establish and maintain kitchens and such distributing depots as may be necessary; permitting householders to buy eggs for preserving for the use of their families; fixing wholesale and retail prices on the principal articles of food and on cattle feeding stuffs; and requiring the licensing and registration of wholesale and retail dealers.

## RETAIL PRICE FIXING.

One of the difficulties in fixing general maximum retail prices is the fact that it is impossible for retail prices to be uniform over the whole country without giving undue profit to traders in certain areas. Because of this it has been necessary for the Ministry of Food to allow considerable latitude to local food committees in fixing the charges permitted to retailers. The essential point is that the rate of profit should as nearly as possible be constant, and that such variations as exist should be based on local conditions and local standards of living. In the case of milk this requirement has been met by fixing a general maximum producers' price, and as a result the producer has no interest in diverting his milk from local centers to the great cities.

Since the danger in price fixing for any commodity is that the supply may cease unless the entire supply is controlled the Ministry of Food exercises its control from the field of production to the shop counter, limiting intermediate charges to a fair remuneration for services rendered. In this way profiteering has been reduced to a minimum.



## RATIONING BY CONTROL COMMITTEES.

The first direct attempt at rationing was made in the order, issued on December 5, 1916, regulating meals in hotels and restaurants. In the first part of January, 1918, the Ministry of Food issued to all local control committees a memorandum for their guidance in schemes of rationing. With the consent of the food controller any food committee may adopt any practicable scheme for controlling within its area the distribution and consumption of any article of food.

The essential features of any scheme for preventing queues, caused by difficulty in obtaining a particular foodstuff, are:

(a) That every customer should be registered with one shop for that foodstuff and not allowed to buy it elsewhere.

(b) That the shopkeeper should be required to divide his weekly supplies in fair proportion among all the customers registered.

(c) That no shopkeeper should be allowed to register more customers than he can conveniently serve.

Lord Rhondda issued an order empowering local food control committees to put these measures in force and leaving each committee wide discretion in framing and administering a scheme suitable to the needs of its district. In January, 1918, arrangements were completed for rationing the residents of London and the home counties (6 counties) for butter and margarine, the weekly allowance of margarine being 4 ounces as against the voluntary ration of 10 ounces for all fats. Individual food cards were used, those for children being of a different color from those for the rest of the population.

In February the meat ration in the same district was fixed by price for butcher's meat and by weight for other meats (bacon, ham, poultry, game, rabbits, and preserved and prepared meats). The weights of these are fixed so as to correspond substantially with 5 ounces of uncooked butcher's meat with average bone. The weekly ration is 1s. 3d. (30 cents) worth of butcher's meat, or about 15 ounces, which uses three of the four coupons on the meat card, the fourth being used for other meat (varying amounts being obtainable according to the kind purchased). The rationing of meat was extended throughout Great Britain the first week in April.

An order allowing a supplementary ration to persons engaged in heavy work went into effect on April 14. This affects from six to seven million persons. Since May 5 supplementary rations have been allowed to boys over 13 and under 18 years of age who are engaged on heavy work. This ration is 5 ounces of bacon with bone or its equivalent in other meat than butcher's meat. The age at which children are allowed full rations has been reduced from 10 to 6 years.

The public meals order issued the last of January, 1918, provided that:

(1) No place of refreshment open to the general public shall serve meat, poultry, or game on any of the days prescribed as meatless days, these prescribed days being such as the food controller may appoint from time to time.

(2) No milk shall be served or consumed as, or as part of, a beverage except with tea, coffee, cocoa, or chocolate as usually served, although this provision does not apply to children under 10 years of age.

(3) No sugar may be used in a public eating place except that which is used for cooking, or which may be supplied by a patron himself, unless a person resides for the major portion of a week in any inn, hotel, club, or boarding house, in which case the total amount supplied to such a person in any week shall not exceed 6 ounces. The total of such amounts supplied must be entered in the register and an accurate record kept of full names and addresses of all persons to whom sugar is so supplied.

(4) The total quantities of meat, flour, bread, sugar, butter, margarine, and other fats used in or by any public eating place in any week shall not exceed the gross quantities allowed for the meals served during the week, and those in charge of any public eating place shall be responsible for seeing that the total quantities permitted shall not be exceeded and for this purpose shall keep a register, in the form prescribed by the food controller, containing an authentic record of meals and quantities served.

Compulsory meatless days in eating places, subject to the public meals order, were abolished in Great Britain as from May 17.

Rationing up to the present time has been carried out by the local food control committees, but it is the food controller's intention to introduce a national system as from July 13, 1918, the date on which the currency of the present meat cards ends. Under the proposed scheme the rationing of sugar, fats, and meat will be arranged on a substantially uniform basis. As a preliminary step toward the issue of ration cards another registration of the population is being made.

At this time the foods rationed are meats, butter, margarine, and sugar; tea is rationed under local schemes covering about half the total population of the country and may be included in the general rationing order.

FOOD CONTROL IN FRANCE.<sup>1</sup>

On January 1, 1918, a new system for the control of the cereal supply came into operation in France. This system was worked out by M. Victor Boret, the new minister of agriculture and food supplies, and was embodied in a decree of November 30, 1917.

In answer to questions raised in the Senate in regard to the legality of the decree concerning the rationing of bread, M. Boret, in the first week of December, 1917, gave a detailed account of the condition of the food supply, in which he emphasized the deficit of cereals, sugar, and fertilizers, the increasing difficulties of import, and the need of increased production, of restricted consumption, and of the control of available supplies. He stated that if the national consumption of cereals was to continue on the same basis as then existed, 52,000,000 quintals (5,731,960 tons) of food cereals would be required between December 1, 1917, and August 31, 1918. The existing supply of wheat was then only 15,331,000 quintals (1,689,966.13 tons); the deficit of 36,000,000 quintals (3,968,280 tons) therefore remained to be imported. As it would be impossible to import about 4,800,000 quintals (529,104 tons) a month on account of insufficient tonnage, no course seemed left except restriction of the consumption of cereals.

This statement gathered force from a statement of M. Boret's predecessor, the former minister of supplies, M. Maurice Long, to the Chamber of Deputies in October, 1917, that the harvest of 1917 was the worst known for 50 years, the total production of all kinds of corn, potatoes, and beets having been only 777,000,000 bushels against 1,250,000,000 bushels in 1913.

The decree of November 30, 1917, which became operative on January 1, 1918, provides for:

Requisition by the State of all crops of native cereals, except the quantities retainable by the grower for family consumption, for seed, and for fodder for his own live stock.

Realization of these crops as far as possible by purchase, by private contract on behalf of the State, by millers, corn merchants, and receiving commissions, at a fixed scale of prices.

State control of all mills, and supply by the State to millers of the cereals bought on behalf of the State at a reduced scale of prices, millers being, for the most part, allowed to retain for the supply of their own mills any cereals bought by them.

<sup>1</sup> Information for this article was compiled from the following publications: *Journal Officiel de la République Française*, issues of Sept. 9, 1914, Aug. 4, 1917, Dec. 5, 1917, Jan. 17, 1918, Feb. 14, 1918, Mar. 14, 1918, Apr. 4, 12, 17, 19, and 28, May 13, 14, 23, and 29; *La République Française*, issues of Feb. 15, 1917, Mar. 1 and 2, 1917, Apr. 15, 1917, Dec. 19, 1917; *Manchester (England) Guardian*, issues of Oct. 17, 1917, Dec. 5, 1917; *National Food Journal (England)*, issue of Feb. 27, 1918; *Christian Science Monitor*, issues of Nov. 3, 1917, Mar. 11, 1918; and *MONTHLY REVIEW*, issues of April, 1917, pp. 528, 530, June, 1917, pp. 918, 919.

The fixing of a uniform price for flour, upon which the prefect of each Department is required to base a limiting price for bread, local prices within that limit being fixed by the mayors (*maires*).

The control of all transport of cereals by rail, water, or road, on a system of transport permits.

The allocation to each Department of a monthly quota of cereals, based on a declaration of requirements drawn up by the prefect, in accordance with the number, occupation, etc., of the population.

The scale of prices for cereals bought for the State by private contract according to the specifications laid down in article 22 of the decree was fixed as follows:

|                                 | Francs<br>per 100<br>kilo-<br>grams. | Per<br>bushel.    |
|---------------------------------|--------------------------------------|-------------------|
| Wheat.....                      | 50                                   | \$2.63            |
| Maize.....                      | 42                                   | 2.06              |
| Rye.....                        | 42                                   | 2.06              |
| Barley.....                     | 42                                   | 1.71              |
| Buckwheat.....                  | 42                                   | 1.55              |
| Maslin.....                     | 45                                   | <sup>1</sup> 3.94 |
| Sago.....                       | 35                                   | <sup>1</sup> 3.06 |
| Broad beans or horse beans..... | 45                                   | <sup>1</sup> 3.94 |
| Oats.....                       | 42                                   | 1.18              |

<sup>1</sup> Per hundredweight.

These prices are for grain of standard quality at the place of production. Standard wheat must weigh 77 kilograms to the hectoliter (59.8 pounds per bushel) and must not contain more than 2 per cent of impurities or foreign matter. The decree regulates the prices of transportation from the farms, as well as all other details concerning the purchase of the cereals under the different specified conditions.

The law modifies the law of July 29, 1916, by which the maximum price to be paid to growers of wheat from August 1, 1916, until one year after demobilization was fixed at 33 francs per 100 kilograms (\$1.74 per bushel).

The prices of these cereals to millers are as follows:

|                                 | Francs per<br>100 kilo-<br>grams. | Per bushel.       |
|---------------------------------|-----------------------------------|-------------------|
| Wheat.....                      | 43.00                             | \$2.26            |
| Maize.....                      | 43.00                             | 2.11              |
| Rye.....                        | 41.50                             | 2.03              |
| Barley.....                     | 38.60                             | 1.62              |
| Buckwheat.....                  | 34.40                             | 1.26              |
| Maslin.....                     | 42.30                             | <sup>1</sup> 3.70 |
| Sago.....                       | 27.50                             | <sup>1</sup> 2.41 |
| Broad beans or horse beans..... | 38.30                             | <sup>1</sup> 3.35 |

<sup>1</sup> Per hundredweight.

The difference between the price paid to the grower and the price at which millers may purchase is borne by the State from a credit voted for the purpose.

Millers are forbidden to sell or to send from their mills other products of the milling of wheat than whole-wheat flour, bran, and the clearings from the milling, the whole-wheat flour being intended to contain all the substance of the wheat except the bran and the impurities.

In the manufacture of bread whole-wheat flour is required to be mixed with one of the substitute flours authorized by the law of April 8, 1917, the proportion of the mixture being fixed in each Department by the prefect with the consent of the permanent bureau having charge of these matters. The flours to be used as substitutes in such mixture may be made from maize, maslin, broad beans, rye, barley, buckwheat, or sago.

Beginning with January 1, 1918, the price at the mills for whole-wheat flour, whether or not it is mixed with one of the substitute grains and in whatever proportion, is fixed at 51 francs per 100 kilograms (\$2.68 per bushel).

The retail sale of flour by grocers or other merchants is forbidden, bakers alone being permitted to sell it, and not in greater amounts than 50 grams (1.8 ounces) to a person in one week.

The decree provides for a standard type of flour to be established by the Ministry of Agriculture and Food Supplies, a specimen to be placed in the service for the repression of frauds in each prefecture, for the use of those interested.

The price to be paid by the State to the producer for cereals not for human consumption is also fixed by the decree and the further sale of them remains subject to the conditions prescribed in the decree of July 31, 1917.

In each Department the permanent bureau must keep a list of the mills which are authorized to mill, for food, cereals which have been kept by the producers for their family consumption, and such producers are forbidden to sell any of the cereals so kept under penalty of having their entire supply requisitioned. Bakers are forbidden to sell bread to producers authorized to retain cereals necessary for their family consumption, or to persons authorized by the permanent bureau to receive from a miller the quantity of flour necessary for such consumption.

#### BREAD RATIONING.

Bread rationing became an institution in France in the last days of January, 1918. The measure was approached with considerable hesitation and long debate in the Chamber of Deputies, and became operative only after two perfected schemes for the measure had been worked out and the dates for their enforcement set. As early



as March 1, 1917, the minister of agriculture and food supplies made an announcement that, in order to avoid the waste of bread, he had decided to regulate its consumption by the introduction of bread cards. Following the announcement a plan was worked out in detail according to which bread cards were to have been issued on August 4, 1917. The scheme never became effective, however, and was abandoned, apparently because its provisions were on so generous a scale as to provide for scarcely any restriction of consumption.

The second definite attempt at bread rationing was the plan embodied in M. Boret's system and explained at length in the decree of November 30, 1917, which was to become effective January 1, 1918. This scheme involved an elaborate classification of the population and a scale of rationing, according to age and social condition, of from 600 to 200 grams (1 pound 5 ounces to 7 ounces) daily. It was, however, delayed on account of the critical situation that arose with regard to the import of cereals.

After the interallied conference on the subject of the distribution of grain supplies had taken place in January the French Government decided in favor of the immediate enforcement of bread rationing. To have carried out the provisions of the scheme as originally planned would have necessitated considerable delay, which it was feared might lead to a panic among consumers and a very great increase in the price of bread. Consequently, the scheme was revised and made so simple as to be immediately practicable. Instead of a ration based upon a classification of the population, a flat ration was provided of 300 grams (10.5 ounces) a day to each individual, regardless of age or condition.

On January 29 the scheme was introduced in Paris and the suburbs to the distance of 25 kilometers' (15.5 miles) radius from the center. The plan is for the gradual extension of the region under bread rationing until all communes of over 20,000 inhabitants become subject to the system.

Tickets are issued at the mayors' or other political offices to applicants presenting sugar cards. Those not possessing sugar cards must supply proofs of identity and circumstance and comply with certain formalities. The cards contain three coupons, each for 100 grams (3.5 ounces) of bread or 50 grams (1.8 ounces) of flour or a 55 to 60 gram (2 to 2.1 ounces) roll or 50 grams of gluten bread, the three coupons being valid for one day only.

No tickets are required for bread served in restaurants. Permits for purchasing bread are issued to restaurants entitling them to an amount estimated on a basis of 100 grams (3.5 ounces) per meal served. A declaration as to the average number of meals served must be made in order to secure such a permit, which limits the holder to one baker.



Previous to the introduction of this system of rationing a few local schemes had been tried, one or two communes having made use of the bread tickets issued under the system of August, 1917, but nothing in the way of general or national bread rationing had been actually in force.

Up to the time the present regulation went into effect the French consumer had not paid appreciably more for his bread than before the War, owing to the work of the supply commission which was established by a decree of September 8, 1914, and intrusted with the important work of buying foreign wheat and reselling it to the Departments in need of it. Between May and the end of December, 1915, the commission had bought 5,758,000 quintals (634,704.3 tons) of imported wheat at prices much higher than the price charged the consumer—30 francs per hectoliter (\$2.04 per bushel)—the loss being borne by the State from a credit voted for the purpose, and the State maintaining a large number of ships which are used for transporting these cereals. The price to the consumer of a 2-kilogram (4 pounds 6 ounces) loaf of bread had not gone beyond 85 centimes (16.4 cents) in April, 1917, while in England the consumer then paid 10d. (20.2 cents) for a 4-pound loaf. The shortage of the 1917 crop, however, made even the work of the commission inadequate to meet the situation.

#### PLAN FOR FURTHER FOOD RATIONING.

The scheme for food rationing worked out by M. Boret included, besides the bread rationing introduced in January, an outline for the rationing of other foods, which provided for a ration paper on which tickets would be issued. The ration paper is to consist of 72 coupons, numbered 1 to 6—twelve of the coupons, one for each month of the year, to be numbered 1, twelve to be numbered 2, and so on consecutively to and including number 6. When it is decided to ration a commodity, the Government will announce that on application at the ticket-issuing offices coupons for that commodity, according to the ration category of the consumer, may be received in exchange for the coupon for the current month.

This scheme was designed to take effect in March, as under the legislative method followed in France M. Boret felt doubtful of his power to enforce the implied restrictions and therefore waited for the adoption by the Senate of a law considerably extending his power, by giving legal force to orders issued by the minister of agriculture and food supplies regulating or suspending the production, manufacture, distribution, sale, or consumption of foodstuffs and fodder. Such orders will have legal force, according to this law, which was adopted February 10, 1918, from the day they are issued until they are brought up for ratification by the two Houses during the month

following their issue. If they are not then approved they will lapse.

Taking advantage at once of the new powers conferred upon him by the law of February 10, 1918, M. Boret submitted his detailed scheme for rationing, which was embodied in the decree of February 12, 1918.

#### RESTRICTIONS.

Restrictions as to the sale of bread, pastries, and other products of flour were outlined in detail in the decree of November 30, 1917, but they have since undergone certain modifications specified in later decrees. According to the decree of February 12, 1918, the making and sale of all bread is forbidden except (a) the bread in current use, including "pain briè" and so-called "pain à soupe"; (b) the roll or "petit pain" having a maximum weight of 75 grams (2.6 ounces), (c) the long rolled loaf of a minimum weight of 7,000 grams (1 pound 8.7 ounces) and not longer than 80 centimeters (31½ inches).

The making of this bread is subject to further specific regulations as to size, contents, and weight.

In the communes in which bread tickets are used a roll may be sold upon surrender, by the purchaser, of a ticket calling for 100 grams (3.5 ounces) of bread or its equivalent, and "pain long" upon surrender of 8 tickets of 100 grams or their equivalent.

The sale of bread in loaves or slices with meat, ham, pastes, butter, jam, or other kind of food spread on it or inclosed in it is forbidden.

The only dietetic breads which may be made are gluten and casein breads.

#### PASTRIES AND BISCUITS.

The manufacture and sale of pastries and biscuits is forbidden by the decree of February 12, 1918, although the biscuit factories are allowed to remain open and to execute orders given by the Ministry of Agriculture and Food Supplies. The order came only after considerable opposition on the part of pastry and biscuit makers and after less severe restrictions imposed by the decree of November 30.

A decision of March 12, 1918, established a commission under the assistant secretary of state for food supplies for the purpose of considering measures involving the biscuit industry and the execution of them.

#### CONFECTIONERY, PRESERVED FRUITS, ETC.

The decree of February 12 further prohibits the manufacture and sale of confectionery made with honey or sugar, and of sweet dishes made with fresh or condensed milk, cream, eggs, sugar, or flour. Articles of this kind already made may not be exposed for sale in shop windows. The manufacture of milk chocolate, chocolate "de luxe," and chocolate fondants, and confectionery of chocolate is forbidden, but chocolate may be made in tablet, bar, or powder form.

## REGULATIONS GOVERNING RESTAURANTS AND SIMILAR ESTABLISHMENTS.

Under the decree of February 12, hotels, restaurants, boarding houses, cafés, buffets, tea shops, canteens, creameries, etc., are forbidden to serve fresh or preserved butter except in the preparation of food; curdled or sour milk; cream in any form, especially "crème Chantilly," "crème d'Isigny," and "le petit suisse"; cream cheese and soft cheeses such as "demi-sel," "brie," "coulommiers," and "camemberts," and imitations of them containing more than 36 grams (1.3 ounces) of fat to 100 grams (3.5 ounces) of dry matter. Consumption of such articles on the premises where they are sold is also forbidden. Sugar may not be served, but customers at restaurants may bring their own.

In all such establishments, except "wagon restaurants," canteens, and railway station buffets, it is forbidden to eat or to serve fresh or condensed milk or cream either alone or in tea, coffee, or cocoa after 9 o'clock in the morning; also all solid food between the hours of 9 and 11 o'clock in the morning and half past 2 and half past 6 in the afternoon.

In restaurants where the price of the meal, either à la carte or fixed, is more than 6 francs (\$1.16), one customer may not be served with more than two main courses, whether garnished with vegetables or not, nor with more than one roll or 100 grams (3.5 ounces) of bread. Soup, hors-d'œuvre, or oysters may be served, and for dessert fresh or stewed fruit, jam, marmalade, or an ice not containing milk, cream, sugar, eggs, or flour.

Further specifications regarding the sale of condensed milk of different grades are contained in a decree of May 21, 1918.

## LATER RESTRICTIONS.

A decree of April 2, 1918, regulates the making and sale of gluten and casein bread, forbids the use of wheat, rye, rye mixture, or buckwheat in the making of the powder products of cocoa and chocolate, the manufacture of which is permitted in the decree of February 12, and changes the prescribed size of the roll or "petit pain" to 80 grams (2.8 ounces) in weight and a length of not more than 25 centimeters (9.8 inches).

Circulars addressed by the minister of agriculture and food supplies to the prefects on April 15 and to agents of the service for the repression of frauds on April 16, 1918, emphasize the execution of the detail regarding the manufacture and sale of bread and other food-stuff as laid down in the decrees of November 30, 1917, and February 12, 1918.

## THE 1918 CROP.

July 1, 1918, is the date set for the declaration of the 1918 crops, according to a decree of May 21, 1918. Before this date producers

were required to make a declaration as to the amount of land planted in each kind of grain, beans, and potatoes. However, declarations as to the land planted in buckwheat are not required to be made until August 1. These declarations are to be made at the mayors' (*maires*) offices on printed forms, to be supplied to the producers by the prefectural administration.

The maximum prices to the producers of cereals of the 1918 crop bought for the State are as follows:

|   | Francs<br>per 100<br>kilograms. | Per bushel.                |
|---|---------------------------------|----------------------------|
| Wheat.....                                | 75                              | \$3. 94                    |
| Maize.....                                | 55                              | 2. 69                      |
| Rye.....                                  | 55                              | 2. 69                      |
| Barley.....                               | 55                              | 2. 31                      |
| Buckwheat.....                            | 55                              | 2. 02                      |
| Maslin.....                               | 62                              | <sup>1</sup> 5. 43         |
| White millet ( <i>millet blanc</i> )..... | 75                              | <sup>2</sup> \$3. 15-3. 28 |
| Sago, "dari," millet, or red millet.....  | 50                              | <sup>1</sup> 4. 38         |
| Broad beans or horse beans.....           | 68                              | <sup>1</sup> 5. 98         |
| Oats.....                                 | 55                              | 1. 54                      |

The buyer as well as the seller will be liable to the penalty provided for the selling at these prices of any cereals or beans harvested before 1918.

#### SUGAR.

There have been a few recent developments concerning the regulations governing the use and sale of sugar. This was the first article of food subjected to rationing in France, and it remained the only one until the bread-rationing scheme went into effect in January, 1918.

On February 15, 1917, a circular addressed by the prefect of the Department of the Seine to the mayors of the 20 districts composing Paris gave instructions concerning the introduction of sugar cards. Heads of families and others interested were requested to file declarations with the urban authorities stating their requirements for sugar in such a way as to show the exact number and size of all families. Later in February instructions were issued for the determination of the requirements for sugar for collective consumption, and a supplementary order in a decree issued by the prefect and prefect of police of the Department of the Seine provided supplementary allotments for children and sick persons.

The sugar card permits the holder to buy  $1\frac{1}{2}$  pounds of sugar a month for each person in the family if three meals are taken at home, 1 pound if two meals are taken at home, and  $\frac{1}{2}$  pound if only one meal is at home, or an annual allowance of 18 pounds of sugar for a person.

A decision of January 15, 1918, reduced the amount of sugar which the refineries are allowed to retain according to a decision of January 2, 1917, to 10 per cent of the production of each refinery.

<sup>1</sup> Per hundredweight.

<sup>2</sup> According to weight of bushel.

## NEW SCALE OF PRICES FOR SUGAR.

The wholesale price of sugar was regulated by a decree of April 1, 1918, which superseded former orders. According to this the following scale of prices went into effect April 12, 1918, the date of the official publication of the decree:

MAXIMUM PRICES OF VARIOUS KINDS OF SUGAR, AS FIXED BY DECREE OF APRIL 1, 1918.

| Kind of sugar.   | Price (inclusive of<br>excise duty). |  |
|--|--------------------------------------|--|
|  | Per 100<br>kilo-<br>grams.           | Equiva-<br>lent per<br>hundred-<br>weight. |
| Refined lump sugar:  |                                      |  |
| In packages of 5 kilograms (11<br>pounds) or over.....   | <i>Francs.</i><br>176.50             | \$15.45                                    |
| In packages of 1 kilogram (2.2 pounds)   | 178.75                               | 15.65                                      |
| Refined pulverized.....  | 176.50                               | 15.45                                      |
| Loaf.....  | 173.00                               | 15.15                                      |
| Loaf, in quantities of 3 kilograms (6.6<br>pounds) or less.....  | 174.50                               | 15.28                                      |
| Broken.....  | 173.00                               | 15.15                                      |
| Granulated or crystal of every origin<br>(inclusive of customs duty—applica-<br>ble to imported sugars)..... | 160.00                               | 14.01                                      |
| Granulated or crystal powdered sugar.....  | 163.00                               | 14.27                                      |
| Crystals, extra fine.....  | 163.00                               | 14.27                                      |
| "Vergeoises ou bâtardes" (by-products<br>of the refinery).....   | 151.75                               | 13.28                                      |

These prices are for cash on delivery at refineries, storage houses, or quay of a French port in the case of imported sugar, and do not include the refining tax of 2 francs per 100 kilograms (17.5 cents per 100 pounds), nor the inspection fee of 8 centimes per 100 kilograms (0.7 cents per 100 pounds), which are due on refined and granulated sugars and their derivatives.

Additional restrictions were placed upon the sale of saccharine for food manufacturing purposes by a decree of April 16, 1918, in order to correct abuses to which the minister of agriculture and food supplies called attention.

## MEATLESS DAYS.

The problem of meats has been one of profiteering rather than of shortage. Until the spring of 1917, while municipal meat markets had been opened in a few towns, the price of meat had not risen above the ordinary rise in price of all foodstuffs. In April of that year a decree was issued prohibiting the sale of fresh, salted, and preserved meat on all Tuesdays, from May 15 to October 15; but the decree did not become effective at that time and was followed by a plan for meatless evening meals, and in the spring of 1918 by a scheme for the opening of 60 municipal meat shops to be supplied by requisition, the number to be increased later if the scheme proved successful.

During the past year France has had actual experience with meatless evening meals and as many as three meatless days a week, a decree of April 26, 1918, forbidding the sale of fresh, salted, or preserved



meat on Wednesdays, Thursdays, and Fridays of each week, or the serving of it in public restaurants or other eating places on these days. Abattoirs and butcheries are required to be closed from 11 o'clock Monday night to 6 o'clock Wednesday morning of each week from May 13, 1918, and the number of each kind of animals killed each week in each abattoir or in all in the same town may not exceed the average weekly number killed in March, 1918. The only exception is in the case of horse meat, which is permitted to be sold on the meatless days, but only in markets handling this meat exclusively. The serving of this in restaurants and public eating places is, however, forbidden on the three meatless days.

Beginning with May 14 the amount of butcher's meat which may be bought on Tuesday of each week is limited to 200 grams (7 ounces) per consumer, by a decision of May 11, 1918.

In view of the restrictions placed upon meat, restaurants and other public eating places, on the meatless days, are permitted to serve, with meals costing more than 6 francs (\$1.16), curdled or sour milk, condensed milk, either alone or with coffee, tea, cocoa, etc., after 9 o'clock in the morning, and the cheeses which are forbidden on other days.

All efforts to govern the supply and price of meat seem to have been so far inadequate. In a report dated May 28, 1918, the minister of agriculture and food supplies emphasized the difficulties caused by the rising price of meat, saying that each rise in the price of meat requisitioned for military use was followed by a corresponding rise in the price for civil use and that the only solution of the problem seemed to be the fixing of a uniform price—that is, the requisitioning by the State of all meat, both for civil and for military consumption. He suggested a general declaration of their stock by owners of animals destined as food, both as a means of deciding upon the desirability of resorting to State requisitioning and also of determining the quantity of animal feed which will be required for these animals before the next harvest and therefore should be exempted from military requisition.

In accordance with this report, a decree of the same date required all owners of cattle, sheep, and hogs to be slaughtered for food to make declarations upon report blanks in the mayors' offices between June 28 and July 7, the results to be transmitted to the Ministry of Agriculture and Food Supplies before August 5.

Another decree has for its object the regulation of the sale of animals for butchery in Paris and requires sellers of such animals to offer them through the market of "La Villette," in order to prevent sales in railway stations and clandestine butcheries. Shipment direct to abattoirs can only take place by special authority of the prefect of police.



## WAGES AND HOURS OF LABOR.

### UNITED STATES SHIPPING BOARD INCREASES WAGES IN DECK AND ENGINE DEPARTMENTS.

At a conference between the United States Shipping Board and representatives of ship owners, licensed officers, and seamen, a standard wage scale applicable to the deck and engine departments was agreed upon and announced by the board on May 23. The following are the occupations covered and the wages established in each case:

|                              | Per month. |
|------------------------------|------------|
| Boatswain.....               | \$85. 00   |
| Boatswain's mate.....        | 80. 00     |
| Carpenter.....               | 90. 00     |
| Carpenter's mate.....        | 85. 00     |
| Quartermaster.....           | 77. 50     |
| Able seamen.....             | 75. 00     |
| Ordinary seamen.....         | 55. 00     |
| Boys.....                    | 40. 00     |
| Oilers.....                  | 80. 00     |
| Water tenders.....           | 80. 00     |
| Engine-room storekeeper..... | 80. 00     |
| Firemen.....                 | 75. 00     |
| Wipers.....                  | 65. 00     |
| Coal passers.....            | 65. 00     |

Each employee is to be paid at the rate of 60 cents an hour for overtime, and will be allowed, in addition to his wages, \$1.25 for meals while on shore. The war bonus on vessels sailing into the war zone will remain at 50 per cent. All vessels sailing from Atlantic and Gulf ports, except harbor craft and vessels owned or operated by the Navy, are included, and the new rates are effective as of May 4, 1918. Commissioner Page of the Shipping Board, in announcing the new wage scale, said:

Since the board has endeavored to fix an equitable scale, considering the increased cost of living, the wages paid in somewhat corresponding occupations on shore with allowances for food and lodging, and the necessity for attracting more men to the merchant sea service, it believes that no additional or increased bonuses or gifts other than above specified should be paid. Except as herein provided there shall be no change in working rules or regulations.

This wage scale shall remain in force until in the judgment of the United States Shipping Board conditions warrant a change.

Owing to their greater complexity, the new classification of vessels and the wage scales of the steward's department and of the licensed officers of the deck and engine departments are still in preparation but will be decided upon and announced shortly. These will also become effective from and after May 4. As a fair and satisfactory wage agreement has recently been made on the Pacific coast, the Shipping Board will at this time make no change in Pacific coast conditions.

INCREASES IN BRITISH RAILWAY WAGES COMPARED WITH INCREASES  
IN COST OF LIVING.

With its recent report to the Director General of Railroads recommending an increase in the wages of railway employees, the Railroad Wage Commission submitted a summary of British railway experience which it was believed would be of interest in connection with the investigation in the United States. After a description of the assuming and exercising of control by the Government, the administration, the rate of compensation, etc., the summary is confined to a survey of labor, wages, and cost of living, concluding with a comparison of the increases in wages granted during the War and the increased cost of living during the same period.

Within that time there have been five increases in the remuneration of male railway transportation workers, aggregating 21s. (\$5.11) per employee per week.<sup>1</sup> These have been in the form of uniform flat sums applicable to all wage groups, so that the lowest paid men would benefit the most. They were given at first as war bonuses, but in August, 1917, the long-standing demand of the unions that "bonuses" become "wages" was acceded to, and since then the wage basis for computing overtime and Sunday work has taken these increases into account.

When the War broke out the railway unions were demanding an increase of 5s. (\$1.22) a week for all classes, and in January, 1915, the demand was repeated. On February 13, 1915, the companies granted 3s. (\$0.73) a week to all whose standard rate was under 30s. (\$7.30), and 2s. (\$0.49) to those whose standard rate was 30s. or more. This bonus proved inadequate to meet the continued rise in prices, and another demand for an increase of 5s. (\$1.22) was met by an agreement October 16, 1915, to pay a further 2s. (\$0.49) a week to employees receiving the 3s. bonus and 3s. (\$0.73) to those receiving the 2s. bonus, the aggregate bonus for all adult males thus becoming 5s. (\$1.22) a week. In August, 1916, an increase of 10s. (\$2.43) a week was demanded as wages rather than bonus, and after strike threats an additional bonus of 5s. (\$1.22) a week was agreed to, making 10s. (\$2.43) in all. This was not satisfactory for long, and in March, 1917, the unions again demanded an advance of 10s. (\$2.43) a week, agreeing on April 12 to accept one-half that amount. In October, 1917, the enginemen and firemen applied for additional wages to the arbitration board established by the Government, and in November they were awarded 5s. a week. The National Union of Railway Men (which in 1914 comprised about 50 per cent of all railway workers) thereupon applied to the railway executive com-

<sup>1</sup> In the Labour Gazette of the British Ministry of Labor for May, 1918 (p. 174), it is stated that since the date of this summary a further advance of 4s. (\$0.97) a week has been granted, making in all an increase over prewar rates of 25s. (\$6.08).

mittee for an increase of 10s. (\$2.43). On November 29 these men were granted an advance of 6s. (\$1.46), which was later extended to all transportation workers, making the aggregate wage increase of adult male employees 21s. (\$5.11) a week per employee.

Shop workers, women, and salaried employees were not included in the negotiations described. The first mentioned received a bonus of 3s. (\$0.73) a week in February, 1915, later increased to 4s. (\$0.97) for timeworkers and 10 per cent for pieceworkers; in September, 1916, they received another 5s. (\$1.22) a week; in February, 1917 (for some), and in April (for those remaining), a further 5s. (\$1.22) a week was granted, and on August 1, 1917, an advance of 3s. (\$0.73) a week became effective, these increases being added to the weekly earnings of pieceworkers as well as applying to timeworkers.

At the time of the granting of the second bonus to men the unions presented the claim of the women workers, most of whom had entered railway employment since the War began, but they were unsuccessful. When the men applied for the third increase the women's claims were again presented, and a bonus of 3s. (\$0.73) a week was granted. In April, 1917, women were given an additional 2s. 6d. (\$0.61) and on November 9, 1917, a further increase of 3s. (\$0.73), making an aggregate increase of 8s. 6d. (\$2.07) a week per woman employee.

No bonus was given to salaried employees until July 1, 1916. At that date employees receiving less than £200 (\$973.30) a year were granted a war bonus of £13 (\$63.26) a year, or 5s. (\$1.22) a week, and those receiving salaries between £200 and £213 were granted an increase sufficient to raise them to £213 (\$1,036.56). These bonuses were doubled in September, 1916.

On the Irish railways, which did not go under Government control until January 1, 1917, the engineers have been granted bonuses aggregating 13s. (\$3.16) a week, the firemen 12s. 9d. (\$3.10), and all other classes 5s. (\$1.22) a week.

The present cost of all the increases is estimated by the railway executive committee at \$160,000,000 a year. With the exception of one-fourth of the first bonus, borne by the railway companies, all the increases have been guaranteed by the Government.

According to available information the sole ground upon which the employees based their demands was the rise in the cost of living. This they ascertained from the Board of Trade figures published in the Labor Gazette, which show monthly, for the country as a whole, for large towns and for small towns, the percentage increases in the retail prices of food over the prices in July, 1914. The railway managers declined to accept these figures, and secured instead, also from the Board of Trade, figures combining all items of ordinary family expenditure—food, rent, clothing, fuel, light, etc. These percentage increases were somewhat lower than those for food alone.

In order to compare the increased wages granted with the increased cost of living there have been computed for the summary under review the average weekly compensation per wage earner in 1913, based on about 80 per cent of all railway employees, and the average percentage increase in that compensation secured by each advance. As overtime earnings must have been greater during the War than in 1913, the actual increases must be somewhat larger than the figures thus obtained.

The table following shows these average percentage increases in wages over 1913, compared with the average percentage increases over July, 1914, in the cost of living, at the dates on which the various wage increases took effect. Comparing these figures, "the conclusion is clear that although railway wages in Great Britain have always lagged behind the cost of living, each increase in these wages during the War has not been far below the increase in the cost of living as shown by British Government figures."

COMPARISON OF INCREASE IN COST OF LIVING AND WAGE INCREASES DURING THE WAR.

| Date.               | Average percentage increase in cost of living over July, 1914. | Average percentage increase of wage increases over average compensation in 1913. |
|---------------------|--|--|
| Feb. 15, 1915.....  | 15   | 7-11   |
| Oct. 17, 1915.....  | 27   | 15-20  |
| Sept. 10, 1916..... | 45-50  | 35-40  |
| Apr. 9, 1917.....   | 70-75  | 50   |
| Nov. 29, 1917.....  | 80-85  | 75-80  |

WAGE INCREASES REPORTED BY AMERICAN CONSULS IN GREAT BRITAIN AND CANADA.

Wage increases in certain trades in Dundee (Scotland) and in Yorkshire (England) and affecting the Canadian Government Railways clerks have been reported to this bureau by the State Department in the form of communications received from the American consuls, respectively, at Dundee and Bradford, and at Moncton, New Brunswick.

GREAT BRITAIN.

It appears from recently published reports that in February, 1918, an agreement was concluded between certain employers' and operatives' associations connected with the building trades of Scotland for the adjustment of wages during the period of the War. The American consul reports that the agreement provides for the suspension of the previously existing agreements and practices under

which applications for general advances in wages have been dealt with and for the substitution therefor of a special procedure whereby the committee on production may be called upon to consider at intervals of four months, namely, in February, June, and October, what general alterations in wages, if any, are warranted by the abnormal conditions then existing and due to the War. The agreement also provides that all negotiations on the wages question shall be on a national basis and apply to all sections of the building trades. The procedure seems to be to have a representative committee submit, on behalf of all the building trades, a claim before the committee on production with the understanding that whatever increase may be granted is to apply to all alike. A motion adopted at the time the agreement was formulated permits the central committee of the operatives' association to act on its own initiative, during the period of the War, in negotiations pertaining to wages and to offer suggestions as to the amount of increase to be put forward.

Under date of May 4 the American consul at Dundee reports that the first hearing under the agreement took place on April 22, when an application for an advance of 12 cents an hour was considered. The committee made its award on April 29, determining that workmen who since the outbreak of the War have received general advances amounting to  $7\frac{1}{2}$  cents an hour or upwards, but less than 10 cents an hour, shall receive such further increase as shall make the advances up to 10 cents an hour above prewar rates; and that in cases in which the general advances have amounted to less than  $7\frac{1}{2}$  cents an hour the workmen concerned are to receive a further increase of  $2\frac{1}{2}$  cents an hour.

Concerning the wages of harbor workers at Dundee the American consul reports, under date of May 4, as follows:

The Dundee Harbor Trust have recently agreed to give an increase of 97 cents a week to dockmasters and dockgatemens, of \$2.67 to masters of Tay ferries steamers, bringing up their wages to \$15.56 per week; of \$1.46 to mates, bringing up their pay to \$12.16 per week; and of 97 cents to others, bringing up their wages to \$10.70 per week.

In regard to the pilots, it has been decided that a sum of \$48.66 be paid to pilot masters and pilots at the end of the present quarter, in addition to their fixed wage and ordinary bonus. In view of the small surplus on the pilotage accounts, it has been decided to place before the Board of Trade the whole state of the pilotage service, with the view to the pilotage rates being increased.

A few weeks ago, according to a report dated May 1 received from the American consul at Bradford (England), the employers and workpeople in the dyeing and finishing trade in Yorkshire agreed upon a sliding scale to regulate advances in wages, the increased cost of living since the War as published in the Labor Gazette to be used every three months to determine if any advance in the rate of war wages is justified. The agreement provided that in the months

of April, July, October, and January a joint committee, consisting of equal numbers of employers and trade-union representatives, shall meet and examine the Labor Gazette for the purpose named. Taking up the consul's report at this point, it appears that—

The committee met at Bradford on April 30 and ascertained that since the previous increase a few weeks ago—when the advances ranged from 17s. 6d. (\$4.26) to £1 0s. 5d. (\$4.97) per week—the cost of living had increased from 85 per cent to 87.5 per cent, and that this involved a further increase in the rate of war wages, as follows:

Instead of 72.75 per cent in war wages now paid to time workers they will receive 75 per cent; piece workers will get 60 per cent instead of 58.25 per cent; hand pressers, 45 per cent instead of 43.75 per cent. These increases will come into force this week and will be continued until the last day in July, when the joint committee will meet again in order to discuss whether there shall be any variation.

#### CANADA.

The American consul at Moncton, New Brunswick, under date of May 3, has submitted the following statement concerning higher wages for Canadian Government Railways clerks:

In terms of a new schedule of wages agreed upon between the management of the Canadian Government Railways and the Canadian Brotherhood of Railway Employees several months ago the clerks in the various departments are now in receipt of their current pay checks in which are included back time dating from December 1, 1917. To all office employees increases of pay from \$10 to \$25 per month have been granted. Fifty dollars has been made the minimum monthly compensation of female employees in clerical positions who are 17 years of age or over. Satisfactory increases have also been arranged for the outside employees who come within the scope of the Canadian Brotherhood of Railway Employees. These include freight office clerks, shed employees, and some others.



## MINIMUM WAGE.

### ORDERS OF KANSAS INDUSTRIAL WELFARE COMMISSION REGARDING EMPLOYMENT OF WOMEN.<sup>1</sup>

In the MONTHLY REVIEW for October, 1917 (p. 80),<sup>2</sup> mention was made of the promulgation by the Kansas Industrial Welfare Commission of three orders, two affecting the employment of females in laundries and one in mercantile establishments. One of the laundry decrees established 9 hours as the regular day's work and provided that no female person should be required to work more than 10 hours in any one day nor more than 54 hours in any one week. A new laundry decree has since been issued, effective May 14, 1918, reaffirming the fixing of 9 hours as a regular day's work, but prohibiting the employment of females for more than 9 hours in any one day instead of 10 hours as in the previous order. It also fixes \$8.50 per week for 54 hours' labor as the minimum wage to be paid to a female, "provided she shall have served a 6 months' apprenticeship in laundry work, for which the wages shall be not less than \$6.50 per week." The decree is as follows:

#### ORDER AFFECTING EMPLOYMENT OF FEMALES IN LAUNDRIES.

The Industrial Welfare Commission of the State of Kansas hereby orders that—

Nine hours shall constitute a regular day's work for female laborers in laundries in the State; and no female person shall be required to work more than 9 hours in any one day nor more than 54 hours in any one week. Said nine hours shall be consecutive, except that not less than one hour shall be allowed for lunch, and no female person shall be compelled to work more than six consecutive hours without such allowance of time for lunch.

Each employer in any laundry in the State of Kansas shall, within five days from the time this order takes effect, post and thereafter keep posted in a conspicuous place, within 5 feet of the main entrance or not more than 5 feet from the floor in the rooms in which female persons are employed, a printed notice stating the number of hours of work required of each of them each day, the hours of beginning and stopping work and the hours when the time allowed for lunch begins and ends.

The minimum wage to be paid to any female employee in laundries shall be not less than \$8.50 per week for 54 hours' labor, provided she shall have served a six months' apprenticeship in laundry work, for which the wage shall be not less than \$6.50 per week.

Said order shall become effective on and after May 14, 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.

<sup>1</sup> Data furnished by the Kansas Industrial Welfare Commission, Topeka.

<sup>2</sup> See also MONTHLY REVIEW for February, 1918, p. 143, and for April, 1918, p. 203.

## EMPLOYMENT OF FEMALES IN HOTELS, RESTAURANTS, ETC.

The State public housekeeping board submitted to the industrial welfare commission certain recommendations, which have been approved and go into effect on July 22, 1918, affecting the hours of labor of females in hotels, restaurants, and places where lunches and meals are served to the public. These places are designated as "employers of females in the public housekeeping occupation" and are, in the order, treated in two groups—those who elect to conduct their business, respectively, on a seven-day-per-week schedule and on a six-day-per-week schedule. Employers in the second group may not require females to give more than 9 hours' actual service per day nor more than 54 hours per week, said day's work to be performed within a period of 13 consecutive hours, one hour of which shall be allowed for meals. Employers in the first group may not permit their female help to give more than 8 hours' actual service per day, the other restrictions being the same as for the second group. The employment of minors in these occupations is limited to 8 hours in any one day and 48 hours in any one week. Minors may not be employed between 7 p. m. and 7 a. m. This order is as follows:

Employers of female help in the public housekeeping occupation in the State of Kansas shall elect to conduct their business on a seven-day-per-week schedule or a six-day-per-week schedule.

Employers of female help conducting their business on a six-day-per-week schedule shall not permit such help to give more than 9 hours' actual service per day and not to exceed 54 hours per week. Said day's work shall be performed within a period of 13 consecutive hours, one hour of which period shall be allowed for meals. Said hour shall not be included as any part of the day's work.

Employers of female help conducting their business on a seven-day-per-week schedule shall not permit such help to give more than 8 hours' actual service per day and not to exceed 54 hours per week. Said day's work shall be performed within a period of 13 consecutive hours, 1 hour of which shall be allowed for meals.

Any female employee continuing work after midnight shall be considered a night employee, and any employer using the six-day-per-week schedule shall not permit night employees to work more than 8 hours within a period of 12 hours in any 24 hours and not more than 48 hours in any one week. Employers using the seven-day-per-week schedule shall not permit night employees to work more than 7 hours within a period of 12 hours in any 24 hours nor more than 48 hours per week.

Employers of minors in public housekeeping occupations in the State of Kansas shall not permit such employees to work more than 8 hours in any one day nor more than 6 days in any one week nor more than 48 hours in any one week. Minors shall not be employed at night and their hours of service must be between 7 a. m. and 7 p. m.

An order relating to and governing hours of work and minimum wages to be paid to females and minors working as telephone operators is now the subject of hearings, after which its final approval by the commission will be required before it becomes effective.

## EMPLOYMENT OF WOMEN ON WAR WORK.

In order to obtain assistance in the work of regulating establishments employing female labor the industrial welfare commission appointed a State war board to make recommendations affecting all industries not regulated, giving special attention and consideration to the condition of women in industry during the War. Numerous appeals asking for a suspension of orders during war time prompted the commission to request the war board to outline the policy which shall govern its investigation of females employed on war work and furnish a basis for its recommendations to the commission concerning women workers during the period of the War. The war board accordingly issued an open letter, bearing the signatures of its nine members, representing equally employers, employees, and the public generally, which is being given general circulation throughout the State of Kansas and is here reproduced in full.

## AN OPEN LETTER CONCERNING THE WOMEN WORKERS OF KANSAS.

This board, known as the war board, having been called together by the Industrial Welfare Commission of the State of Kansas, deems it expedient to outline the purpose of this board and to state the general principle to which we shall adhere in our investigation and in any recommendations that we may hereafter make to the industrial welfare commission. We most heartily adopt the views expressed in the recommendations of Maj. Gen. Crozier, Chief of Ordnance of the United States Army, wherein he said:

"Industrial history proves that reasonable hours, fair working conditions, and a proper wage schedule are essential to industrial production."

It shall also be our aim to make such recommendations as to methods as will increase the efficiency of women and minors and be advantageous in the successful conduct of the War. In the supreme test of the Nation's strength and endurance, continuous production of war supplies is the great service which the workers are called upon to perform. This aim can be attained only by insuring the health and welfare of these workers. In order to secure the fullest working capacity, wage-earning women and minors must be assured proper hours, adequate remuneration and wholesome conditions of work. Moreover, all women workers must be protected against the bad effects of overwork and unwholesome conditions, not merely as workers whose efficiency is needed in the War, but as citizens upon whose well-being the future of the country largely depends. It will be our purpose to see that existing legal standards be rigidly maintained, and where these standards do not justly meet the demands of the women workers as above set out, we purpose fairly and impartially to raise the standards. We believe that adequate steps should be taken to safeguard all women employees from fatigue and overstrain and by this means insure the highest state of efficiency among such workers.

As our investigation proceeds we will have occasion to make inquiry into the different industries of Kansas where females and minors are employed and it shall be our purpose to do exact justice to both employers and employees. The exigencies of war have created, and will doubtless continue to create, a tendency on the part of employers to ignore the rulings of the industrial welfare commission heretofore adopted and to appeal to the commission for a suspension of these rulings during the continuance of the War. We believe that such disposition on the part of employers is

unwarranted and unwise and detrimental to the best interest of the women workers of the State. It interferes with the maximum production of war supplies and is not to the best interest of the Nation in the prosecution of its war program.

In this view the war board is supported by the expressed recommendations of the President of the United States, the Secretary of War, the Secretary of Commerce, the Secretary of Labor, and the Council of National Defense. It shall be our purpose to follow the recommendations made by Government officials with regard to the standards for employment of women and we shall endeavor to work harmoniously with the Government in its attempt to bring about a high state of efficiency and the maximum production of supplies, and to this end we shall make recommendations concerning hours of labor for women and minors where they have not heretofore been fixed by the commission, wages commensurate with the cost of living, prohibition of unnecessary night work as a protection both morally and physically to women workers, rest periods, time for meals, regular holidays, proper provision for seats, and the prohibition of excessive and unreasonable lifting, and many other recommendations which will no doubt present themselves as our investigation proceeds.

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#### REGULATION OF HOURS AND WAGES IN THE PEA CANNERIES OF WISCONSIN.

On April 30, 1918, the Industrial Commission of Wisconsin issued orders regulating the hours of employment and wages of woman workers in pea canneries of the State. These orders establish 10 hours per day and 55 hours per week as the normal working period. In emergencies woman workers may be employed overtime on not more than 15 days during the pea-canning season, the total hours worked, including overtime, not to exceed 12 in any day or 70 during any week. The orders provide a minimum wage for inexperienced female workers of 15 cents an hour during the regular working day of 10 hours, and 22 cents an hour for overtime, and for experienced workers a minimum of 18 cents an hour and 25 cents an hour for overtime.

The commission states that—

From the testimony before the commission it is clear that much of the work which women do in pea canneries is comparatively light; but it is also monotonous work, and in some plants is done under conditions characterized by excessive heat and great humidity. The work of picking, at which a large number of women are employed in pea canneries, is admitted to involve considerable eyestrain. Considering all factors, the work of women in pea canneries is not of such a character as would warrant the commission in reducing the hours of labor below those which prevail in other industries. It is equally clear from the testimony that this work is not so totally different in character from that done by women in other employments as to warrant the commission in establishing a normal working day in excess of the 10 hours a day at day work and 8 hours a night at night work permitted by the statutes. When normal conditions prevail the pea canneries should comply with these restrictions as well as all other places of employment.

In pea canning, however, abnormal conditions are quite frequently met with, occasioned by breakdowns, bad weather, or climatic changes. On such occasions the factory must operate longer than the normal hours or part of the food product will

be lost. Shelled peas can not readily be kept overnight; hence it is always necessary to can all peas on the same day on which they are vined. At such times it is desirable that pea-canning factories should be permitted to employ their female help in excess of 10 hours per day. In so far as overtime on such occasions is not prejudicial to the life, health, safety, or welfare of the women employed, it should be permitted. But the commission is convinced that women in pea-canning factories should not be employed for more than 12 hours in any one day or for more than 70 hours in any one week.

The orders of the commission, made in accordance with the above findings, are as follows:

Order No. 1: The normal working days for women in pea-canning factories shall not exceed 10 hours a day or 55 hours a week, exclusive of mealtime.

Order No. 2: When abnormal conditions prevail by reason of breakdowns, bad weather or climatic changes, pea-canning factories which have complied with the laws regarding safety and sanitation and the orders of the industrial commission issued thereunder, and which have made due provision for observing Order No. 1, while canning peas may employ women in the canning factory proper and in the warehouse in excess of the statutory limit for women of 10 hours a day on not to exceed 15 days during the season, but not more than 12 hours on any day, and not more than 70 hours during any week, provided the following conditions are observed:

(a) Women including permit girls who have not been employed in any pea-canning factory prior to this season shall be paid not less than 15 cents per hour for work within the statutory limit for women of 10 hours a day, and not less than 22 cents per hour for work in excess of this limit.

(b) Women including permit girls who have been employed in any pea-canning factory prior to this season shall be paid not less than 18 cents per hour for work within the statutory limit for women of 10 hours a day and not less than 25 cents per hour for work in excess of this limit.

(c) There must be a period of rest of at least 9 consecutive hours from the ending of work on any one day to the beginning of work on the next day.

NOTE: A day shall be considered to be the 24 hours beginning at 6 o'clock a. m. of each calendar day.

Order No. 3: Pea-canning factories must designate some one person in their plant to see that these orders are observed, who will be held responsible jointly with the employer for all violations. The name of this person must be submitted to the commission before the beginning of the canning season.

Order No. 4: Correct permanent time and statistical records shall be kept at each plant, subject to the approval of the industrial commission and open to inspection at all times, and a final report containing detailed information shall be made by the employer to the commission on blanks furnished by the commission.

Order No. 5: Copies of these orders shall be posted and kept posted in at least three different places in each factory.

April 30, 1918.



## WOMEN IN INDUSTRY.

### WOMEN MUNITION WORKERS IN FRANCE.

BY MARY CONYNGTON.

There is no question that women have played an important part in the industrial life of France since the outbreak of the War. As the men were mobilized, the women took their places, carried on without interruption, as far as war conditions permitted, the ordinary industries, helped to meet the tremendous demand for munitions, filled the vacant clerical places, did their utmost in agriculture, helped to man the depleted postal, express, and railway services, and in general showed themselves able and more than willing to take their part in a field of activity far wider than had ever been opened to them before. But whereas in England the employment of women in new occupations was a matter for cautious consideration and much discussion, in France it was taken as a matter of course. Discussions and reports concerning their new activities are conspicuous by their rarity, and even to-day, nearly four years after the change in their condition began, it is impossible to learn, except for the establishments under the control of the factory inspectors, how far the number of women employed has increased, or to secure details as to the new occupations they have taken up, and how they have fared therein.

For this matter-of-course attitude toward their work the economic position occupied by women before the War seems to be largely responsible. According to the traditional English idea, wage-earning was a man's business, and a woman's appearance in the business or industrial world was theoretically a merely temporary and accidental circumstance, or else a confession of poverty. In France, on the contrary, although the women were expected, as a matter of course, to be good housekeepers and devoted mothers, they were also expected, as a matter of course, to share in the business side of the family life. Throughout the middle classes it was the natural thing for a woman on marriage to take a part in her husband's business, to keep the books, or go into the shop or store, or help in the buying, or otherwise act as a business partner. Consequently, when war called the men away, there was no particular opposition to be overcome before women could take their places. They had always helped in the family business; now the field of their activities was extended, and they appeared in some kinds of work they had not formerly engaged in, but the change was one of degree, not of kind.



Another circumstance which prevented their employment from taking as great a hold upon the popular imagination as in England was the possibility of importing labor. In England, workers might be brought in from Ireland to some extent, but the supply was limited, and apart from it there was practically no chance of bringing in outside help. But France could and did import male laborers in great numbers. This policy was adopted in 1915, when a scarcity of labor began to be felt, and by December, 1916, as officially reported, 191,700 workers from the colonies and from foreign countries were employed in industry, commerce, and agriculture, and in particular in munition work.<sup>1</sup> The existence of this reserve labor supply made it unnecessary for France to insist so strongly upon the duty of women to enter industrial work. It was less necessary to work up interest and enthusiasm over what they could do in the way of patriotic service, and their employment was not brought into the limelight as it was in England. There was even some doubt whether in the interest of the race foreign labor should not be relied upon altogether to meet the need of the hour, the industrial employment of women being restricted to its former level, or perhaps even reduced.<sup>2</sup> This view does not seem to have made much headway, but its existence would have a tendency to keep public authorities from stressing the importance of women's work.

Owing to this general attitude it is not possible to follow the development of new lines of work for women in France as it is in England. In general, it may be said that, just as in England, the outbreak of the War was followed by a severe crisis of unemployment, which was felt more generally by the women than by the men. The recovery was more rapid than it was in England, and by the beginning of 1915 the number of the unemployed had sunk to the prewar level.<sup>3</sup> During 1915 it was found necessary to urge women to enter industry, and to bring in workers from abroad. In this article only munition workers are considered.

In France, even more than in Great Britain, one of the first and most pressing necessities was an immense production of munitions, but the methods adopted to secure this differed in the two countries. The English Government took general control and oversight of the munitions industries, carrying on a large part of the production in national factories, and exercising a close control over private employers to whom contracts were let. France at first relied almost wholly on private enterprise, and though later on the Government took a more direct share in production, private employers still control a large part of the industry. In 1915 an English commis-

<sup>1</sup> Bulletin du Ministère du Travail, Paris, September-November, 1916, p. 429.

<sup>2</sup> See, for example, *La France pays ouvrier*, by Pierre Hamp, Paris, 1916, pp. 58-61.

<sup>3</sup> Bulletin des Usines de Guerre, Paris, Feb. 18, 1918, p. 337.

sion visited France "to report on the causes which have contributed to the enormous increase which has taken place in the production of munitions in that country, notwithstanding that one-eighth of the country and five-eighths of the former metallurgical activity are in the hands of the enemy." They found the Government taking almost no direct part in the production:

It is remarkable that this effort is due to private enterprise. No factories have been subsidized by the Government, nor have loans of any kind been made to the owners. The owners have, at competitive prices, taken orders from the Government, and on the strength of these orders have purchased land, built factories, procured machinery, and now depend on the contract prices for reimbursement of their outlay and for gaining the profit to which they are entitled.<sup>1</sup>

The commission found that the small shop formed an important factor in the production of munitions, machine operations being its special field. It was estimated that at that time there were 1,800 of these small shops in the Paris district alone. These were frequently family affairs in which the question of the sex of the worker was hardly raised. The women of the family took their part, as a matter of course, and if outside workers were added as demands increased, there was no prejudice against women workers to be overcome. The report cites the case of one small shop in which the day shift was superintended by the father and daughter, and the night shift by the mother and son:

Although the shop was of meager proportions and the equipment poor, very satisfactory output was effected, due no doubt to the spirit which dominated everyone employed in it. In another case, a very small shop, the work had been superintended by the wife of the owner, who was serving in the army. The woman worked herself to death, and the husband was ordered back from the army to continue the work she had been doing.<sup>2</sup>

It is difficult to get precise data as to the number of women employed in munition work, owing partly, perhaps, to their being thus scattered through small shops. Some indication of their increasing employment is found in the following figures:

NUMBER OF WOMEN REPORTED AS EMPLOYED IN MUNITION MAKING AT SPECIFIED PERIODS.<sup>3</sup>

| Date.                         | In private establishments. | In State establishments. | Total.  |
|-------------------------------|----------------------------|--------------------------|---------|
| July, 1915 <sup>4</sup> ..... | 30,000                     | 14,162                   | 44,162  |
| January, 1916.....            | 83,007                     | 26,293                   | 109,300 |
| January, 1917.....            | 297,165                    | 63,366                   | 360,531 |
| January, 1918.....            | 322,067                    | 77,564                   | 399,631 |

<sup>1</sup> Great Britain, Ministry of Munitions, Report on the output of munitions in France, December, 1915, p. 3. (Cd. 8187.)

<sup>2</sup> *Idem*, p. 4.

<sup>3</sup> Bulletin du Ministère du Travail, July-August, 1915, pp. 180, 181; January-February, 1916, p. 7; January-February, 1918, p. 6. (The figures for 1917 and 1918 are calculated from percentages given in the bulletin last quoted.)

<sup>4</sup> The figures for private establishments were taken in the latter half of July, while those for State establishments are for June 30.

The proportion which women formed of the total number of workers in these establishments rose from 14 per cent in January, 1916, to 23 per cent in January, 1918.

During 1914 and the first part of 1915, the difficulty was to secure employment for idle workers rather than to secure workers, and no record can be found of any effort to increase the number of women employed. During the latter part of 1915 the demand for workers outstripped the supply, and laborers were brought in from French colonies and from foreign countries.<sup>1</sup> But there were several objections to this policy, and in 1916 the Government began to urge the more extensive employment of women, especially in munition work. In July, 1916, the controller of military work in Paris published an appeal to employers to substitute women for the men withdrawn for the army wherever this might be practicable, and cited numerous operations in the manufacture of munitions in which they had been found satisfactory. In the same month appeared an official announcement forbidding the employment of mobilized men on specified operations in munition factories, and expressly reserving these operations for women.<sup>2</sup> A week later an official note was published, pointing out operations apart from the manufacture of shells which women could undertake. In this note it was urged that good working conditions should be provided and that women should not be discouraged by having their piece rates cut as they gained dexterity. "Overseers and foremen are urged not to be too severe, and to remember that the presence of these women is urgently necessary for the national welfare."<sup>3</sup> Soon after this the War Office advocated the transfer of women from places where their work was not needed to munition centers where they could be employed upon work of national importance. Careful arrangements for such transfers were outlined. Employers wishing to secure such workers were required to submit an application covering the following points:<sup>4</sup>

(1) The kind of work to which the women thus secured should be put. (2) The wages offered, whether at piece rate or by the day; also whether work would be by night or by day. (3) Whether the employer would furnish lodging; if so, whether in dormitories or chambers; how many beds in each? (4) Whether the employer expects to furnish board? (5) If the employer does not furnish board and lodging, what arrangements can the women make for these in the neighborhood?

Appeals to employers to take advantage of this means of securing additional workers appeared rather frequently thereafter in official publications, and later in the year employers were urged to extend the list of operations turned over to women. It was pointed out that women

<sup>1</sup> For details, see MONTHLY REVIEW, August, 1917, p. 117.

<sup>2</sup> Bulletin des Usines de Guerre, Paris, July 17, 1916, p. 95; July 24, 1916, p. 101.

<sup>3</sup> Idem, July 31, 1916.

<sup>4</sup> Idem, Aug. 28, 1916.

are especially fitted for operations requiring care and precision, and examples were given of establishments in which they have been employed successfully in the most delicate operations of tool making. Accounts were given also of methods by which in various establishments they were being trained for skilled work.

By the end of the year 1916 all the women readily obtainable were at work, and the public employment bureaus were called upon to look up further sources of supply. Women who were accustomed to work for wages, it was admitted, were for the most part employed, the exceptions being mainly those who were kept at home by the care of small children or invalid dependents; but much might be done by recruiting among women who had never been industrially employed. It was advised that a beginning should be made among those receiving allotments, either as refugees or as dependents of men in military service; it would be well to commence by presenting the matter gently to them, the need of the country for their services should be set forth, and doubtless they would respond. It was urged that at the very least an inquiry should be made among these women in each locality to find out how many of those aged 21 or over were without young children or other ties which would interfere with their employment.<sup>1</sup> The figures given above show how successful these efforts were in increasing the number of women employed in munition work.

#### FORMER OCCUPATIONS.

As a result of these various measures the number of women munition workers increased from 44,162 in 1915 to an estimated total of 399,631 at the beginning of 1918. As was the case in England, these were brought in from a variety of other pursuits or from household life. In 1915 the British commission already referred to found that the 1,887 women employed in one large factory had previously been occupied as follows:<sup>2</sup>

|   | Number. | Per cent. |
|---|---------|-----------|
| Housewives.....                             | 400     | 21.2      |
| Domestic servants or children's nurses..... | 103     | 5.5       |
| Factory employees.....                      | 311     | 16.5      |
| Mechanics.....                              | 4       | .2        |
| Clerks.....                                 | 232     | 12.3      |
| Dressmakers, milliners, garment makers..... | 641     | 34.0      |
| Lace makers and embroiderers.....           | 24      | 1.2       |
| Various occupations.....                    | 172     | 9.1       |
| Total.....                                  | 1,887   | 100.0     |

These data were collected in 1915, at a time when little if any effort had been made to induce women to take up munition work, yet they show that 27 per cent of the women had come either directly

<sup>1</sup> Bulletin du Ministère du Travail, Paris, January-March, 1917, p. 3\*.

<sup>2</sup> Great Britain, Ministry of Munitions, Report on output of munitions in France, December, 1915, p. 9. (Cd. 8187.)

from their homes or from nonindustrial pursuits. This is a trifle over the proportion—25 per cent—of the English women in munition work in 1917 who are estimated to have come from the same sources. In 1916 a writer on the labor problem gave the following data as to the former occupations of 4,463 women employed in a shell factory at Lyons:<sup>1</sup>

|                                | Number. | Per cent. |
|--------------------------------|---------|-----------|
| Housewives and domestics ..... | 1,326   | 29.7      |
| In needlework trades.....      | 1,320   | 29.6      |
| Factory hands.....             | 690     | 15.5      |
| Clerks.....                    | 360     | 8.0       |
| Various occupations.....       | 531     | 11.9      |
| No occupation.....             | 236     | 5.3       |
| Total.....                     | 4,463   | 100.0     |

Here the percentage coming from nonindustrial or no pursuits is noticeably higher, yet these figures, too, were collected before definite efforts to enlist housewives and unemployed women had been launched. Unfortunately, no general figures on this subject are at hand, and it can not be said whether these two factories are typical of conditions in the industry as a whole.

#### HOURS.

On the 2d, 5th, and 14th of August, 1914, the minister of labor addressed circulars to the divisional inspectors, instructing them to permit overtime work and other relaxations of the factory laws in view of the national emergency. Enforcement of the factory laws should take second place, and the inspectors should devote themselves primarily to securing the most intense production possible. Prosecutions for violations of the factory laws should be undertaken only when an employer, after warning, persisted in practices plainly detrimental to the health of his force.<sup>2</sup>

These sweeping relaxations led to some abuses, and on August 22 the minister issued another circular, stating that complaints had been received that some employers were requiring unreasonably long hours from their employees, although severe unemployment prevailed in their neighborhood. In such cases the inspectors were to insist that the employer increase his force rather than his hours, excepting only when the work of national defense might be interfered with by this policy.<sup>3</sup> Thereafter the question of hours dropped out of sight for some considerable time. The English commission reported that practically all the factories ran night as well as day shifts, and that women worked the same hours as men. In some cases the three-shift system prevailed. Elsewhere the night

<sup>1</sup> *La France pays ouvrier*, by Pierre Hamp, Paris, 1916, p. 49.

<sup>2</sup> *Bulletin de l'Office du Travail*, October-December, 1914, pp. 99\*, 100\*.

<sup>3</sup> *Idem*, p. 100\*.



shift usually worked 10 hours, with one hour for the midnight break. The day shifts began at from 6 to 7 a. m., had a break of from one to two hours in the middle of the day, and stopped work at from 6 to 8 p. m., giving a working day of from 10 to 12 hours. The Saturday hours were as long as those of other days, but the commission states that "in some cases no work is done on Sundays after noon." Bad timekeeping was exceedingly rare. "The time lost by the working people does not exceed on the average 1 per cent of the total time." The commission was emphatic in stating that the workers did not appear to suffer from the long hours:

There is no evidence of fatigue from the long hours worked either on day shift or night shift. This is worthy of note, as the temperature of the shops is so high as to make the atmosphere oppressive, and even at this temperature the workpeople have rigged up screens to prevent any draft playing on them. Perhaps the best evidence of the absence of industrial fatigue is afforded by the intensity of production and the good timekeeping. On the other hand, it must be kept in view that the long break in the middle of the day, and the absence of overtime beyond the usual working hours, have no doubt an important bearing on this question.<sup>1</sup>

Other observers speak of the effect of the long dinner hour in warding off fatigue, while still others attribute this result to the spirit in which the French take their work. "They work hard," we are told, "but as soon as they stop they stop altogether and don't let the thought of their work weigh on them. They are fond of company, and they gather together at their dinner and rest periods, and sing and jest and enjoy themselves, going back to their work fresh and invigorated." Whatever the cause, the result seems unquestioned.

In 1917 some restrictions began to be imposed. On June 29 the minister of armaments issued a circular declaring that thenceforth one day of rest weekly should be given all women working in State munition factories. This rest must be given to the workers collectively, and by preference on Sunday, although if the circumstances of the case called for it, another day might be substituted. Only under very exceptional circumstances should the weekly rest be given up, and then only temporarily. July 1, 1917, another circular followed, setting the limit of a day's work for women at 10 hours, "broken by one or several periods of rest, amounting to at least one hour."<sup>2</sup>

#### NIGHT WORK.

At the time of the visit of the English commission women were not numerously employed at night, but this condition was already changing:

Not much female labor is employed on night shift. So far the tendency is to have a female day shift and male night shift. This, however, is being modified, and

<sup>1</sup> Great Britain, Ministry of Munitions, Report on output of munitions in France, December, 1915, p. 7. (Cd 8187.)

<sup>2</sup> Bulletin du Ministère du Travail, Paris, June-July, 1917, pp. 62\*, 63\*.



probably women will, to a large extent, be engaged on night shift. Where three shifts are worked, the women are of course engaged during the night.<sup>1</sup>

Thereafter the number of women employed at night increased so rapidly that six months later the Committee on Women's Work<sup>2</sup> protested against the situation, and on June 29, 1916, an official notice was issued restricting night work for women. The inspectors were instructed that the employment at night of girls under 18 was not to be permitted, and that the employment of women aged 18 to 21 might be allowed only when there was a real scarcity of older labor, and then only for limited periods. Older women might not be employed at night if they were in delicate health, or had young children whose care would prevent their resting properly by day, or were anticipating motherhood. Women on night shift should not work more than 10 hours at the outside, and the time should be less.<sup>3</sup>

The situation continued unsatisfactory, however, and on June 6, 1917, at the instance of the Committee on Women's Work, an investigation was undertaken by the factory inspectors to see how far the above directions were being enforced.<sup>4</sup> The investigation was confined to the establishments under the control of the divisional inspectors, excluding those industries, such as sugar refining, in which the employment of adult women at night is specially authorized. None of the arsenals or other establishments conducted by the Ministries of War and the Navy were included, nor were any establishments covered in which women were employed at night only temporarily or under exceptional circumstances. Thus limited the investigation included 787 establishments, in which 164,267 women and girls were employed. Of these, 58,784, or 36 per cent, were employed at night. Among these night workers were found 1,576 girls between 16 and 18 years old, employed in 165 establishments, and 519 younger than 16, employed in 60 establishments. The hours in these night shifts varied as follows:

*Number of establishments working specified hours at night.*

|                            |     |
|----------------------------|-----|
| 6 and under 8 hours.....   | 11  |
| 8 and under 9 hours.....   | 54  |
| 9 and under 10 hours.....  | 72  |
| 10 and under 11 hours..... | 565 |
| 11 and under 12 hours..... | 76  |
| 12 hours.....              | 9   |

In 163 of these establishments (21 per cent) the length of the night shift was over 10 hours. In 44 the night shift worked longer hours

<sup>1</sup> Great Britain, Ministry of Munitions, Report on output of munitions in France, December, 1915, p. 5. (Cd. 8187.)

<sup>2</sup> For scope of this committee's work see p. 126.

<sup>3</sup> Bulletin du Ministère du Travail, Paris, July-August, 1916, p. 131\*.

<sup>4</sup> A report of this investigation is given in the Bulletin du Ministère du Travail, Paris, January-February, 1918, pp. 33-37.

than the day shift, and in 38 of these the night hours exceeded both the day hours and the 10-hour limit set by the ministerial circular of June, 1916. The investigators mentioned that in 34 establishments not included in the above list the employment of women had been given up before the investigation had begun.

The investigators reported an evident effort to make night work as easy for women as possible. A number of reasons were advanced for the use of women and girls and for the hours they worked. In the region about Nancy, the employment of young girls at night was explained on the ground of the general disorganization of industry caused by the repeated bombardments. In other localities the length of the night shift was explained as due to the necessity of allowing for time lost by incursions of enemy aircraft. "These make it necessary to suspend work frequently, sometimes as often as four or five times in one night." Some employers stated that they put young people on the night shift at the request of the parents themselves. "When either the fathers or the mothers or both work on a night shift they demand that their young sons or daughters shall work on the same shift with them, saying that in this way it is easier to arrange the family life with respect to meals, sleep, and the proper oversight of the young people."

Some of the employers investigated gave up night work for women as a consequence of the representations made by the inspectors, while others diminished the number employed. In December, 1917, the committee on women's work, after long discussion of the report, expressed pleasure at the progress made in reducing the employment at night of women and young girls, but urged the abolition of all such work for females as rapidly as possible, and its immediate abolition for girls under 18. They also asked that reports on this subject should be made every three months.

February 11, 1918, the minister of armaments called upon the labor controllers to investigate and report upon the employment of women at night, directing at the same time that such work should be suppressed as quickly as practicable.<sup>1</sup> The results of this investigation are not yet available.

#### WAGES.

The question of women's wages did not come to the front for some time. In November, 1914, an official circular directed the inspectors to investigate and report on the wages paid workers on army supplies. Complaints had been received that employers who had taken contracts for such goods were paying wages below the normal standard of their districts, and the military authorities were determined, if this practice existed, to break it up.<sup>2</sup> In April, 1915, another cir-

<sup>1</sup> Bulletin des Usines de Guerre, Paris, Feb. 18, 1918.

<sup>2</sup> Bulletin de l'Office du Travail, October-December, 1914, p. 100\*.

ular declared that further contracts would be refused to employers offending in this way, and that thenceforth contracts would contain what was practically a "fair wages" clause.<sup>1</sup> Later, in October, 1915, came a ministerial circular stating that certain employers holding army contracts had been cutting piece rates as the workers gained dexterity, and declaring with convincing emphasis that this practice would not be tolerated.<sup>2</sup> These circulars, however, dealt with wages generally, and contained no reference to women's wages apart from men's. Towards the close of 1915 the British commission reported that practically all the work, except "tool-room work, setting up and floor laboring" was paid at piece-rate prices, the rates for men and women being the same. They also added that "no applications for general advances in wages have been made by the workpeople since the commencement of the War."<sup>3</sup>

Early in 1916 a ministerial circular was issued, stating that the number of women in munition work had so increased that it was necessary to lay down some general principles concerning their payment. Three classes were distinguished:

(1) Women on women's work. These must be paid the normal and current rate of the district for work of that kind.

(2) Women on work which had not been done before the War and which therefore could not be regarded as being either men's or women's. Rates for such work should be fixed on the basis of rates currently paid for the kind of work most nearly resembling it already in use.

(3) Women on work recognized as men's. If the women performed all the work they should be paid the same rates as the men, but if they had the help of men in some part of the work, or if special machinery had been installed to bring the work within their power, deductions might be made for these things. Their total earnings, however, plus what was paid to the men, or plus a fair allowance for the cost of the extra appliances, should equal the total which would be paid to men engaged on such work.

If, owing either to the increasing cost of living or to the introduction of improved machinery or methods, it should become desirable to change rates once fixed, this should be done in accordance with general principles applying equally to both sexes. Special or local circumstances might make it difficult to apply general principles without causing inconvenience or even hardship. To meet this situation, the minister declared his intention of forming a committee on women's work, before whom such cases should be brought, and whose decision, when approved by the minister, should be authoritative.<sup>4</sup>

<sup>1</sup> Bulletin du Ministère du Travail, May-June, 1915, p. 30\*.

<sup>2</sup> Idem, November-December, 1915, p. 119\*.

<sup>3</sup> Great Britain, Ministry of Munitions, Report on output of munitions in France, 1915, p. 7. (Cd. 8187.)

<sup>4</sup> Bulletin du Ministère du Travail, January-February, 1916, pp. 35\*-38\*.

Toward the end of 1916 the increasing cost of living brought about some disputes over wages, leading in some cases to strikes in munition factories, and to prevent further difficulty of this kind a presidential decree authorized the formation of permanent councils of conciliation and arbitration before which industrial disputes were required to be brought, the right both to strike and to lock out being thenceforth denied to munition workers and employers. As a part of the work of these boards, minimum rates were to be fixed in each Department, the minimum being always sufficient to permit an average worker to earn a living wage.<sup>1</sup> The basic time rates fixed for women in the Department of the Seine under this plan were lower than those for men—(men's rate, 1 franc (19.3 cents) per hour, women's, 0.75 franc (14.5 cents)—but piece rates were the same for both. By August, 1917, rates had been fixed for munition factories in all the important industrial districts, and later, as the cost of living continued to rise, it was arranged that while these rates should remain unchanged, a system of bonuses, varying according to the fluctuations in prices, should be adopted.<sup>2</sup>

There are no figures available showing how women fared under these wage regulations. One writer, describing a visit to a large munition factory at Lyon, in which about 7,000 women were employed, says that they were able to earn from 4 to 14 francs (77.2 cents to \$2.70) a day,<sup>3</sup> but there is nothing to show how these earnings compare, in real value, with those of prewar days. Another writer says that employment in munitions work "has brought about a considerable and necessary increase in women's wages. They have learned to know the value of their labor."<sup>4</sup>

#### WELFARE WORK.

In the early days of the War the public authorities tried to prevent underpayment and overwork for the munition employees by means of fair wages clauses and the supervision of the factory inspectors, but further than this they did not think it necessary to go. In 1916, when it became evident that the War was to be a longer affair than had at first been hoped, a special Committee on Women's Work was formed, to consider and give advice on questions of women's wages, on methods of securing and employing women, on the organization of canteens, crèches, and the like, and to take general oversight of matters pertaining to the health and morals of women engaged on munition work.<sup>5</sup> From this time on orders have been issued with the view of limiting night work for women, establishing

<sup>1</sup> Bulletin des Usines de Guerre, Paris, Jan. 22, 1917, p. 305.

<sup>2</sup> Idem, Aug. 27, 1917, p. 139; Dec. 31, 1917, p. 286.

<sup>3</sup> Problèmes Économiques nés de la Guerre, by André Le Bon, Paris, 1918, p. 180.

<sup>4</sup> La France pays ouvrier, by Pierre Hamp, Paris, 1916, p. 58.

<sup>5</sup> Bulletin du Ministère du Travail, Paris, June, 1916, p. 98\*.

good working conditions, and generally safeguarding them, especially the mothers and the young girls. Just as was the case in England, it was found necessary to make special provisions for the numbers of new workers brought into regions not equipped for their accommodation. Employers provided what was needed in varying degrees. Frequently they were obliged to build hostels and install canteens; some went much further. At the national establishment for manufacturing explosives at Sevran-Livry a complete village was built, "in which the workers of both sexes who had come from a distance might live in the best conditions both of hygiene and comfort."<sup>1</sup>

In many cases less ambitious efforts were made to accommodate the workers. On the ground that the difficulties arising from the immense influx of workers demanded some outside intervention, a private association was formed in the spring of 1917 to meet some of the deficiencies in these accommodations, which began by providing comfortable canteens, with rest and recreation rooms attached, for women workers in munition factories. The line of work to which the greatest attention was directed was that of providing for the care of babies whose mothers were in munition factories, and especially of seeing that the employment of the mothers did not prevent the babies from being properly nursed. From time to time ministerial circulars were issued,<sup>2</sup> setting forth the provisions which must be made in establishments working for the State in order to secure the proper care of expectant mothers, and of each mother and baby during the first year of the latter's life. In a country where even before the War the falling birth rate was a source of grave concern, there was naturally anxiety as to the effect of the employment of mothers both on the birth rate and on infantile mortality. Consequently, employers were urged to see that women had a period of rest, with pay, both before and after confinement, and to fit up nurseries, where mothers might leave their babies under good care while they were at work, and nursing rooms, where they might go to nurse their babies at suitable intervals, without loss of pay for the time thus used. With a view to making these provisions more effective, the Conseil National de Paris offered in 1917 a training course on the theory and practice of baby care for those wishing to fit themselves for positions as attendants in such day nurseries and crèches. A similar course was soon after established at Rouen. In the fall of 1917 the Committee on Women's Work was strongly urging the addition of crèches and day nurseries to all hostels erected for employees.

<sup>1</sup> Bulletin des Usines de Guerre, Paris, Nov. 5, 1917, p. 217.

<sup>2</sup> For terms of such circulars see the MONTHLY REVIEW, July, 1917, p. 39; January, 1918, p. 69; February, 1918, p. 213.



## TRAINING AND OUTPUT OF WOMEN.

The French have not, as the British have, established training courses and factories in which women are prepared to take up skilled work. At the outset they were trained, as far as any training was needed for what they did, by the men with whom they worked. "In some cases a man will teach a woman, who will then take his place and teach another woman, and thereafter be promoted and replaced as a teacher by her pupil."<sup>1</sup> Later on, when it was desired to put women to work demanding a little more skill, the same method was adopted as in England at the beginning of the war—a group of women were put on machine work, a man being told off to supervise, to keep the machines in order, to adjust and repair tools, and generally to do what the women were not capable of doing themselves. In other cases a woman would be set to work as a helper to a man; sometimes she would be assigned to him as a kind of apprentice, being expected to pick up his work as rapidly as possible. In March, 1917, the minister of armaments addressed a circular to the directors of artillery establishments, pointing out the need of training more workers for skilled operations and giving details of a plan for offering this training.<sup>2</sup> Women, especially those who were young and had shown aptitude for the work, were to be included in this training. Even before this occasional references had appeared in different ministerial circulars to women employed in work demanding both skill and training. Presumably these have been trained by individual employers for work in their own shops.

The necessity for intense production has led to the installation of automatic machinery and subdivision of labor, two conditions which are usually favorable to a good production on the part of women. Where strength is a requisite the women are said to be less effective than men, but where dexterity and swiftness count, their output is the better. A former factory inspector of France, writing of the condition of French working women, says that the system of deductions from their piece rates on account of improved devices or masculine help tends to increase their output.

At the lathes for 155-shells the women have been provided with pneumatic tackle, and for this reason get a "quarter less," while men have a higher wage because they handle the shells by hand. Yet the women succeeded in turning more shells in a day than the men. The women thus obliged to produce 125 pieces while the workmen produce only 100 for themselves continually. \* \* \* War industry has used women to speed up production. They have frequently set a new pace in factories where it was insufficient.<sup>3</sup>

<sup>1</sup> Great Britain, Ministry of Munitions, Report on output of munitions in France, December, 1915, p. 6. (Cd. 8187.)

<sup>2</sup> Bulletin du Ministère du Travail, Paris, April-May, 1917, p. 44\*; summarized in MONTHLY REVIEW, October, 1917, p. 43.

<sup>3</sup> "War and the French working woman," by Pierre Hamp, in the New Republic, June 1, 1918, p. 145.



Officially France has not, up to a recent period, displayed much interest in the question of how the women engaged in these new occupations may fare at the close of the War. There has been some discussion of the matter by various writers on economic and social problems, in which some anxiety appears as to the effect of their competition in lowering wages, but the main concern has been as to the effect on the race of their economic emancipation. When the great increase in the employment of women began some writers argued strongly against the admission of women to the new and better paid occupations, stating frankly that if a woman can earn living wages there is little chance that she will marry, or, marrying, consent to bear children.<sup>1</sup> The Government, however, does not seem to share this fear, for it has lately called on the Committee on Women's Work to investigate and report on the best way of utilizing industrially the women who will be set free as the demand for munitions declines. The committee, after taking counsel with trade-unionists, women leaders, social workers, and large employers, decided that the first step was to make a survey of the women at present employed, and of the demand likely to exist for their services at the close of the War. They have accordingly sent out to employers a questionnaire, asking each to return full details as to the number of women at present employed, with their industrial history, and also to give an outline of what plans the employer has for his own business after the War, stating how many women he will then wish to employ. The committee also asked for the opinions of those questioned as to the best steps to be taken in order that the "valuable collaboration" which women have given to munition work may be continued to the advantage of peace industries.<sup>2</sup> The results of this investigation are not yet at hand.

#### WOMAN AND CHILD LABOR IN TENNESSEE.

The activities of the Tennessee Department of Workshop and Factory Inspection, in its efforts to enforce the laws affecting employment of woman and child workers, are set forth in the fifth annual report of the department, covering the 13 months ending December 31, 1917.<sup>3</sup> The report states that although there were conclusive reasons to believe that some employers were overworking their girl employees, the difficulty has been to provide proof of this in such

<sup>1</sup> "The higher a woman's wages the greater will be her unwillingness to bear children, and the smaller, if she does have any, will be their chance of survival, since the mother in her desire to continue her earnings will as soon as possible leave her baby to the care of others and to the risks of artificial feeding. The more women in the factories, the fewer babies in the homes."—*La France pays ouvrier*, by Pierre Hamp, Paris, 1916, p. 59.

<sup>2</sup> *Bulletin des Usines de Guerre*, Paris, Mar. 11, 1918, p. 367.

<sup>3</sup> Fifth Annual Report of the Department of Workshop and Factory Inspection of Tennessee, Dec. 1, 1916, to Dec. 31, 1917. Nashville [1918]. Pp. 44-59.

form that juries, attorneys general, and judges may be convinced and prosecutions carried on successfully. It is added, however, that the only law that looks exclusively to the moral welfare of the female employees—that requiring toilets separate and apart from those in use by male employees in the same establishment—is generally observed.

During the period covered by the report 712 regular inspections were made in 543 plants employing 26,542 female workers. In 668 inspections the hours of labor were noted and in 233 of these (34.9 per cent) the hours of work were 10 to 10½ per day but not more than 57 per week, which is the limit allowed by law. In only 108 cases (16.2 per cent) were the working hours 8 per day and not more than 48 per week. In 598 cases (89.5 per cent) separate toilets were found to be installed and in satisfactory condition.

Instances of employment of women in occupations formerly open only to men are cited, but it is stated that the number so employed on December 31 was probably not more than 1,500 in the entire State.

The child-labor law of Tennessee, passed in April, 1917, went into effect simultaneously with the Federal child-labor law; that is, in September, 1917. It prohibits the employment of minors for more than 8 hours per day 6 days in the week. Under its provisions a new method for establishing the ages, etc., of children was inaugurated and placed in the hands of the superintendent of schools, thus rendering ineffective all the affidavits of parents that had theretofore sufficed to establish such facts. The department expresses the opinion that "under this new law as at present administered there is less illegal employment of children than ever before in the history of the State, and a more general voluntary compliance with the law by employers. The employment of young children in Tennessee is really passing out of existence, since, where it may at present exist—because officials have not yet been able to find it—we may conclude it will be reached and abolished during the early months of the present year."

During the 13 months ending December 31, 1917, 210 industries employing 1,788 children were inspected. In these industries 54 children were found to be under 14 years of age, all of whom were subsequently discharged. A very large proportion, however, were found to be working illegal hours, 1,663, or 93 per cent, being employed for more than 8 hours per day. Practically all of these cases were corrected by orders.

The report gives a table showing the average wages paid to 629 females and to 147 minors as reported by 622 establishments employing a total of 26,422 females and 1,784 children. The following is a summary of this table:

## CLASSIFIED WEEKLY WAGES PAID IN 1917 TO FEMALES AND MINORS IN TENNESSEE

| Item.        | Number of employees receiving each specified weekly wage. |             |             |                |                |              |               |            | Total. | Per cent receiving \$9 and under. |
|--------------|---|-------------|-------------|----------------|----------------|--------------|---------------|------------|--------|-----------------------------------|
|              | \$3 to \$4.   | \$4 to \$5. | \$5 to \$6. | \$6 to \$7.50. | \$7.50 to \$9. | \$9 to \$12. | \$12 to \$15. | Over \$15. |        |                                   |
| Females..... | 16  | 49          | 112         | 142            | 122            | 120          | 59            | 9          | 629    | 70                                |
| Minors.....  | 150   | 49          | 31          | 17             | .....          | .....        | .....         | .....      | 147    | 100                               |

<sup>1</sup> Including 13 receiving \$2 to \$3 per week.

<sup>2</sup> Receiving over \$6 per week.

## AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYEES.

### AGREEMENT FOR ADJUSTMENT OF RAILROAD LABOR DISPUTES.

The May, 1918, issue of the MONTHLY REVIEW contained (pp. 180-182) the text of an agreement for the adjustment of railroad labor disputes arrived at between the Railroad Administration, represented by its regional directors, and the various brotherhoods of employees, having for its purpose the speedy and equitable adjustment of any controversy that might arise. It provided for the appointment of the Railroad Board of Adjustment No. 1 to handle all controversies not promptly adjusted by officials and employees of any railroad operated by the Government. This agreement, which was made effective by the Director General in General Order No. 13, has been supplemented by a further understanding which provides for the creation of a committee to be known as Railroad Board of Adjustment No. 2, to consist of 12 members, 6 to be selected by the regional directors and compensated by the railroads, and 1 each by the chief executive officer of each of the 6 organizations of employees signatory to the agreement and compensated by such organization. Further than providing for the creation of this board of adjustment No. 2 and the omission of article 6, which is applicable only to the board of adjustment No. 1, the new agreement is identically the same as that published in the MONTHLY REVIEW for May, to which reference has been made. The signers to the new agreement are as follows:

A. H. Smith, C. H. Markham, and R. H. Aishton, regional directors, representing the railroads in their respective regions; and J. F. Anderson, acting president,<sup>1</sup> International Association of Machinists; Louis Weyand, acting president, International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America; G. C. Van Dornes, acting president, International Brotherhood of Blacksmiths and Helpers; F. H. Knight, acting president, Brotherhood of Railway Carmen of America; Otto E. Hoard, acting president, Amalgamated Sheet Metal Workers' International Alliance; Frank J. McNulty, president International Brotherhood of Electrical Workers.

The agreement was made effective by General Order No. 29 issued by the Director General of Railroads on May 31, 1918.

<sup>1</sup> As to the signing of this agreement by acting presidents the Director General explains:

The foregoing memorandum of an understanding has been signed for certain of the organizations by "acting president." This was made necessary by the inability of the presidents of these organizations to be present in person. The signatures of the acting presidents have been properly authorized and are accepted by the organizations as though signed by the presidents.

## EMPLOYMENT AND UNEMPLOYMENT.

### ACTIVITIES OF THE UNITED STATES EMPLOYMENT SERVICE.

The United States Employment Service on June 15 had approximately 400 offices in the Federal system, extending from coast to coast and from Canada to the Gulf. These offices comprise all Federal, State, and municipal offices which were in operation in January last, when the service was organized on a war basis, and a large number of new offices. Through the recruiting, clearing, and distributing facilities thus afforded about 6,000 workers are being placed every day on farms and in shipyards, munition plants, and other war industries. The placement rate increased 800 per cent in the period from January to May, inclusive.

#### WOMAN'S DIVISION.<sup>1</sup>

Thirty-one of the branch offices of the Employment Service now have woman's divisions, each in charge of a capable woman skilled in placement work. This is nearly three times the number at the beginning of the year. Reports from these offices periodically received at headquarters in Washington indicate very satisfactory results of the efforts being made by the Federal service to respond to calls by employers for woman labor and to place in profitable employment the thousands of women who appeal for help. During the five months ending May 31, 1918, approximately 60,000 women were given work, the following table showing the number placed each month and the per cent of increase over the preceding month:

NUMBER OF WOMEN PLACED BY THE UNITED STATES EMPLOYMENT SERVICE,  
JANUARY TO MAY, 1918, AND PER CENT OF INCREASE EACH MONTH OVER THE  
PRECEDING MONTH.

| Month.        | Number placed. | Per cent of increase over preceding month. |
|---------------|----------------|--|
| January.....  | 9,668          | .....                                      |
| February..... | 8,447          | 12.6                                       |
| March.....    | 11,118         | 31.6                                       |
| April.....    | 15,756         | 41.7                                       |
| May.....      | 14,986         | 24.9                                       |
| Total.....    | 59,975         | .....                                      |

<sup>1</sup> In this connection it is interesting to note that the Committee on Public Information, Division of Women's War Work, announces that there are now 3,378,998 women registered for service according to their specialized talents under the Woman's Committee of the Council of National Defense. The majority are registered for industries and agriculture. This census is being taken by the State committees of the council. These figures represent the incomplete registration returns from 25 States.

<sup>2</sup> Decrease.

<sup>3</sup> Incomplete report.

To acquaint those interested with the location of the branch offices of the United States Employment Service having woman's divisions, the following list is given:

| <i>State.</i>             | <i>City.</i>  |
|---------------------------|---|
| Arkansas.....             | Little Rock.  |
| California.....           | San Diego, Post Office Building.<br>San Francisco, Chronicle Building.                    |
| Delaware.....             | Wilmington.   |
| District of Columbia..... | Washington, 1410 Pennsylvania Avenue.   |
| Illinois.....             | Chicago, 845 South Wabash Avenue.   |
| Indiana.....              | Indianapolis, 225 North Pennsylvania Street.  |
| Iowa.....                 | Sioux City.   |
| Kansas.....               | Topeka.   |
| Louisiana.....            | New Orleans, City Hall.   |
| Maryland.....             | Baltimore, 408-409 Drovers-Mechanics Building.  |
| Massachusetts.....        | Boston, 53 Canal Street.  |
| Michigan.....             | Detroit, 33 Adams Avenue.   |
| Minnesota.....            | Minneapolis, 319 Second Avenue.   |
| Missouri.....             | Kansas City, 804 Grand Avenue.<br>St. Louis, 19 North Eighth Street.                      |
| Nebraska.....             | Omaha, County Courthouse.   |
| New Jersey.....           | Jersey City, Federal Building.<br>Newark, 9 Franklin Street.<br>Orange, Federal Building. |
| New York.....             | Buffalo, Federal Building.<br>New York City, 22 East Twenty-second Street.                |
| North Dakota.....         | Fargo.  |
| Ohio.....                 | Cleveland, Post Office Building.  |
| Oklahoma.....             | Enid.   |
| Pennsylvania.....         | Philadelphia, 134 South Third Street.   |
| Rhode Island.....         | Providence, 222 Federal Building.   |
| Tennessee.....            | Memphis, 32 Customhouse.  |
| Texas.....                | San Antonio.<br>Galveston.  |
| Washington.....           | Seattle.  |

#### EMPLOYMENT SERVICE TO PLACE ALL WAR LABOR.<sup>1</sup>

The United States Employment Service is being equipped to take over entirely the work of recruiting and distributing labor of all kinds for war production, and it is the one great purpose of the Service to reduce to a minimum the enormous labor turnover now existing in all branches of industry and which is particularly annoying in those industries working on war orders placed by Government departments and boards concerned with production. It is vitally essential at this time that employers be protected against the loss of valuable men through the recruiting activities of some other employer or of private employment agencies. This "stealing" of labor by one essential industry from another is perhaps the greatest

<sup>1</sup> See statement to this effect by the President, pp. 136 and 137, of this issue of the MONTHLY LABOR REVIEW.



factor in the disorganization of the labor market, and until employers cease their independent labor recruiting and turn loyally to the United States Employment Service for the help they need, which the service is amply equipped to furnish, industry will suffer a great economic loss, labor will be in a constant state of unrest, and the one supreme aim of our country to win the War will be seriously embarrassed through an unnecessary interference with war work. The complete cessation of private recruiting will increase the available common supply of labor. Director General Densmore of the Employment Service estimates that from 25 to 40 per cent <sup>1</sup> of the common labor to-day is idle because it is being so rushed from place to place as a result of private competition for labor that it is producing nothing, while our overburdened transportation system is needlessly being given more work and large sums in car fare are being wasted. Placing recruiting and distributing in the hands of the Employment Service solely will mean that labor for the first time will be stabilized so that the Government distributing machinery can get hold of it and carry on its task unhampered.

The central recruiting of all unskilled labor in the United States through the United States Employment Service has been approved by the War Labor Policies Board,<sup>2</sup> which has received reports indicating a serious shortage of unskilled labor.

The fact of steady employment of workers in any particular trade, however, does not mean that the efforts of the Employment Service are not needed. The task in that case is to see that such men, if employed in nonessential industries, are transferred to war industries and to effect such transfer with the least inconvenience to the workers themselves and without disorganizing unnecessarily the nonessential industries.

The farm labor problem is being solved by the Employment Service in cooperation with the farm help specialists of the Department of Agriculture. Operating through the branch offices in Oklahoma and Kansas and the Kansas City, Mo., office as chief distributing centers, an enormous army of laborers, many of them volunteering from the ranks of schoolboys, store clerks, business and professional men, and others who are able and willing to spare a few weeks to help harvest the crops, is moving northward through the wheat belt gathering in the grain as it ripens in each section, until the Canadian border is reached, when thousands will be directed by the Canadian officials and will move on in similar formation over the wheat fields of the Dominion. Later in the fall these men, returning from Canada, will be available for use in harvesting the corn crop in the territory over which they passed as wheat harvesters.

<sup>1</sup> See U. S. Employment Service Bulletin for June 4, 1918, p. 1.

<sup>2</sup> See pages 23 to 27 of this issue of the MONTHLY LABOR REVIEW for an account of the organization and functions of this board.

**PRESIDENT URGES EMPLOYERS TO RECRUIT ALL UNSKILLED LABOR THROUGH UNITED STATES EMPLOYMENT SERVICE.**

On June 17, 1918, the President issued a statement urging all employers engaged in war work to refrain, after August 1, 1918, from recruiting unskilled labor in any manner except through the United States Employment Service. This action by the President was taken in response to a communication, dated June 15, 1918, from the Secretary of Labor, as Labor Administrator, who suggested the necessity of recognizing that "one centralized national agency is demanded for recruiting the workers for the Nation's war needs" and that "the United States Employment Service of this department is the agency appropriate for this task. \* \* \* It will mean, of course, that thereafter all private enterprise in securing labor on a substantial scale will be prohibited by the full authority at the disposal of the Government." The Secretary was prompted to make this recommendation to the President by the action of the War Labor Policies Board,<sup>1</sup> which had adopted a resolution declaring that "all recruiting of industrial labor for public or private work connected with the War shall be conducted through or in accordance with methods authorized by the United States Employment Service," and that "the full power of the Government shall be exercised through such agency to supply all the labor requirements of war industry and by means of volunteer recruitment to transfer men to such extent as may be necessary from nonwar work to war work."

**THE PRESIDENT'S STATEMENT.**

For more than a year it has been our pride that not our armies and navies only, but our whole people is engaged in a righteous war. We have said repeatedly that industry plays as essential and honorable a rôle in this great struggle as do our military armaments. We all recognize the truth of this, but we must also see its necessary implications—namely, that industry, doing a vital task for the Nation, must receive the support and assistance of the Nation. We must recognize that it is a natural demand, almost a right, of anyone serving his country, whether employer or employee, to know that his service is being used in the most effective manner possible. In the case of labor this wholesome desire has been not a little thwarted owing to the changed conditions which war has created in the labor market.

There has been much confusion as to essential products. There has been ignorance of conditions—men have gone hundreds of miles in search of a job and wages which they might have found at their doors. Employers holding Government contracts of the highest importance have competed for workers with holders of similar contracts, and even with the Government itself, and have conducted expensive campaigns for recruiting labor in sections where the supply of labor was already exhausted. California draws its unskilled labor from as far east as Buffalo, and New York from as far west as the Mississippi. Thus labor has been induced to move fruitlessly from one place to another, congesting the railways and losing both time and money.

Such a condition is unfair alike to employer and employee, but most of all to the Nation itself, whose existence is threatened by any decrease in its pro-

<sup>1</sup> For an account of the organization and functions of this board, see pages 23 to 27.

ductive power. It is obvious that this situation can be clarified and equalized by a central agency—the United States Employment Service of the Department of Labor, with the counsel of the War Labor Policies Board—as the voice of all the industrial agencies of the Government. Such a central agency must have sole direction of all recruiting of civilian workers in war work; and, in taking over this great responsibility, must at the same time have power to assure to essential industry an adequate supply of labor, even to the extent of withdrawing workers from nonessential production. It must also protect labor from insincere and thoughtless appeals made to it under the plea of patriotism, and assure it that when it is asked to volunteer in some priority industry the need is real.

Therefore, I, Woodrow Wilson, President of the United States of America, solemnly urge all employers engaged in war work to refrain after August 1, 1918, from recruiting unskilled labor in any manner except through this central agency. I urge labor to respond as loyally as heretofore to any calls issued by this agency for voluntary enlistment in essential industry. And I ask them both alike to remember that no sacrifice will have been in vain, if we are able to prove beyond all question that the highest and best form of efficiency is the spontaneous cooperation of a free people.

#### 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 May, 1918, and, in cases where figures are available, for the corresponding month in 1917. Figures are given from 184 public employment offices in 39 States, Federal employment offices in 31 States, Federal-State employment offices in 12 States, Federal-State-municipal employment offices in 3 States, Federal-State-county-municipal employment offices in 3 States, Federal-municipal employment offices in 2 States, State employment offices in 12 States, State-municipal employment offices in 1 State, and municipal employment offices in 4 States. Figures from two Canadian employment offices are also given.

##### OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918.

##### UNITED STATES.

| 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.  |            |                                |            |                   |            |       |
|   | May, 1917.                   | May, 1918. | May, 1917.                      | May, 1918. | May, 1917.                 | May, 1918. | May, 1917. | May, 1918. | May, 1917.                     | May, 1918. | May, 1917.        | May, 1918. |       |
| <i>Alabama.</i>                               |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |       |
| Birmingham (Federal).....                     |                              | 310        |                                 | 3,605      |                            | 11,096     |            | (2)        |                                |            | 866               |            | 735   |
| Mobile (Federal).....                         | (2)                          | 106        | (2)                             | 971        | (2)                        | 1,505      | (2)        | (2)        | (2)                            |            | 334               | (2)        | 334   |
| Total.....                                    |                              |            |                                 |            |                            |            |            |            | (2)                            |            | 1,200             | (2)        | 1,069 |
| <i>Arizona.</i>                               |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |       |
| Phoenix (Federal-State-county-municipal)..... |                              | 431        |                                 | 2,776      |                            | 227        |            | 200        |                                |            | 714               |            | 700   |
| Yuma (Federal).....                           |                              | 41         |                                 | 101        |                            | 189        |            | (2)        |                                |            | 44                |            | 26    |
| Total.....                                    |                              |            |                                 |            |                            |            |            |            |                                |            | 758               |            | 726   |

Number applying for work.

Not reported.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

| State, city, and kind of office.            | Applica- tions from employers. |            | Persons asked for by em- ployers. |            | Persons applying for work. |            |            |            | Persons re- ferred to positions. |            | Positions filled. |            |
|---|--------------------------------|------------|-----------------------------------|------------|----------------------------|------------|------------|------------|----------------------------------|------------|-------------------|------------|
|   | May, 1917.                     | May, 1918. | May, 1917.                        | May, 1918. | New regis- trations.       |            | Renewals.  |            | May, 1917.                       | May, 1918. | May, 1917.        | May, 1918. |
|   |                                |            |                                   |            | May, 1917.                 | May, 1918. | May, 1917. | May, 1918. |                                  |            |                   |            |
| <i>Arkansas.</i>                            |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Fort Smith (Federal).....                   |                                | 17         |                                   | 220        |                            | 1 220      |            | (*)        |                                  | 202        |                   | 84         |
| Helena (Federal).....                       |                                | 5          |                                   | 55         |                            | 1 55       |            | (*)        |                                  | 31         |                   | 27         |
| Jonesboro (Federal).....                    |                                | 52         |                                   | 292        |                            | 1 151      |            | (*)        |                                  | 91         |                   | 91         |
| Little Rock (Federal).....                  |                                | 223        |                                   | 7,020      |                            | 1,541      |            | (*)        | 2,525                            |            |                   | 2,492      |
| Pine Bluff (Federal).....                   |                                | 29         |                                   | 1,000      |                            | 1 408      |            | (*)        |                                  | 145        |                   | 32         |
| Texarkana (Federal).....                    |                                | 23         |                                   | 458        |                            | 1 152      |            | (*)        |                                  | 77         |                   | 5          |
| Total.....                                  |                                |            |                                   |            |                            |            |            |            |                                  | 3,071      |                   | 2,731      |
| <i>California.</i>                          |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Fresno (State).....                         |                                | 575        |                                   | 1,134      |                            | 614        |            | (*)        |                                  | 1,226      |                   | 1,185      |
| Hayward (Federal).....                      |                                | (*)        |                                   | 24         |                            | 1 2        |            | (*)        |                                  | 2          |                   | 1          |
| Hollister (Federal).....                    |                                | (*)        |                                   | 45         |                            | 1 38       |            | (*)        |                                  | 31         |                   | 21         |
| Los Angeles (Federal- State-municipal)..... | 3,134                          | 4,550      | 4,896                             | 7,937      | 2,678                      | 2,933      | (*)        | (*)        | 4,744                            | 6,838      | 3,977             | 5,074      |
| Modesto (Federal).....                      |                                | 490        |                                   | 490        |                            | 1 490      |            | (*)        |                                  | 490        |                   | 490        |
| New Castle (Federal).....                   |                                | 4          |                                   | 15         |                            | 1 13       |            | (*)        |                                  | 13         |                   | 12         |
| Oakland (Federal-State).....                | 1,139                          | 2,021      | 1,785                             | 4,584      | 644                        | 1,628      | 675        | (*)        | 1,558                            | 3,423      | 1,311             | 2,693      |
| Sacramento (Federal).....                   |                                | 595        |                                   | 2,166      |                            | 907        |            | (*)        |                                  | 1,537      |                   | 1,465      |
| Sacramento (State).....                     | 499                            | 672        | 1,952                             | 2,262      | 747                        | 989        | 447        | (*)        | 1,173                            | 1,581      | 1,126             | 1,500      |
| San Diego (Federal).....                    | 511                            | 994        | 1,184                             | 1,590      | 972                        | 588        | (*)        | (*)        | 1,094                            | 1,320      | 888               | 1,055      |
| Salinas (Federal).....                      |                                | 1          |                                   | 2          |                            | 1 3        |            | (*)        |                                  | 2          |                   | 2          |
| San Francisco (State).....                  | 2,385                          | 3,488      | 5,100                             | 7,315      | 2,805                      | (*)        | 1,630      | (*)        | 4,913                            | 7,121      | 3,509             | 5,852      |
| San Francisco (Federal).....                | (*)                            | 1,179      | (*)                               | 4,921      | (*)                        | 1 3,475    | (*)        | (*)        | (*)                              | 3,057      | (*)               | 2,617      |
| San Jose (Federal-State).....               |                                | 772        |                                   | 1,072      |                            | 556        |            | (*)        |                                  | 883        |                   | 601        |
| Total.....                                  |                                |            |                                   |            |                            |            |            |            | 13,482                           | 27,524     | 10,811            | 22,568     |
| <i>Colorado.</i>                            |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Colorado Springs (Federal-State).....       | 644                            | 607        | 644                               | 607        | 1 570                      | 1 567      | (*)        | (*)        | (*)                              | (*)        | 535               | 524        |
| Denver No. 1 (Federal-State).....           | 808                            | 524        | 808                               | 524        | 1 793                      | 1 548      | (*)        | (*)        | (*)                              | (*)        | 610               | 478        |
| Denver No. 2 (Federal-State).....           | 774                            | 1,782      | 774                               | 1,782      | 1 646                      | 1 626      | (*)        | (*)        | (*)                              | (*)        | 541               | 474        |
| Grand Junction (Federal-State).....         |                                | 119        |                                   | 119        |                            | 1 41       |            | (*)        |                                  | (*)        |                   | 41         |
| Pueblo (Federal-State).....                 | 517                            | 616        | 517                               | 616        | 1 533                      | 1 600      | (*)        | (*)        | (*)                              | (*)        | 518               | 572        |
| Total.....                                  |                                |            |                                   |            |                            |            |            |            | (*)                              | (*)        | 2,204             | 2,089      |
| <i>Connecticut.</i>                         |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Bridgeport (Federal-State).....             | (*)                            | (*)        | 813                               | 1,181      | 1,008                      | 1,104      | (*)        | (*)        | (*)                              | (*)        | 734               | 982        |
| Hartford (State).....                       | (*)                            | (*)        | 1,416                             | 1,907      | 1,762                      | 1,951      | (*)        | (*)        | (*)                              | (*)        | 1,201             | 1,464      |
| Hew Haven (State).....                      | (*)                            | (*)        | 1,102                             | 1,100      | 1,440                      | 1,087      | (*)        | (*)        | (*)                              | (*)        | 947               | 928        |
| Norwich (State).....                        | (*)                            | (*)        | 338                               | 354        | 1 398                      | 1 424      | (*)        | (*)        | (*)                              | (*)        | 300               | 348        |
| Waterbury (State).....                      | (*)                            | (*)        | 189                               | 381        | 1 250                      | 1 458      | (*)        | (*)        | (*)                              | (*)        | 144               | 325        |
| Total.....                                  |                                |            |                                   |            |                            |            |            |            | (*)                              | (*)        | 3,326             | 4,047      |
| <i>Delaware.</i>                            |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Wilmington (Federal).....                   | 28                             | 77         | 55                                | 5 000      | 1 290                      | 1,696      | (*)        | (*)        | 210                              | 1,533      | 205               | 1,450      |
| <i>Georgia.</i>                             |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Atlanta (Federal-State).....                |                                | 242        |                                   | 10,113     |                            | 1 2,561    |            | (*)        |                                  | 2,561      |                   | (*)        |
| <i>Idaho.</i>                               |                                |            |                                   |            |                            |            |            |            |                                  |            |                   |            |
| Moscow (Federal).....                       | 17                             | 20         | 17                                | 150        | 1 15                       | 1 28       | (*)        | (*)        | 15                               | 28         | 15                | 28         |
| St. Anthony (Federal).....                  |                                | 47         |                                   | 181        |                            | 1 175      |            | (*)        |                                  | 137        |                   | 137        |
| Total.....                                  |                                |            |                                   |            |                            |            |            |            | 15                               | 165        | 15                | 165        |

\*Number applying for work.

\*Not reported.

\*Estimated.

\*Temporary office.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

| State, city, and kind of office.    | Applications from employers. |            | Persons asked for by employers. |            | Persons applying for work. |            |            |            | Persons referred to positions. |            | Positions filled. |            |        |
|-------------------------------------|------------------------------|------------|---------------------------------|------------|----------------------------|------------|------------|------------|--------------------------------|------------|-------------------|------------|--------|
|                                     | May, 1917.                   | May, 1918. | May, 1917.                      | May, 1918. | New registrations.         |            | Renewals.  |            | May, 1917.                     | May, 1918. | May, 1917.        | May, 1918. |        |
|                                     |                              |            |                                 |            | May, 1917.                 | May, 1918. | May, 1917. | May, 1918. |                                |            |                   |            |        |
| <i>Illinois.</i>                    |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Aurora (Federal).....               |                              | 145        |                                 | 644        |                            | 1 430      |            | (2)        |                                |            | 372               |            | 297    |
| Cairo (Federal).....                |                              | 29         |                                 | 498        |                            | 1 160      |            | (2)        |                                |            | 127               |            | 105    |
| Bloomington (Federal-State).....    |                              | 237        |                                 | 313        |                            | 1 261      |            | (2)        |                                |            | 261               |            | 186    |
| Chicago (State).....                | 6,026                        | 4,112      | 15,675                          | 17,190     | 16,197                     | 6,634      | 1,347      | 8,534      | 16,580                         | 14,863     | 13,266            |            | 12,316 |
| Danville (Federal-State).....       |                              | 198        |                                 | 911        |                            | 1 378      |            | (2)        |                                |            | 355               |            | 320    |
| Decatur (Federal-State).....        |                              | 227        |                                 | 388        |                            | 1 90       |            | 29         |                                |            | 189               |            | 167    |
| East St. Louis (Federal-State)..... |                              | 514        | 1,200                           | 1,511      | 590                        | 433        | 272        | 688        | 832                            | 1,080      | 786               |            | 1,048  |
| Galesburg (Federal).....            |                              | 127        |                                 | 1,558      |                            | 1 396      |            | (2)        |                                |            | 205               |            | 184    |
| Joliet (Federal).....               |                              | 160        |                                 | 441        |                            | 371        |            | (2)        |                                |            | 524               |            | 294    |
| Quincy (Federal).....               |                              | 64         |                                 | 1,311      |                            | 1 118      |            | (2)        |                                |            | 38                |            | 21     |
| Rockford (Federal-State).....       | 834                          | 993        | 1,259                           | 1,536      | 688                        | 1,021      | 333        | 299        | 912                            | 1,171      | 859               |            | 1,095  |
| Total.....                          |                              |            |                                 |            |                            |            |            |            | 18,324                         | 19,185     | 14,911            |            | 16,033 |
| <i>Indiana.</i>                     |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Evansville (State).....             | 132                          | 371        | 414                             | 846        | 489                        | (2)        | 72         | (2)        | 448                            | 680        | 410               |            | 669    |
| Indianapolis (State).....           | 1,581                        | 823        | 1,513                           | 870        | 1,537                      | 801        | 24         | 69         | 1,517                          | 814        | 1,517             |            | 810    |
| South Bend (State).....             | 157                          | 190        | 562                             | 351        | 556                        | 160        | 20         | 78         | 540                            | 238        | 514               |            | 226    |
| Terre Haute (State).....            | 153                          | 427        | 315                             | 495        | 219                        | 406        | 43         | 89         | 262                            | 495        | 246               |            | 495    |
| Total.....                          |                              |            |                                 |            |                            |            |            |            | 2,767                          | 2,227      | 2,687             |            | 2,200  |
| <i>Iowa.</i>                        |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Cedar Rapids (Federal).....         |                              | 117        |                                 | 767        |                            | 1 532      |            | (2)        |                                |            | 515               |            | 267    |
| Davenport (Federal-State).....      |                              | 295        |                                 | 976        |                            | 543        |            | 122        |                                |            | 575               |            | 363    |
| Des Moines (Federal-State).....     | 110                          | 414        | 301                             | 1,471      | 362                        | 1 889      | 16         | (2)        | 289                            | 841        | 180               |            | 486    |
| Mason City (Federal).....           |                              | 104        |                                 | 386        |                            | 1 210      |            | (2)        |                                |            | 204               |            | 159    |
| Ottumwa (Federal).....              |                              | 211        |                                 | 284        |                            | 1 297      |            | (2)        |                                |            | 237               |            | 175    |
| Sioux City (Federal).....           |                              | 368        |                                 | 961        |                            | 1 441      |            | (2)        |                                |            | 333               |            | 264    |
| Waterloo (Federal).....             |                              | 356        |                                 | 599        |                            | 1 562      |            | (2)        |                                |            | 417               |            | 371    |
| Total.....                          |                              |            |                                 |            |                            |            |            |            | 289                            | 3,122      | 180               |            | 2,085  |
| <i>Kansas.</i>                      |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Abilene (Federal).....              |                              | 10         |                                 | 11         |                            | 1 38       |            | (2)        |                                |            | 4                 |            | 4      |
| Dodge City (Federal).....           |                              | 28         |                                 | 25         |                            | 1 48       |            | (2)        |                                |            | 19                |            | 19     |
| Hutchinson (Federal).....           |                              | 89         |                                 | 127        |                            | 1 265      |            | (2)        |                                |            | 107               |            | 99     |
| Parsons (Federal).....              |                              | 25         |                                 | 56         |                            | 1 54       |            | (2)        |                                |            | 31                |            | 25     |
| Topeka (Federal-State).....         | 185                          | 308        | 211                             | 1,050      | 230                        | 1 407      | 10         | (2)        | 220                            | 269        | 198               |            | 196    |
| Wichita (Federal).....              |                              | 367        |                                 | 635        |                            | 1 242      |            | (2)        |                                |            | 608               |            | 545    |
| Total.....                          |                              |            |                                 |            |                            |            |            |            | 220                            | 1,038      | 198               |            | 888    |
| <i>Kentucky.</i>                    |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Louisville (State).....             | 188                          | 90         | 188                             | 103        | 1 239                      | 1 104      | (2)        | (2)        | 188                            | 90         | 188               |            | 90     |
| <i>Louisiana.</i>                   |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| New Orleans (Federal-State).....    | 55                           | 263        | 220                             | 4,897      | 1 318                      | 187        | (2)        | (2)        | 315                            | 3,027      | 106               |            | 2,822  |
| <i>Maryland.</i>                    |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Baltimore (Federal).....            | 48                           | 521        | 368                             | 7,942      | 1 403                      | 18,608     | (2)        | (2)        | 241                            | 8,082      | 241               |            | 6,928  |
| <i>Massachusetts.</i>               |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |        |
| Boston (Federal).....               | 27                           | 1,107      | 480                             | 9,609      | 1 525                      | 19,165     | (2)        | (2)        | 115                            | 6,101      | 73                |            | 5,614  |
| Boston (State).....                 | 2,474                        | 2,718      | 2,872                           | 3,296      | 1,609                      | 1,727      | (2)        | (2)        | 3 4,167                        | 3 3,887    | 1,824             |            | 1,958  |
| Springfield (State).....            | 1,140                        | 1,074      | 1,473                           | 1,568      | 1 474                      | 1 470      | (2)        | (2)        | 3 1,657                        | 3 1,642    | 1,084             |            | 1,008  |
| Worcester (State).....              | 1,171                        | 1,174      | 1,461                           | 1,518      | 1 645                      | 1 570      | (2)        | (2)        | 3 1,529                        | 3 1,492    | 876               |            | 836    |
| Total.....                          |                              |            |                                 |            |                            |            |            |            | 7,468                          | 13,122     | 3,857             |            | 9,416  |

<sup>1</sup> Number applying for work.<sup>2</sup> Not reported.<sup>3</sup> Number of offers of positions.



OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

| State, city, and kind of office.            | Applications from employers. |                  | Persons asked for by employers. |                  | Persons applying for work. |            |                  |                  | Persons referred to positions. |            | Positions filled. |            |
|---|------------------------------|------------------|---------------------------------|------------------|----------------------------|------------|------------------|------------------|--------------------------------|------------|-------------------|------------|
|   | May, 1917.                   | May, 1918.       | May, 1917.                      | May, 1918.       | New registrations.         |            | Renewals.        |                  | May, 1917.                     | May, 1918. | May, 1917.        | May, 1918. |
|   |                              |                  |                                 |                  | May, 1917.                 | May, 1918. | May, 1917.       | May, 1918.       |                                |            |                   |            |
| <i>Michigan.</i>                            |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Battle Creek (State).....                   | 97                           | 200              | 190                             | 610              | 1 161                      | 500        | ( <sup>2</sup> ) | 110              | 156                            | 487        | 156               | 487        |
| Bay City (State).....                       | 68                           | 81               | 372                             | 256              | 1 96                       | 218        | ( <sup>2</sup> ) | 38               | 87                             | 85         | 87                | 85         |
| Detroit (Federal).....                      | 60                           | 3,171            | 382                             | 8,321            | 1 366                      | 3,753      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 366                            | 3,193      | 366               | 2,323      |
| Detroit (State).....                        | 2,061                        | 1,018            | 6,321                           | 7,763            | 6,184                      | 7,596      | ( <sup>2</sup> ) | 167              | 6,184                          | 7,763      | 6,184             | 7,736      |
| Flint (State).....                          | 812                          | 281              | 812                             | 485              | ( <sup>2</sup> )           | 410        | ( <sup>2</sup> ) | 94               | 812                            | 415        | 812               | 405        |
| Grand Rapids (Federal).....                 |                              | 35               |                                 | 75               |                            | 1 48       | ( <sup>2</sup> ) |                  |                                | 22         |                   | 13         |
| Grand Rapids (State).....                   | 675                          | 777              | 1,032                           | 1,629            | 1 004                      | 1,325      | ( <sup>2</sup> ) | 315              | 990                            | 1,557      | 990               | 1,512      |
| Jackson (State).....                        | 502                          | 645              | 1,042                           | 1,149            | 1 063                      | 654        | ( <sup>2</sup> ) | 236              | 1,031                          | 863        | 1,019             | 826        |
| Kalamazoo (State).....                      | 412                          | 391              | 415                             | 527              | 1 425                      | 550        | ( <sup>2</sup> ) | 76               | 412                            | 478        | 412               | 353        |
| Lansing (State).....                        | 70                           | 122              | 292                             | 911              | 1 128                      | 704        | ( <sup>2</sup> ) | 131              | 128                            | 835        | 128               | 835        |
| Muskegon (State).....                       | 86                           | 92               | 223                             | 624              | 1 164                      | 206        | ( <sup>2</sup> ) | 48               | 160                            | 204        | 139               | 188        |
| Saginaw (State).....                        | 129                          | 181              | 724                             | 575              | 1 618                      | 270        | ( <sup>2</sup> ) | 69               | 618                            | 339        | 618               | 339        |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | 10,944                         | 16,241     | 10,911            | 15,102     |
| <i>Minnesota.</i>                           |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Duluth (State).....                         | ( <sup>2</sup> )             | 2,548            | ( <sup>2</sup> )                | ( <sup>2</sup> ) | ( <sup>2</sup> )           | 1,068      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 1,432      | 2,161             | 1,336      |
| Minneapolis (Federal).....                  | 10                           | 1,101            | 10                              | 2,028            | 189                        | 2,114      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 9                              | 1,553      | 9                 | 1,354      |
| Minneapolis (State).....                    | ( <sup>2</sup> )             | 1,569            | ( <sup>2</sup> )                | 2,558            | ( <sup>2</sup> )           | 2,073      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 2,051      | 2,428             | 1,911      |
| St. Paul (Federal).....                     |                              | 20               |                                 | 418              |                            | 1 217      | ( <sup>2</sup> ) |                  |                                | 217        |                   | 186        |
| St. Paul (State).....                       | ( <sup>2</sup> )             | 1,444            | ( <sup>2</sup> )                | ( <sup>2</sup> ) | ( <sup>2</sup> )           | 1,359      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 1,361      | 1,708             | 1,355      |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | 9                              | 6,614      | 6,306             | 6,142      |
| <i>Mississippi.</i>                         |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Gulfport (Federal).....                     |                              | 4                |                                 | 223              | 1 74                       | 1 169      | ( <sup>2</sup> ) | ( <sup>2</sup> ) |                                | 130        |                   | 98         |
| <i>Missouri.</i>                            |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Kansas City (Federal-State).....            | 1,117                        | 1,464            | 2,091                           | 7,773            | 1,228                      | 6,270      | 1,259            | ( <sup>2</sup> ) | 2,487                          | 5,867      | 2,296             | 5,244      |
| St. Joseph (Federal).....                   |                              | 226              |                                 | 605              |                            | 1 598      | ( <sup>2</sup> ) |                  |                                | 598        |                   | 583        |
| St. Joseph (State).....                     | 678                          | ( <sup>2</sup> ) | 6,378                           | 1,733            | 1,040                      | 1,164      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 1,040                          | 1,164      | 1,037             | 1,164      |
| St. Louis (Federal-State).....              | 312                          | 524              | 893                             | 7,218            | 1 605                      | 5,167      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 463                            | 4,960      | 457               | 4,756      |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | 3,990                          | 12,589     | 3,790             | 11,747     |
| <i>Montana.</i>                             |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Missoula (Federal).....                     |                              | 13               |                                 | 22               |                            | 1 42       | ( <sup>2</sup> ) |                  |                                | 11         |                   | 9          |
| Helena (Federal).....                       | 2                            | 27               | 2                               | 67               | 1 2                        | 150        | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 39         | ( <sup>2</sup> )  | 39         |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | ( <sup>2</sup> )               | 50         | ( <sup>2</sup> )  | 48         |
| <i>Nebraska.</i>                            |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Lincoln (Federal).....                      |                              | 423              |                                 | 467              |                            | 1 465      | ( <sup>2</sup> ) |                  |                                | 465        |                   | 462        |
| Omaha (Federal-State-county-municipal)..... | 927                          | 1,116            | 1,539                           | 6,697            | 974                        | 3,139      | 547              | ( <sup>2</sup> ) | 1,422                          | 2,841      | 1,158             | 2,782      |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | 1,422                          | 3,306      | 1,158             | 3,244      |
| <i>Nevada.</i>                              |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Reno (Federal).....                         | 176                          | 24               | 418                             | 89               | 1 480                      | 1 71       | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 1337                           | 71         | 337               | 71         |
| <i>New Jersey.</i>                          |                              |                  |                                 |                  |                            |            |                  |                  |                                |            |                   |            |
| Camden (Federal).....                       |                              | 69               |                                 | 574              |                            | 1 283      |                  |                  |                                | 272        |                   | 1,517      |
| Jersey City (Federal-State).....            | ( <sup>2</sup> )             | 206              | ( <sup>2</sup> )                | 3,015            | ( <sup>2</sup> )           | 1 013      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 866        | ( <sup>2</sup> )  | 792        |
| Newark (Federal-State-municipal).....       | ( <sup>2</sup> )             | 4,136            | ( <sup>2</sup> )                | 14,356           | ( <sup>2</sup> )           | 12,568     | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 8,978      | ( <sup>2</sup> )  | 8,218      |
| Orange (Federal-State).....                 | ( <sup>2</sup> )             | 482              | ( <sup>2</sup> )                | 784              | ( <sup>2</sup> )           | 255        | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 407        | ( <sup>2</sup> )  | 373        |
| Trenton (Federal).....                      |                              | 527              |                                 | 800              |                            | 1 375      | ( <sup>2</sup> ) | ( <sup>2</sup> ) |                                | 311        |                   | 711        |
| Total.....                                  |                              |                  |                                 |                  |                            |            |                  |                  | ( <sup>2</sup> )               | 10,834     | ( <sup>2</sup> )  | 11,611     |

<sup>1</sup> Number applying for work.<sup>2</sup> Not reported.<sup>3</sup> Estimated.



## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918.—Continued.

## UNITED STATES—Continued.

| State, city, and kind of office.              | Applications from employers. |            | Persons asked for by employers. |            | Persons applying for work. |            |            |            | Persons referred to positions. |            | Positions filled. |            |
|---|------------------------------|------------|---------------------------------|------------|----------------------------|------------|------------|------------|--------------------------------|------------|-------------------|------------|
|   | May, 1917.                   | May, 1918. | May, 1917.                      | May, 1918. | New registrations—         |            | Renewals.  |            | May, 1917.                     | May, 1918. | May, 1917.        | May, 1918. |
|   |                              |            |                                 |            | May, 1917.                 | May, 1918. | May, 1917. | May, 1918. |                                |            |                   |            |
| <i>New York.</i>                              |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |
| Albany (Federal-State).....                   | 782                          | 1,128      | 1,374                           | 1,784      | 948                        | 842        | 350        | 240        | 1,366                          | 1,224      | 904               | 796        |
| Buffalo (Federal).....                        | 1,617                        | 394        | 2,437                           | 5,253      | 2,105                      | 1,765      | (2)        | (2)        | 2,674                          | 1,753      | 2,134             | 1,683      |
| Buffalo (State).....                          | 1,646                        | 2,416      | 2,475                           | 7,992      | 2,027                      | 3,221      | 194        | 221        | 2,963                          | 4,258      | 2,170             | 3,305      |
| New York City (Federal).....                  | 5,401                        | 1,165      | 6,517                           | 39,176     | 12,036                     | 23,499     | (2)        | (2)        | 6,374                          | 20,176     | 4,357             | 16,913     |
| New York City (State).....                    | 2,993                        | 3,647      | 2,852                           | 6,544      | 1,625                      | 3,267      | 889        | 1,036      | 2,869                          | 4,780      | 1,731             | 3,016      |
| New York City (municipal).....                | 1,951                        | 2,082      | 3,149                           | 2,378      | 3,391                      | 1,074      | 2,378      | 1,761      | 4,484                          | 2,578      | 2,236             | 1,840      |
| Rochester (State).....                        | 1,786                        | 2,414      | 2,526                           | 5,103      | 1,234                      | 1,924      | 759        | 671        | 2,370                          | 2,534      | 1,343             | 1,444      |
| Syracuse (Federal-State).....                 | 1,554                        | 1,724      | 2,209                           | 2,451      | 1,281                      | 1,042      | 268        | 267        | 1,938                          | 1,759      | 1,448             | 1,422      |
| Total.....                                    |                              |            |                                 |            |                            |            |            |            | 25,038                         | 39,062     | 16,323            | 30,419     |
| <i>North Dakota.</i>                          |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |
| Fargo (Federal).....                          |                              | 448        |                                 | 538        |                            | 1,555      |            | (2)        |                                | 486        |                   | 470        |
| <i>Ohio.</i>                                  |                              |            |                                 |            |                            |            |            |            |                                |            |                   |            |
| Akron (State-municipal).....                  | (2)                          | (2)        | 2,651                           | 3,510      | 991                        | 1,072      | 1,950      | 2,025      | 2,402                          | 2,747      | 1,993             | 2,336      |
| Athens (State-municipal).....                 | (2)                          | (2)        | 50                              | 52         | 53                         | 20         | 2          | 49         | 21                             | 52         | 11                | 50         |
| Canton (State-municipal).....                 | (2)                          | (2)        | 401                             | 758        | 226                        | 588        | 59         | 255        | 194                            | 687        | 89                | 485        |
| Chillicothe (State-municipal).....            | (2)                          | (2)        | 443                             | 713        | 290                        | 477        | 61         | 250        | 326                            | 650        | 213               | 595        |
| Cincinnati (State-municipal).....             | (2)                          | (2)        | 2,813                           | 3,298      | 1,827                      | 1,967      | 3,199      | 2,442      | 2,597                          | 2,567      | 1,867             | 2,133      |
| Cleveland (Federal).....                      | 26                           | 132        | 53                              | 1,543      | 1,162                      | 1,813      | (2)        | (2)        | 2,507                          | 763        | 21                | 595        |
| Cleveland (State-municipal).....              | (2)                          | (2)        | 9,029                           | 11,130     | 3,134                      | 3,169      | 9,795      | 7,137      | 8,048                          | 9,438      | 6,547             | 7,972      |
| Columbus (State-municipal).....               | (2)                          | (2)        | 3,307                           | 5,120      | 873                        | 1,736      | 2,912      | 3,544      | 2,943                          | 4,410      | 2,447             | 3,409      |
| Dayton (State-municipal).....                 | (2)                          | (2)        | 1,558                           | 3,024      | 940                        | 1,340      | 1,744      | 1,240      | 1,358                          | 2,306      | 1,133             | 2,161      |
| Hamilton (State-municipal).....               | (2)                          | (2)        | 202                             | 295        | 106                        | 115        | 36         | 45         | 73                             | 152        | 47                | 131        |
| Lima (State-municipal).....                   | (2)                          | (2)        | 533                             | 865        | 319                        | 513        | 48         | 307        | 207                            | 726        | 163               | 590        |
| Mansfield (State-municipal).....              | (2)                          | (2)        | 65                              | 1,372      | 119                        | 272        | (2)        | 157        | 7                              | 400        | (2)               | 345        |
| Marietta (State-municipal).....               | (2)                          | (2)        | 169                             | 253        | 103                        | 110        | 33         | 93         | 106                            | 175        | 56                | 142        |
| Marion (State-municipal).....                 | (2)                          | (2)        | 332                             | 716        | 224                        | 437        | 135        | 237        | 202                            | 514        | 102               | 442        |
| Portsmouth (State-municipal).....             | (2)                          | (2)        | 654                             | 765        | 125                        | 268        | 45         | 440        | 216                            | 617        | 56                | 482        |
| Sandusky (State-municipal).....               | (2)                          | (2)        | 282                             |            |                            | 156        |            | 58         |                                | 174        |                   | 206        |
| Springfield (State-municipal).....            | (2)                          | (2)        | 357                             | 517        | 328                        | 261        | 88         | 335        | 183                            | 432        | 98                | 283        |
| Stenvenville (State-municipal).....           | (2)                          | (2)        | 404                             | 763        | 159                        | 412        | 30         | 308        | 148                            | 652        | 102               | 518        |
| Tiffin (State-municipal).....                 | (2)                          | (2)        | 381                             | 294        | 152                        | 235        | 33         | 115        | 127                            | 323        | 102               | 253        |
| Toledo (State-municipal).....                 | (2)                          | (2)        | 3,602                           | 4,977      | 1,307                      | 1,582      | 3,340      | 3,607      | 3,238                          | 4,215      | 2,656             | 5,312      |
| Washington Court House (State-municipal)..... | (2)                          | (2)        | 106                             | 90         | 115                        | 70         | 16         | 36         | 65                             | 82         | 50                | 58         |
| Youngstown (State-municipal).....             | (2)                          | (2)        | 1,773                           | 2,241      | 940                        | 726        | 1,323      | 1,310      | 1,680                          | 1,853      | 1,550             | 1,747      |
| Zanesville (State-municipal).....             | (2)                          | (2)        | 124                             | 218        | 132                        | 117        | 14         | 129        | 85                             | 230        | 35                | 179        |
| Total.....                                    |                              |            |                                 |            |                            |            |            |            | 24,313                         | 34,165     | 19,338            | 30,424     |

¹ Number applying for work.

² Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918.—Continued.

## UNITED STATES—Continued.

| State, city, and kind of office.   | Applications from employers. |            | Persons asked for by employers. |            | Persons applying for work. |            |                  |                  | Persons referred to positions. |                  | Positions filled. |                  |
|------------------------------------|------------------------------|------------|---------------------------------|------------|----------------------------|------------|------------------|------------------|--------------------------------|------------------|-------------------|------------------|
|                                    | May, 1917.                   | May, 1918. | May, 1917.                      | May, 1918. | New registrations.         |            | Renewals.        |                  | May, 1917.                     | May, 1918.       | May, 1917.        | May, 1918.       |
|                                    |                              |            |                                 |            | May, 1917.                 | May, 1918. | May, 1917.       | May, 1918.       |                                |                  |                   |                  |
| <i>Oklahoma.</i>                   |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Ardmore (Federal).....             |                              | 41         |                                 | 42         |                            | 14         |                  | ( <sup>2</sup> ) |                                | ( <sup>2</sup> ) |                   | ( <sup>2</sup> ) |
| Enid (Federal-State).....          | ( <sup>2</sup> )             | 117        | 170                             | 172        | 1 175                      | 1 171      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 135                            | 133              | 135               | 133              |
| Hobart (Federal).....              |                              | 25         |                                 | 94         |                            | 1 21       |                  | ( <sup>2</sup> ) |                                | 9                |                   | 9                |
| Lawton (Federal).....              |                              | 12         |                                 | 201        |                            | 1 533      |                  | ( <sup>2</sup> ) |                                | 228              |                   | 327              |
| McAlester (Federal).....           |                              | 38         |                                 | 50         |                            | 1 96       |                  | ( <sup>2</sup> ) |                                | 64               |                   | 49               |
| Muskogee (Federal-State).....      | ( <sup>2</sup> )             | 201        | 274                             | 341        | 1 285                      | 1 223      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 262                            | 209              | 261               | 163              |
| Oklahoma City (Federal-State)..... | ( <sup>2</sup> )             | 492        | 599                             | 1,136      | 1 555                      | 1 816      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 550                            | 728              | 492               | 620              |
| Tulsa (Federal-State).....         | ( <sup>2</sup> )             | 520        | 1,481                           | 893        | 1 271                      | 1 564      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 1,271                          | 505              | 1,271             | 487              |
| Total.....                         |                              |            |                                 |            |                            |            |                  |                  | 2,218                          | 1,876            | 2,159             | 1,788            |
| <i>Oregon.</i>                     |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Portland (Federal-municipal).....  | 1,517                        | 1,863      | 6,601                           | 8,732      | 3,231                      | 7,947      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 2,876                          | 6,837            | 5,335             | 6,625            |
| <i>Pennsylvania.</i>               |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Altoona (State).....               | ( <sup>2</sup> )             | 553        | 196                             | 8,296      | 141                        | 1,952      | 14               | ( <sup>2</sup> ) | 118                            | 1,278            | 103               | 1,078            |
| Erie (State).....                  |                              | 548        |                                 | 1,200      |                            | 160        |                  | 44               |                                | 157              |                   | 125              |
| Harrisburg (State).....            | ( <sup>2</sup> )             | 241        | 2,241                           | 1,100      | 293                        | 659        | 145              | 118              | 414                            | 657              | 381               | 614              |
| Johnstown (State).....             | ( <sup>2</sup> )             | 127        | 183                             | 777        | 89                         | 1 284      | 7                | ( <sup>2</sup> ) | 89                             | 246              | 72                | 246              |
| New Castle (State).....            |                              | 29         |                                 | 272        |                            | 1 49       |                  | ( <sup>2</sup> ) |                                | 39               |                   | 39               |
| New Kensington (State).....        |                              | 93         |                                 | 486        |                            | 124        |                  | ( <sup>2</sup> ) |                                | 160              |                   | 160              |
| Oil City (State).....              |                              | 78         |                                 | 155        |                            | 81         |                  | 66               |                                | 140              |                   | 125              |
| Philadelphia (State).....          | ( <sup>2</sup> )             | 553        | 1,476                           | 6,410      | 1,402                      | 6,461      | 695              | 231              | 1,346                          | 4,881            | 1,134             | 4,686            |
| Pittsburgh (Federal).....          | 46                           | 36         | 877                             | 2,838      | 1 630                      | 1 788      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 290                            | 593              | 257               | 548              |
| Pittsburgh (State).....            | ( <sup>2</sup> )             | 412        | 1,440                           | 5,519      | 709                        | 2,630      | 200              | 222              | 757                            | 2,555            | 695               | 2,498            |
| Scranton (State).....              |                              | 28         |                                 | 78         |                            | 1 89       |                  | ( <sup>2</sup> ) |                                | 41               |                   | 41               |
| Williamsport (State).....          | ( <sup>2</sup> )             |            |                                 | 206        |                            | 104        |                  | 2                |                                | 97               |                   | 59               |
| York (State).....                  |                              | 201        |                                 | 610        |                            | 286        |                  | 17               |                                | 189              |                   | 186              |
| Total.....                         |                              |            |                                 |            |                            |            |                  |                  | 3,014                          | 11,033           | 2,642             | 10,405           |
| <i>Rhode Island.</i>               |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Providence (Federal).....          |                              | 44         |                                 | 2,537      |                            | 1 2,517    |                  | ( <sup>2</sup> ) |                                | 1,573            |                   | 1,109            |
| Providence (State).....            |                              | 226        | 248                             | 270        | 310                        | 147        | 303              | 168              | 70                             | ( <sup>2</sup> ) | 310               | 270              |
| Total.....                         |                              |            |                                 |            |                            |            |                  |                  | ( <sup>2</sup> )               | 1,883            | 270               | 1,419            |
| <i>South Carolina.</i>             |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Charleston (Federal).....          |                              | 70         |                                 | 1,286      |                            | 1 547      |                  | ( <sup>2</sup> ) |                                | 520              |                   | 520              |
| <i>Texas.</i>                      |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Austin (Federal).....              |                              | 34         |                                 | 246        |                            | 1 72       |                  | ( <sup>2</sup> ) |                                | 57               |                   | ( <sup>2</sup> ) |
| Brownsville (Federal).....         |                              | 10         |                                 | 133        |                            | 1 92       |                  | ( <sup>2</sup> ) |                                | 60               |                   | 59               |
| Dallas (municipal).....            | 274                          | 201        | 378                             | 448        | 3 228                      | 4 291      | 11               | 33               | 430                            | 398              | 342               | 347              |
| Eagle Pass (Federal).....          |                              | 16         |                                 | 332        |                            | 1 260      |                  | ( <sup>2</sup> ) |                                | 203              |                   | 190              |
| El Paso (Federal).....             |                              | 23         |                                 | 176        |                            | 1 144      |                  | ( <sup>2</sup> ) |                                | 76               |                   | 74               |
| Port Worth (Federal).....          |                              | 52         |                                 | 940        |                            | 1 277      |                  | ( <sup>2</sup> ) |                                | 209              |                   | 209              |
| Houston (Federal).....             | ( <sup>2</sup> )             | 923        | ( <sup>2</sup> )                | 3,570      | 1 94                       | 1,425      | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> )               | 1,315            | ( <sup>2</sup> )  | 1,269            |
| San Antonio (Federal).....         |                              | 77         |                                 | 1,695      |                            | 1 289      |                  | ( <sup>2</sup> ) |                                | 902              |                   | 782              |
| Total.....                         |                              |            |                                 |            |                            |            |                  |                  | 430                            | 3,190            | 342               | 2,930            |
| <i>Utah.</i>                       |                              |            |                                 |            |                            |            |                  |                  |                                |                  |                   |                  |
| Ogden (Federal).....               |                              | 105        |                                 | 406        |                            | 1 204      |                  | ( <sup>2</sup> ) |                                | 203              |                   | 171              |

<sup>1</sup> Number applying for work. <sup>2</sup> Not reported. <sup>3</sup> Including 150 transients. <sup>4</sup> Including 90 transients.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, MAY, 1917 AND 1918—Concluded.

## UNITED STATES—Concluded.

| State, city, and kind of office.                         | Applica-<br>tions from<br>employers. |               | Persons<br>asked for<br>by em-<br>ployers. |               | Persons applying for<br>work. |               |               |               | Persons re-<br>ferred to<br>positions. |               | Positions<br>filled. |               |
|--|--------------------------------------|---------------|--|---------------|-------------------------------|---------------|---------------|---------------|--|---------------|----------------------|---------------|
|  |                                      |               |  |               | New regis-<br>trations.       |               | Renewals.     |               |  |               |                      |               |
|  | May,<br>1917.                        | May,<br>1918. | May,<br>1917.                              | May,<br>1918. | May,<br>1917.                 | May,<br>1918. | May,<br>1917. | May,<br>1918. | May,<br>1917.                          | May,<br>1918. | May,<br>1917.        | May,<br>1918. |
| <i>Virginia.</i>   |                                      |               |  |               |                               |               |               |               |  |               |                      |               |
| Richmond (Federal).....                                  | 316                                  |               | 4,643                                      |               | 12,438                        |               | (2)           | (2)           |  | 2,212         |                      | 2,037         |
| Richmond (municipal).....                                | 294                                  | 165           | 434  | 182           | 573                           | 167           | (2)           | (2)           | 582                                    | 221           | 258                  | 81            |
| Total.....   |                                      |               |  |               |                               |               |               |               | 582                                    | 2,433         | 258                  | 2,118         |
| <i>Washington.</i>                                       |                                      |               |  |               |                               |               |               |               |  |               |                      |               |
| Bellingham (Federal-<br>municipal).....                  | 151                                  | (2)           | 304  | 265           | 1,298                         | 1,160         | (2)           | (2)           | 265                                    | 160           | 231                  | 142           |
| Everett (municipal).....                                 | (2)                                  | (2)           | (2)  | 364           | (2)                           | (2)           | (2)           | (2)           | (2)                                    | 314           | 444                  | 210           |
| Seattle (municipal).....                                 | 4,787                                | 5,486         | 8,358                                      | 9,989         | (2)                           | (2)           | (2)           | (2)           | 8,494                                  | 10,045        | 7,701                | 9,000         |
| Spokane (municipal).....                                 | 2,742                                | 1,896         | 3,507                                      | 2,216         | (2)                           | (2)           | (2)           | (2)           | 3,460                                  | 2,110         | 3,080                | 2,054         |
| Total.....   |                                      |               |  |               |                               |               |               |               | 12,219                                 | 12,629        | 11,457               | 11,406        |
| <i>Wisconsin.</i>  |                                      |               |  |               |                               |               |               |               |  |               |                      |               |
| Green Bay (Federal).....                                 |                                      | 275           |  | 619           |                               | 163           |               | (2)           |  | 297           |                      | 172           |
| La Crosse (Federal-<br>State-municipal).....             | 220                                  | 173           | 326  | 273           | 1,286                         | 1,182         | (2)           | (2)           | 266                                    | 172           | 157                  | 108           |
| Madison (Federal).....                                   |                                      | 274           |  | 670           |                               | 1,322         |               | (2)           |  | 259           |                      | 223           |
| Milwaukee (Federal-<br>State-county-muni-<br>cipal)..... | 2,396                                | 2,323         | 4,893                                      | 5,568         | 4,396                         | 3,882         | (2)           | (2)           | 4,475                                  | 4,034         | 3,268                | 2,797         |
| Oshkosh (Federal-<br>State-municipal).....               | 208                                  | 187           | 347  | 394           | 1,245                         | 169           | (2)           | (2)           | 212                                    | 177           | 149                  | 129           |
| Superior (Federal-<br>State-municipal).....              | 519                                  | 346           | 1,136                                      | 1,604         | 1,018                         | 1,236         | (2)           | (2)           | 1,155                                  | 1,306         | 747                  | 690           |
| Total.....   |                                      |               |  |               |                               |               |               |               | 6,108                                  | 6,245         | 4,321                | 4,119         |
| <i>Wyoming.</i>  |                                      |               |  |               |                               |               |               |               |  |               |                      |               |
| Cheyenne (Federal).....                                  |                                      | 33            |  | 1,280         |                               | 216           |               | (2)           |  | 236           |                      | 135           |
| Grand total.....   |                                      |               |  |               |                               |               |               |               | 137,019                                | 257,338       | 123,875              | 226,319       |

## CANADA.

| <i>Quebec.</i>           |     |     |       |     |     |       |     |     |     |     |     |     |
|--------------------------|-----|-----|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|
|                          |     |     |       |     |     |       |     |     |     |     |     |     |
| Montreal (Provincial)... | 428 | 277 | 1,341 | 709 | 601 | 215   | (2) | (2) | 803 | 366 | 684 | 307 |
| Quebec (Provincial)....  | (2) | 48  | 566   | 317 | 385 | 1,111 | (2) | (2) | (2) | 101 | 224 | 92  |
| Total.....               |     |     |       |     |     |       |     |     | 803 | 467 | 908 | 399 |

<sup>1</sup> Number applying for work.<sup>2</sup> Not reported.<sup>3</sup> Figures for district.ACTIVITIES OF PUBLIC EMPLOYMENT OFFICES IN MASSACHUSETTS  
IN 1917.

The work of the four public employment offices in Massachusetts for the 13-month period ending December 31, 1917, is given in a pamphlet of 38 pages comprising the eleventh annual report on this subject issued by the director of the State bureau of statistics under

date of January 15, 1918.<sup>1</sup> The four public employment offices are located at Boston, Springfield, Worcester, and Fall River. The office at the last-named city, however, was discontinued on March 31, 1917.

During the 13 months, 50,047 applications for help were received from 12,612 individual employers who asked for 62,541 workers. The number of positions offered was 80,734, and 41,155 positions were reported filled (approximately 51 per cent), although the total number of persons for whom positions were secured was only 19,577, or 31.3 per cent of the number of persons applied for by employers. The expense of running these offices during the 12 months ending November 30, 1917, is given as \$36,374.28, which makes a cost of 93.8 cents for each of the 38,763 positions reported filled during the year. The following table is a summary of the work of these employment offices, the Fall River office, as already mentioned, being operated for only four months:

SUMMARY OF THE BUSINESS OF THE FOUR PUBLIC EMPLOYMENT OFFICES IN MASSACHUSETTS FOR THE 13 MONTHS ENDING DECEMBER 31, 1917.

| Sex.        | Applica-<br>tions from<br>employers. | Persons<br>called for. | Positions<br>offered. | Positions filled. |                                       |                                      |
|-------------|--------------------------------------|------------------------|-----------------------|-------------------|---------------------------------------|--------------------------------------|
|             |                                      |                        |                       | Number.           | Per cent of<br>persons<br>called for. | Per cent of<br>positions<br>offered. |
| Male.....   | (1)                                  | 36,478                 | 50,857                | 21,577            | 59.2                                  | 42.4                                 |
| Female..... | (1)                                  | 26,063                 | 29,877                | 19,578            | 75.1                                  | 65.5                                 |
| Total.....  | 50,047                               | 62,541                 | 80,734                | 41,155            | 65.8                                  | 51.0                                 |

<sup>1</sup> Not given in the report.

Classified by occupation group, the number of persons called for and of positions filled are shown in the following table:

NUMBER OF PERSONS CALLED FOR AND NUMBER OF POSITIONS FILLED BY MASSACHUSETTS PUBLIC EMPLOYMENT OFFICES DURING THE 13 MONTHS ENDING DECEMBER 31, 1917, CLASSIFIED BY OCCUPATION GROUP.

| Occupation group.           | Persons<br>called for. | Positions filled. |                                       |   |
|-----------------------------|------------------------|-------------------|---------------------------------------|---|
|                             |                        | Number.           | Per cent of<br>persons<br>called for. | Per cent in<br>each<br>occupation<br>group. |
| Skilled labor.....          | 16,776                 | 9,985             | 59.5                                  | 24.3  |
| Unskilled labor.....        | 37,359                 | 26,920            | 72.1                                  | 65.4  |
| Transportation.....         | 1,434                  | 773               | 53.9                                  | 1.9   |
| Mercantile trade.....       | 4,261                  | 1,904             | 44.7                                  | 4.6   |
| Clerical.....               | 2,136                  | 1,270             | 59.5                                  | 3.1   |
| All other unclassified..... | 575                    | 303               | 52.7                                  | .7  |
| Total.....                  | 62,541                 | 41,155            | 65.8                                  | 100.0                                       |

<sup>1</sup> Eleventh Annual Report on the Public Employment Offices for the 13-month period from December 1, 1916, to December 31, 1917. Public Document No. 80. Boston, 1918. 38 pp.

**REPORT OF EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM  
(GREAT BRITAIN AND IRELAND) FOR FIVE WEEKS ENDING APRIL 12,  
1918.**

As reported by the British Labor Gazette of May, 1918, the total number of workpeople remaining on the registers of the 390 British employment offices on April 12, 1918, was 110,555, compared with 103,717 on March 8, 1918. These figures comprise workers in professional, commercial, and clerical, as well as industrial occupations.

The operations of the employment exchanges for the five weeks are summarized as follows:

|   | Men.    | Women.  | Boys.  | Girls. | Total.  |
|---|---------|---------|--------|--------|---------|
| On registers Mar. 8, 1918.....                      | 31,484  | 56,408  | 7,719  | 8,106  | 103,717 |
| Number of individuals registered during period..... | 108,779 | 120,983 | 24,006 | 21,388 | 275,156 |
| Total.....  | 140,263 | 177,391 | 31,725 | 29,494 | 378,873 |
| Reregistrations during period.....                  | 4,278   | 5,248   | 502    | 489    | 10,517  |
| On registers Apr. 12, 1918.....                     | 33,195  | 60,067  | 8,405  | 8,888  | 110,555 |
| Vacancies notified during period.....               | 90,281  | 63,288  | 12,777 | 12,021 | 178,367 |
| Vacancies filled during period.....                 | 65,535  | 49,400  | 10,883 | 9,107  | 134,925 |
| Applicants placed in other districts.....           | 21,245  | 7,693   | 1,619  | 1,513  | 32,070  |

The average daily number of registrations and of vacancies notified and vacancies filled during the month were 10,203, 6,370, and 4,819, respectively.

|            | Average daily registrations.   |                                    |           | Average daily vacancies notified. |                                    |           | Average daily vacancies filled. |                                    |           |
|------------|--------------------------------|------------------------------------|-----------|-----------------------------------|------------------------------------|-----------|---------------------------------|------------------------------------|-----------|
|            | 5 weeks ending April 12, 1918. | Increase (+) or decrease (-) on a— |           | 5 weeks ending April 12, 1918.    | Increase (+) or decrease (-) on a— |           | 5 weeks ending April 12, 1918.  | Increase (+) or decrease (-) on a— |           |
|            |                                | Month ago.                         | Year ago. |                                   | Month ago.                         | Year ago. |                                 | Month ago.                         | Year ago. |
| Men.....   | 4,038                          | -65                                | +383      | 3,225                             | -236                               | +223      | 2,341                           | +8                                 | +228      |
| Women..... | 4,508                          | -338                               | -1,752    | 2,260                             | -94                                | -525      | 1,764                           | -141                               | -750      |
| Boys.....  | 875                            | -44                                | +95       | 456                               | -61                                | +8        | 389                             | -30                                | +14       |
| Girls..... | 782                            | -27                                | -56       | 429                               | -26                                | +3        | 325                             | -25                                | -22       |
| Total..... | 10,203                         | -474                               | -1,330    | 6,370                             | -417                               | -291      | 4,819                           | -188                               | -530      |

Compared with a month ago the daily average of registrations, vacancies notified, and vacancies filled showed percentage decreases of 4.4 per cent, 6.1 per cent, and 3.8 per cent, respectively. Compared with a year ago there were percentage decreases of 11.6 per cent, 4.4 per cent, and 9.9 per cent, respectively.

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 April 12, 1918.

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN THE 5 WEEKS ENDING APRIL 12, 1918 (GENERAL REGISTER).

| Occupation groups.                             | Adults.                               |         |                         |         |                       |         | Juveniles.              |        |                       |        |
|--|---------------------------------------|---------|-------------------------|---------|-----------------------|---------|-------------------------|--------|-----------------------|--------|
|  | Individuals registered during period. |         | Vacancies.              |         |                       |         | Vacancies.              |        |                       |        |
|  |                                       |         | Notified during period. |         | Filled during period. |         | Notified during period. |        | Filled during period. |        |
|  | Men.                                  | Wom-en. | Men.                    | Wom-en. | Men.                  | Wom-en. | Boys.                   | Girls. | Boys.                 | Girls. |
| <b>A. INSURED TRADES. 1</b>                    |                                       |         |                         |         |                       |         |                         |        |                       |        |
| Building.....                                  | 18,533                                | 918     | 17,650                  | 791     | 12,309                | 457     | 432                     | 32     | 356                   | 21     |
| Works of construction.....                     | 10,488                                | 411     | 11,443                  | 28      | 10,502                | 27      | 38                      | .....  | 34                    | .....  |
| Sawmilling.....                                | 1,163                                 | 1,514   | 1,257                   | 584     | 624                   | 535     | 331                     | 104    | 297                   | 95     |
| Shipbuilding.....                              | 6,382                                 | 499     | 6,809                   | 241     | 5,789                 | 218     | 407                     | 9      | 408                   | 7      |
| Engineering.....                               | 28,810                                | 23,063  | 24,793                  | 13,025  | 18,427                | 12,119  | 3,580                   | 890    | 3,281                 | 741    |
| Construction of vehicles.....                  | 952                                   | 359     | 669                     | 354     | 237                   | 337     | 80                      | 9      | 62                    | 7      |
| Cabinet making, etc.....                       | 321                                   | 211     | 291                     | 96      | 81                    | 60      | 98                      | 37     | 84                    | 36     |
| Miscellaneous metal trades.....                | 1,857                                 | 2,184   | 2,593                   | 1,066   | 1,599                 | 938     | 389                     | 394    | 344                   | 332    |
| Precious metals, etc.....                      | 200                                   | 238     | 146                     | 478     | 70                    | 456     | 127                     | 196    | 121                   | 157    |
| Brick and cement.....                          | 280                                   | 57      | 369                     | 108     | 109                   | 84      | 20                      | 5      | 18                    | 6      |
| Chemicals, etc.....                            | 1,148                                 | 1,215   | 1,139                   | 827     | 1,007                 | 765     | 137                     | 263    | 116                   | 231    |
| Rubber and waterproof goods.....               | 823                                   | 886     | 230                     | 855     | 147                   | 715     | 43                      | 69     | 42                    | 82     |
| Ammunition and explosives.....                 | 4,497                                 | 26,886  | 1,755                   | 5,334   | 1,625                 | 4,772   | 423                     | 608    | 441                   | 526    |
| Leather, excluding boots and shoes..           | 261                                   | 496     | 102                     | 244     | 60                    | 217     | 70                      | 176    | 69                    | 144    |
| Total, insured trades.....                     | 74,910                                | 58,567  | 69,246                  | 24,031  | 52,586                | 21,700  | 6,175                   | 2,792  | 5,673                 | 2,385  |
| <b>B. UNINSURED TRADES.</b>                    |                                       |         |                         |         |                       |         |                         |        |                       |        |
| Wood, furniture, fittings, etc.....            | 39                                    | 78      | 78                      | 75      | 15                    | 49      | 35                      | 39     | 35                    | 31     |
| Domestic.....                                  | 1,767                                 | 22,712  | 1,963                   | 22,198  | 949                   | 15,011  | 554                     | 2,136  | 386                   | 1,218  |
| Commercial and clerical.....                   | 4,186                                 | 9,561   | 1,847                   | 4,492   | 1,202                 | 3,387   | 996                     | 1,618  | 822                   | 1,389  |
| Conveyance of men, goods, etc.....             | 9,937                                 | 3,656   | 6,819                   | 1,515   | 4,876                 | 1,275   | 2,670                   | 1,261  | 2,085                 | 899    |
| Agriculture.....                               | 825                                   | 1,078   | 1,367                   | 1,292   | 329                   | 883     | 150                     | 59     | 93                    | 47     |
| Mining and quarrying.....                      | 485                                   | 29      | 1,004                   | 18      | 333                   | 9       | 51                      | 3      | 44                    | 1      |
| Brushes, brooms, etc.....                      | 9                                     | 23      | 9                       | 30      | 2                     | 19      | 7                       | 28     | 6                     | 23     |
| Pottery and glass.....                         | 113                                   | 294     | 180                     | 152     | 38                    | 83      | 90                      | 106    | 74                    | 56     |
| Paper, prints, books, and stationery           | 193                                   | 583     | 297                     | 416     | 89                    | 308     | 223                     | 495    | 181                   | 383    |
| Textile.....                                   | 916                                   | 2,520   | 734                     | 1,783   | 378                   | 1,283   | 395                     | 577    | 301                   | 442    |
| Dress.....                                     | 332                                   | 2,443   | 334                     | 1,835   | 92                    | 1,060   | 80                      | 838    | 65                    | 611    |
| Boots and shoes.....                           | 236                                   | 236     | 243                     | 182     | 94                    | 140     | 71                      | 98     | 56                    | 74     |
| Food, tobacco, drink, and lodging...           | 397                                   | 2,306   | 416                     | 2,391   | 182                   | 1,908   | 208                     | 419    | 156                   | 350    |
| General laborers.....                          | 12,411                                | 11,073  | 3,961                   | 973     | 3,175                 | 873     | 662                     | 358    | 592                   | 295    |
| Shop assistants.....                           | 511                                   | 2,850   | 276                     | 691     | 90                    | 405     | 169                     | 641    | 109                   | 433    |
| Government, defense and profes-<br>sional..... | 1,266                                 | 2,801   | 1,020                   | 1,052   | 643                   | 872     | 216                     | 275    | 184                   | 244    |
| All others.....                                | 246                                   | 173     | 487                     | 162     | 462                   | 135     | 25                      | 278    | 21                    | 226    |
| Total, uninsured trades.....                   | 33,869                                | 62,416  | 21,035                  | 39,257  | 12,949                | 27,700  | 6,602                   | 9,229  | 5,210                 | 6,722  |
| Grand total, all trades.....                   | 108,779                               | 120,983 | 90,281                  | 63,288  | 65,535                | 49,400  | 12,777                  | 12,021 | 10,883                | 9,107  |

<sup>1</sup> Occupations are grouped according to the industry with which they are mainly connected, and applicants are registered according to the "work desired" by them.

This table shows that during the period, in the insured trades, 133,477 adults registered for work—74,910 men and 58,567 women. There were 102,244 vacancies reported—69,246 men, 24,031 women, 6,175 boys, and 2,792 girls. The number of positions filled was 82,344—52,586 men, 21,700 women, 5,673 boys, and 2,385 girls. The occupational groups in which the largest number of positions was filled by adults were: Engineering, 30,546; building, 12,766; and works of construction, 10,529.

In the uninsured trades there were 96,285 registrations—33,869 men and 62,416 women. The number of vacancies reported was 76,123—21,035 men, 39,257 women, 6,602 boys, and 9,229 girls.



The total number of positions filled was 52,581—12,949 men, 27,700 women, 5,210 boys, and 6,722 girls. The occupational groups in the uninsured trades in which the largest number of positions was filled by adults were: Domestic, 15,960; conveyance of men, goods, etc., 6,151; commercial and clerical, 4,589; and general laborers, 4,048.

The total number of positions filled by adults in both the insured and uninsured trades during the five weeks ending April 12, 1918, as compared with the preceding month, shows an increase of 13 per cent. The increase in the number of positions filled by men was 7.1 per cent; by women, 8 per cent. Much the largest number of men were employed in engineering; and of women, 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..... | 390                | 134,925           | 4,819            | 12                            |
| United States..... | 147                | 188,038           | 7,232            | 49                            |

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 placement is made through the public employment offices, the much greater proportion being handled by the private employment agencies.

#### EMPLOYMENT IN SELECTED INDUSTRIES IN MAY, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in May, 1918, from representative manufacturing establishments in 13 industries. The figures for May of this year as compared with those from identical establishments for May, 1917, show that there was an increase in the number of people employed in 4 industries and a decrease in 9. The largest increase—5.6 per cent—appeared in paper making, while the greatest decrease—9.3 per cent—was shown in cigar manufacturing.

The reports from all industries show an increase in the total amount of the pay roll for May, 1918, when compared with May, 1917. This increase ranges from 1.9 per cent in cigar manufacturing to 35.3 per cent in car building and repairing.

## COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MAY, 1917, AND MAY, 1918.

| Industry.                       | Establishments reporting for May both years. | Period of pay roll. | Number on pay roll in May— |         | Per cent of increase (+) or decrease (-). | Amount of pay roll in May— |             | Per cent of increase (+) or decrease (-). |
|---------------------------------|--|---------------------|----------------------------|---------|---|----------------------------|-------------|---|
|                                 |  |                     | 1917                       | 1918    |   | 1917                       | 1918        |   |
| Automobile manufacturing.....   | 47   | 1 week.....         | 120,112                    | 114,745 | -4.5                                      | \$2,773,654                | \$3,011,044 | + 8.6                                     |
| Boots and shoes.....            | 66   | do.....             | 49,068                     | 46,804  | -4.6                                      | 697,672                    | 797,030     | +14.2                                     |
| Car building and repairing..... | 32   | ½ month.....        | 45,316                     | 42,909  | -5.3                                      | 1,587,125                  | 2,146,603   | +35.3                                     |
| Cigar manufacturing.....        | 63   | 1 week.....         | 19,793                     | 17,956  | -9.3                                      | 243,205                    | 247,769     | + 1.9                                     |
| Clothing, men's ready-made..... | 36   | do.....             | 25,571                     | 25,659  | + .3                                      | 403,576                    | 490,282     | +21.5                                     |
| Cotton finishing.....           | 15   | do.....             | 11,907                     | 11,245  | -5.6                                      | 175,171                    | 202,807     | +15.8                                     |
| Cotton manufacturing.....       | 54   | do.....             | 53,275                     | 51,113  | -4.1                                      | 581,898                    | 757,781     | +30.2                                     |
| Hosiery and underwear.....      | 56   | do.....             | 30,588                     | 29,779  | -2.6                                      | 334,567                    | 415,667     | +24.2                                     |
| Iron and steel.....             | 97   | ½ month.....        | 187,889                    | 189,242 | + .7                                      | 8,951,647                  | 11,369,076  | +27.0                                     |
| Leather manufacturing.....      | 35   | 1 week.....         | 16,517                     | 15,492  | -6.2                                      | 250,005                    | 308,533     | +23.4                                     |
| Paper making.....               | 48   | do.....             | 21,264                     | 22,463  | +5.6                                      | 343,363                    | 423,976     | +23.5                                     |
| Silk.....                       | 41   | 2 weeks.....        | 18,161                     | 16,573  | -8.7                                      | 450,123                    | 477,386     | + 6.1                                     |
| Woolen.....                     | 46   | 1 week.....         | 44,705                     | 45,179  | +1.1                                      | 644,544                    | 819,198     | +27.1                                     |

The following table shows the number of persons actually working on the last full day of the reported pay period in May, 1917, and May, 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 MAY, 1917, AND MAY, 1918.

| Industry.                       | Establishments reporting for May both years. | Period of pay roll | Number actually working on last full day of reported pay period in May— |         | Per cent of increase (+) or decrease (-). |
|---------------------------------|--|--------------------|---|---------|---|
|                                 |  |                    | 1917  | 1918    |   |
| Automobile manufacturing.....   | 29   | 1 week.....        | 77,663  | 73,398  | - 5.5                                     |
| Boots and shoes.....            | 22   | do.....            | 11,497  | 10,733  | - 6.6                                     |
| Car building and repairing..... | 30   | ½ month.....       | 36,544  | 37,277  | + 2.0                                     |
| Cigar manufacturing.....        | 17   | 1 week.....        | 4,430   | 3,554   | -19.8                                     |
| Clothing, men's ready-made..... | 5  | do.....            | 11,420  | 10,556  | - 7.6                                     |
| Cotton finishing.....           | 10   | do.....            | 9,028   | 8,629   | - 4.4                                     |
| Cotton manufacturing.....       | 36   | do.....            | 27,517  | 25,957  | - 5.7                                     |
| Hosiery and underwear.....      | 16   | do.....            | 12,498  | 12,073  | - 3.4                                     |
| Iron and steel.....             | 76   | ½ month.....       | 146,713   | 149,660 | + 2.0                                     |
| Leather manufacturing.....      | 16   | 1 week.....        | 9,467   | 9,520   | + .6                                      |
| Paper making.....               | 12   | do.....            | 4,279   | 4,771   | +11.5                                     |
| Silk.....                       | 25   | 2 weeks.....       | 13,062  | 12,060  | - 7.7                                     |
| Woolen.....                     | 36   | 1 week.....        | 36,365  | 37,301  | + 2.6                                     |

In comparing the reports of the same industries for May, 1918, with those for April, 1918, four show an increase in the number of persons on the pay roll and nine a decrease. The increases were small, the largest, 1.6 per cent, appearing in iron and steel. On the other hand, some of the decreases were comparatively high, the greatest, 14.6 per cent, being in cigar manufacturing. These decreases are attributable to various causes, mainly scarcity of help, and to some extent labor disputes.

Although there was a decrease in employees in 9 industries, 11 of the 13 industries reported show an increase in the total amount of pay roll in May, 1918, as compared with April, 1918. Increases of 14.4 per cent, 9.1 per cent, and 8.4 per cent, respectively, are shown, in iron and steel, men's ready-made clothing, and leather manufacturing. The decrease of 15.1 per cent in cigar manufacturing was largely due to strikes.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN APRIL, 1918, AND MAY, 1918.

| Industry.                       | Establishments reporting for April and May. | Period of pay roll. | Number on pay roll in— |            | Per cent of increase (+) or decrease (-). | Amount of pay roll in— |             | Per cent of increase (+) or decrease (-). |
|---------------------------------|---|---------------------|------------------------|------------|---|------------------------|-------------|---|
|                                 |   |                     | April, 1918.           | May, 1918. |   | April, 1918.           | May, 1918.  |   |
| Automobile manufacturing....    | 48  | 1 week...           | 114,979                | 114,944    | - (1)                                     | \$2,816,810            | \$3,015,637 | + 7.1                                     |
| Boots and shoes.....            | 67  | ..do....            | 49,155                 | 48,060     | - 2.2                                     | 821,806                | 822,459     | + .1                                      |
| Car building and repairing..... | 31  | ½ month.            | 41,612                 | 42,075     | + 1.1                                     | 1,981,793              | 2,112,189   | + 6.5                                     |
| Cigar manufacturing.....        | 60  | 1 week...           | 20,844                 | 17,809     | -14.6                                     | 288,899                | 245,224     | -15.1                                     |
| Clothing, men's ready-made..... | 35  | ..do....            | 25,574                 | 25,597     | + .1                                      | 448,487                | 489,099     | + 9.1                                     |
| Cotton finishing.....           | 16  | ..do....            | 11,545                 | 11,443     | - .9                                      | 203,014                | 206,525     | + 1.7                                     |
| Cotton manufacturing.....       | 53  | ..do....            | 50,161                 | 49,323     | - 1.7                                     | 706,138                | 729,625     | + 3.3                                     |
| Hosiery and underwear.....      | 53  | ..do....            | 28,124                 | 27,721     | - 1.4                                     | 378,558                | 389,843     | + 3.0                                     |
| Iron and steel.....             | 97  | ½ month.            | 185,662                | 188,566    | + 1.6                                     | 9,902,299              | 11,326,012  | +14.4                                     |
| Leather manufacturing.....      | 35  | 1 week...           | 15,642                 | 15,492     | - 1.0                                     | 284,732                | 308,533     | + 8.4                                     |
| Paper making.....               | 49  | ..do....            | 22,863                 | 23,003     | + .6                                      | 430,448                | 438,372     | + 1.8                                     |
| Silk.....                       | 40  | 2 weeks...          | 13,392                 | 13,349     | - .3                                      | 371,932                | 383,301     | + 3.1                                     |
| Woolen.....                     | 46  | 1 week...           | 46,162                 | 45,179     | - 2.1                                     | 847,749                | 819,198     | - 3.4                                     |

<sup>1</sup> Less than one-tenth of 1 per cent.

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for April and May, 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 APRIL, 1918, AND MAY, 1918.

| Industry.                       | Establishments reporting for April and May. | Period of pay roll. | Number actually working on last full day of reported pay period in— |            | Per cent of increase (+) or decrease (-). |
|---------------------------------|---|---------------------|---|------------|---|
|                                 |   |                     | April, 1918.  | May, 1918. |   |
| Automobile manufacturing.....   | 30  | 1 week...           | 72,762  | 74,600     | + 2.5                                     |
| Boots and shoes.....            | 22  | ..do....            | 11,433  | 11,113     | - 2.8                                     |
| Car building and repairing..... | 30  | ½ month.            | 35,327  | 36,794     | + 4.2                                     |
| Cigar manufacturing.....        | 19  | 1 week...           | 4,182   | 3,503      | -16.2                                     |
| Clothing, men's ready-made..... | 6   | ..do....            | 4,627   | 4,694      | + 1.4                                     |
| Cotton finishing.....           | 12  | ..do....            | 9,129   | 9,281      | + 1.7                                     |
| Cotton manufacturing.....       | 35  | ..do....            | 24,911  | 24,513     | - 1.6                                     |
| Hosiery and underwear.....      | 18  | ..do....            | 11,387  | 11,316     | - .6                                      |
| Iron and steel.....             | 76  | ½ month.            | 146,597   | 152,818    | + 4.2                                     |
| Leather manufacturing.....      | 18  | 1 week...           | 10,623  | 10,606     | - .2                                      |
| Paper making.....               | 13  | ..do....            | 5,002   | 5,116      | + 2.3                                     |
| Silk.....                       | 25  | 2 weeks...          | 9,158   | 9,027      | - 1.4                                     |
| Woolen.....                     | 38  | 1 week...           | 38,517  | 37,910     | - 1.6                                     |

## CHANGES IN WAGE RATES.

In 12 of the 13 industries there were certain establishments reporting wage-rate increases and in 2—cigar manufacturing and iron and steel—decreases. No establishment in the woolen industry reported a change. A number of firms did not answer the inquiry relating to wage-rate changes.

Automobile manufacturing: An increase of 20 to 25 per cent, affecting 75 per cent of the employees, was reported by one plant. One establishment granted an increase in the hourly rate ranging from 3 cents to 5 cents, while another plant increased the productive hourly rate 0.0254 cent. Two plants reported increases, but failed to state the amount of increase or number affected.

Boots and shoes: One establishment reported an increase of slightly more than 11 per cent, affecting 15 per cent of the force. The entire force in one plant received increases ranging from 10 per cent to 20 per cent. Three firms granted a 10 per cent increase—one to all employees, one to about 7 per cent of the force, and the third did not state the number affected. Another factory granted 60 hours' pay for 50 hours' work to week workers, thus increasing the hourly rates but not the earnings per week, and a 10 per cent increase was also granted to piece workers, each class constituting about half of the force. Two plants gave a bonus of 10 per cent, affecting all the employees in one and all week and piece workers for the duration of the War in the other; 43 per cent of the employees in another plant were increased  $7\frac{1}{2}$  per cent. Every employee in one concern received an increase of 5 per cent. One plant increased the office force and one forewoman \$2 per week, and the cleaning department 1 cent per pair of shoes. Three establishments reported increases, but gave no further data.

Car building and repairing: An increase of 10 per cent in one plant was granted to 60 per cent of the employees.

Cigar manufacturing: Ten per cent of the force in one factory received an increase of 7 per cent. One plant reported an increase of 5 per cent to 10 per cent of the force, and another plant granted a general increase of approximately 5 per cent. An increase of \$1 per thousand for making cigars was granted by one factory. A decrease was reported by one factory, but the report failed to state the amount of decrease or number affected.

Clothing, men's ready-made: One concern granted graduated increases of 10 to 15 per cent, affecting 80 per cent of the force. Five establishments reported an increase of 10 per cent—one in all shops, except to the foremen, two to 90 per cent of the employees, one to 15 per cent of the force, and another to about 3 per cent of its employees.

Cotton finishing: An increase of 15 per cent was granted by one firm, which failed to report the number affected. Two plants reported an increase of 10 per cent affecting their entire force.

Cotton manufacturing: An average increase of 15 per cent was granted to all the employees in one plant. One establishment reported an increase of  $12\frac{1}{2}$  per cent, but did not state the number affected, and another plant reported an increase of 11.34 per cent affecting the entire force. An increase of 10 per cent was granted by four firms—three to all employees, the fourth failing to state the number affected; one firm granted an increase of approximately 10 per cent; another granted a general increase of about 10 per cent and a bonus of \$1 per week to "full-time" workers. One establishment gave an increase of 9.8 per cent, but did not state how many employees were affected. An increase of 8 to 12 per cent was given to the entire force in one firm and of 8 per cent to all employees in another. One establishment reported an increase of  $7\frac{1}{2}$  per cent to all employees and a bonus of  $7\frac{1}{2}$  per cent to all "full-time" workers. An average increase of 5 per cent was given to the total force in one concern. One firm granted an increase of \$1.50 to all who work a full week.

Hosiery and underwear: One establishment reported a bonus of 21 per cent, but failed to state the number of employees affected. An increase of  $12\frac{3}{4}$  per cent was granted to approximately 23 per cent of the force in one plant and  $12\frac{1}{2}$  per cent to all employees in another. Pressers and folders in one firm were given an increase of 11 per cent. One establishment reported an increase of 10 per cent to 25 per cent of the force, one an increase of 10 to 15 per cent to approximately 17 per cent of the employees, and another an increase of 10 to  $12\frac{1}{2}$  per cent, but did not state the per cent of the force affected. In three mills a 10 per cent increase was given, all employees being affected in two establishments and 30 per cent of the force in the other, while another mill reported a 10 per cent bonus for full-time to all employees. One plant reported an increase, but stated neither the amount of increase nor the number affected.

Iron and steel: Practically the entire force of one plant received an increase of 16.86 per cent, and in another plant there was an increase of  $16\frac{1}{2}$  per cent to all employees. An increase of 15 per cent was reported by 31 establishments—affecting the whole force in 21 plants, all hour men in 3, one-half of force in 1 plant, 60 per cent in 1, and in 4 plants the number affected ranged from 60 per cent to 93.9 per cent of the employees. In 9 plants there were increases ranging from 13.5 to 14.57 per cent affecting practically all the employees in each instance, while in 15 establishments smaller increases, ranging from 5 per cent to 12 per cent, were made. A 4 per cent decrease to 30 per cent of the force was reported in one plant, while in an-



other there was a decrease to one-third of the employees, but the report did not state what per cent.

Leather manufacturing: One plant reported an increase of 33 per cent to practically all persons, while another gave an increase of 15 per cent, affecting 75 per cent of all employees. Six establishments reported a 10 per cent advance in wages; three of these granted the increase to the entire force, one to slightly more than 29 per cent, one to 21 per cent, and another to 14 per cent. An increase of 8 per cent was given to the entire force in one plant. One establishment reported an increase of \$1 per week to 50 per cent of the force, one an advance of 25 cents per day to 25 per cent of the force, and another 15 cents per day to all employees. In one plant an increase was granted to 35 per cent of the employees, but no statement was made as to the amount of increase.

Paper making: An increase ranging from 6 per cent to 50 per cent, or an average increase of approximately 17 per cent, was granted to a large part of the force in one mill. One establishment reported an increase of 8 per cent, affecting 15 per cent of the employees. In five plants an increase of 10 per cent is shown, this affecting the entire force in four firms and approximately all in the other; while another mill reported a 10 per cent bonus and an increase of 3 cents an hour to all. Two establishments gave an increase of 8 per cent and 5 per cent, respectively, but did not state how many employees were affected. The entire force in one plant received an increase of 25 cents per day.

Silk: Two establishments reported an increase of 20 per cent, one granting it to all employees, the other failing to state the number affected. An increase of 10 per cent was received by 90 per cent of the force in one mill and by 50 per cent in another. The wages of weavers, or about 31 per cent of the force in one mill, were increased 7 per cent. In one concern a 5 per cent increase was granted to 10 per cent of the employees. An increase of 2 cents per hour to all male workers and 1 cent to all female workers was given by one establishment.



INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, JANUARY, 1915,  
TO MAY, 1918.

Index numbers showing relatively the variation in the number of persons employed and in pay-roll totals in 13 industries by months from January, 1915 to May, 1918, have been compiled and are presented in the two following tables. These index numbers are based on the figures for "Employment in selected industries," appearing in this and preceding issues of the REVIEW. The seven industries shown in the first table are the only ones for which the bureau has comparable data as far back as January, 1915; hence in the first table January, 1915, is taken as the basis of comparison and in the second January, 1916.

The number of persons whose names appeared on the pay roll for the base month is represented by 100, and the amount of money carried on the pay rolls is likewise represented by 100. To illustrate, if the number of persons employed in the iron and steel industry in January, 1915, is taken as 100, then the number employed in that industry in May, 1918, was 186; in other words, it had increased 86 per cent; and if the money pay roll in January, 1915, be taken as 100, the pay roll in May, 1918, represented 360; or, in other words, the amount paid in wages was more than three and one-half times as much in May, 1918, as in January, 1915.

While the index numbers show the change in the number of persons employed and in the aggregate amount of money paid in wages, they do not, without a computation, indicate the change in per capita earnings. An index for per capita earnings may be obtained by dividing the index for the amount of the pay roll by the index for the number of persons on the pay roll. The per cent of increase in per capita earnings in May, 1918, as compared with January, 1915, or January, 1916, has been computed and entered at the bottom of the table. Thus the per capita earnings of boot and shoe factory employees increased 85 per cent between January, 1915, and May, 1918, and the per capita earnings of employees in automobile manufacturing increased 40 per cent between January, 1916, and May, 1918.

## INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, JANUARY, 1915, TO MAY, 1918.

[January, 1915=100.]

| Month and year.   | Boots and shoes.    |                   | Cotton finishing.   |                   | Cotton manufacturing. |                   | Hosiery and underwear. |                   | Iron and steel.     |                   | Silk.               |                   | Woolen manufacturing. |                   |
|---|---------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|------------------------|-------------------|---------------------|-------------------|---------------------|-------------------|-----------------------|-------------------|
|   | Number on pay roll. | Amt. of pay roll. | Number on pay roll. | Amt. of pay roll. | Number on pay roll.   | Amt. of pay roll. | Number on pay roll.    | Amt. of pay roll. | Number on pay roll. | Amt. of pay roll. | Number on pay roll. | Amt. of pay roll. | Number on pay roll.   | Amt. of pay roll. |
| 1915.   |                     |                   |                     |                   |                       |                   |                        |                   |                     |                   |                     |                   |                       |                   |
| January.....  | 100                 | 100               | 100                 | 100               | 100                   | 100               | 100                    | 100               | 100                 | 100               | 100                 | 100               | 100                   | 100               |
| February.....   | 99                  | 96                | 111                 | 112               | 100                   | 104               | 105                    | 106               | 96                  | 106               | 102                 | 108               | 101                   | 99                |
| March.....  | 95                  | 88                | 108                 | 110               | 101                   | 107               | 105                    | 111               | 104                 | 116               | 102                 | 110               | 104                   | 104               |
| April.....  | 89                  | 76                | 110                 | 113               | 101                   | 105               | 108                    | 112               | 108                 | 122               | 99                  | 102               | 107                   | 108               |
| May.....  | 91                  | 82                | 110                 | 115               | 102                   | 106               | 110                    | 118               | 111                 | 120               | 99                  | 105               | 107                   | 107               |
| June.....   | 92                  | 89                | 102                 | 107               | 101                   | 101               | 112                    | 122               | 115                 | 132               | 98                  | 102               | 102                   | 97                |
| July.....   | 93                  | 91                | 109                 | 105               | 101                   | 101               | 110                    | 118               | 117                 | 121               | 97                  | 103               | 105                   | 98                |
| August.....   | 94                  | 95                | 106                 | 109               | 100                   | 102               | 108                    | 118               | 121                 | 135               | 100                 | 104               | 103                   | 96                |
| September.....  | 94                  | 95                | 106                 | 107               | 99                    | 103               | 113                    | 117               | 125                 | 140               | 101                 | 104               | 113                   | 111               |
| October.....  | 103                 | 111               | 111                 | 114               | 100                   | 96                | 114                    | 129               | 130                 | 147               | 103                 | 113               | 113                   | 102               |
| November.....   | 107                 | 120               | 122                 | 116               | 101                   | 101               | 116                    | 132               | 131                 | 159               | 106                 | 121               | 117                   | 117               |
| December.....   | 125                 | 129               | 115                 | 124               | 101                   | 100               | 119                    | 138               | 130                 | 164               | 108                 | 121               | 117                   | 121               |
| 1916.   |                     |                   |                     |                   |                       |                   |                        |                   |                     |                   |                     |                   |                       |                   |
| January.....  | 114                 | 125               | 118                 | 124               | 99                    | 102               | 115                    | 132               | 135                 | 162               | 109                 | 120               | 114                   | 124               |
| February.....   | 115                 | 123               | 119                 | 129               | 100                   | 110               | 116                    | 138               | 138                 | 184               | 107                 | 126               | 117                   | 133               |
| March.....  | 115                 | 125               | 121                 | 132               | 100                   | 111               | 118                    | 142               | 141                 | 186               | 109                 | 131               | 117                   | 134               |
| April.....  | 113                 | 120               | 115                 | 127               | 100                   | 113               | 120                    | 142               | 141                 | 186               | 110                 | 130               | 119                   | 136               |
| May.....  | 111                 | 123               | 112                 | 136               | 100                   | 118               | 121                    | 146               | 146                 | 204               | 109                 | 130               | 120                   | 145               |
| June.....   | 113                 | 127               | 113                 | 137               | 100                   | 117               | 120                    | 144               | 147                 | 207               | 110                 | 133               | 117                   | 139               |
| July.....   | 114                 | 125               | 113                 | 133               | 100                   | 114               | 119                    | 135               | 149                 | 181               | 110                 | 120               | 116                   | 136               |
| August.....   | 113                 | 123               | 114                 | 132               | 98                    | 114               | 117                    | 134               | 152                 | 203               | 109                 | 124               | 111                   | 129               |
| September.....  | 112                 | 122               | 113                 | 134               | 98                    | 116               | 119                    | 142               | 155                 | 211               | 103                 | 125               | 115                   | 138               |
| October.....  | 112                 | 123               | 113                 | 136               | 98                    | 111               | 121                    | 147               | 155                 | 219               | 109                 | 131               | 117                   | 134               |
| November.....   | 117                 | 141               | 116                 | 141               | 99                    | 117               | 123                    | 156               | 158                 | 224               | 107                 | 129               | 117                   | 144               |
| December.....   | 122                 | 156               | 119                 | 156               | 101                   | 125               | 124                    | 164               | 160                 | 234               | 109                 | 135               | 119                   | 158               |
| 1917.   |                     |                   |                     |                   |                       |                   |                        |                   |                     |                   |                     |                   |                       |                   |
| January.....  | 123                 | 157               | 117                 | 152               | 100                   | 123               | 123                    | 160               | 164                 | 246               | 109                 | 134               | 122                   | 163               |
| February.....   | 123                 | 159               | 116                 | 151               | 100                   | 125               | 124                    | 158               | 165                 | 242               | 108                 | 137               | 122                   | 161               |
| March.....  | 122                 | 156               | 116                 | 153               | 100                   | 127               | 125                    | 164               | 168                 | 257               | 107                 | 142               | 123                   | 162               |
| April.....  | 119                 | 145               | 113                 | 150               | 99                    | 124               | 122                    | 154               | 167                 | 241               | 106                 | 138               | 120                   | 154               |
| May.....  | 118                 | 152               | 115                 | 163               | 99                    | 129               | 124                    | 166               | 172                 | 286               | 104                 | 141               | 120                   | 173               |
| June.....   | 120                 | 165               | 116                 | 166               | 99                    | 137               | 123                    | 169               | 173                 | 286               | 102                 | 136               | 119                   | 172               |
| July.....   | 117                 | 153               | 111                 | 153               | 99                    | 137               | 121                    | 166               | 175                 | 267               | 102                 | 128               | 119                   | 173               |
| August.....   | 110                 | 153               | 111                 | 152               | 97                    | 131               | 118                    | 161               | 180                 | 296               | 100                 | 128               | 116                   | 168               |
| September.....  | 105                 | 150               | 113                 | 155               | 97                    | 135               | 120                    | 165               | 179                 | 290               | 98                  | 128               | 119                   | 176               |
| October.....  | 107                 | 151               | 112                 | 158               | 97                    | 137               | 121                    | 176               | 182                 | 343               | 96                  | 134               | 122                   | 192               |
| November.....   | 115                 | 171               | 116                 | 174               | 99                    | 155               | 122                    | 189               | 183                 | 347               | 97                  | 134               | 125                   | 208               |
| December.....   | 115                 | 202               | 118                 | 180               | 100                   | 163               | 124                    | 195               | 183                 | 335               | 96                  | 133               | 128                   | 216               |
| 1918.   |                     |                   |                     |                   |                       |                   |                        |                   |                     |                   |                     |                   |                       |                   |
| January.....  | 116                 | 201               | 113                 | 169               | 99                    | 158               | 121                    | 182               | 182                 | 317               | 94                  | 123               | 122                   | 205               |
| February.....   | 117                 | 199               | 113                 | 166               | 94                    | 150               | 123                    | 183               | 182                 | 322               | 96                  | 126               | 120                   | 189               |
| March.....  | 117                 | 210               | 116                 | 178               | 98                    | 166               | 124                    | 207               | 184                 | 336               | 97                  | 144               | 125                   | 219               |
| April.....  | 113                 | 205               | 110                 | 182               | 96                    | 169               | 124                    | 209               | 184                 | 336               | 96                  | 147               | 124                   | 229               |
| May.....  | 111                 | 205               | 109                 | 185               | 95                    | 173               | 123                    | 213               | 186                 | 360               | 95                  | 151               | 122                   | 224               |
| Per cent of increase in per capita earnings in May, 1918, over January, 1915..... | 85                  |                   | 69                  |                   | 82                    |                   | 73                     |                   | 94                  |                   | 58                  |                   | 84                    |                   |

## INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, FEBRUARY, MARCH, OR NOVEMBER, 1915 TO MAY, 1918.

[January, 1916=100.]

| Month and year.   | Automobile manufacturing. |                   | Car building and repairing. |                   | Cigar manufacturing. |                   | Men's ready-made clothing. |                   | Leather manufacturing. |                   | Paper manufacturing. |                   |
|---|---------------------------|-------------------|-----------------------------|-------------------|----------------------|-------------------|----------------------------|-------------------|------------------------|-------------------|----------------------|-------------------|
|   | Number on pay roll.       | Amt. of pay roll. | Number on pay roll.         | Amt. of pay roll. | Number on pay roll.  | Amt. of pay roll. | Number on pay roll.        | Amt. of pay roll. | Number on pay roll.    | Amt. of pay roll. | Number on pay roll.  | Amt. of pay roll. |
| 1915.   |                           |                   |                             |                   |                      |                   |                            |                   |                        |                   |                      |                   |
| February.....   |                           |                   | 71                          | 71                |                      |                   | 98                         | 98                |                        |                   |                      |                   |
| March.....  |                           |                   | 79                          | 87                | 106                  | 91                | 92                         | 86                |                        |                   |                      |                   |
| April.....  |                           |                   | 67                          | 71                | 91                   | 88                | 80                         | 70                |                        |                   |                      |                   |
| May.....  |                           |                   | 86                          | 92                | 98                   | 93                | 94                         | 86                |                        |                   |                      |                   |
| June.....   |                           |                   | 87                          | 98                | 94                   | 95                | 94                         | 94                |                        |                   |                      |                   |
| July.....   |                           |                   | 92                          | 106               | 96                   | 100               | 97                         | 106               |                        |                   |                      |                   |
| August.....   |                           |                   | 89                          | 93                | 92                   | 95                | 84                         | 86                |                        |                   |                      |                   |
| September.....  |                           |                   | 95                          | 99                | 97                   | 94                | 80                         | 84                |                        |                   |                      |                   |
| October.....  |                           |                   | 100                         | 112               | 107                  | 110               | 84                         | 95                |                        |                   |                      |                   |
| November.....   | 99                        | 108               | 105                         | 115               | 109                  | 116               | 89                         | 106               | 97                     | 91                | 85                   | 91                |
| December.....   | 100                       | 102               | 96                          | 134               | 107                  | 111               | 81                         | 90                | 101                    | 102               | 96                   | 99                |
| 1916.   |                           |                   |                             |                   |                      |                   |                            |                   |                        |                   |                      |                   |
| January.....  | 100                       | 100               | 100                         | 100               | 100                  | 100               | 100                        | 100               | 100                    | 100               | 100                  | 100               |
| February.....   | 112                       | 111               | 104                         | 121               | 95                   | 94                | 98                         | 105               | 112                    | 111               | 105                  | 109               |
| March.....  | 114                       | 117               | 109                         | 133               | 99                   | 97                | 100                        | 106               | 111                    | 105               | 103                  | 106               |
| April.....  | 112                       | 114               | 109                         | 133               | 93                   | 96                | 97                         | 107               | 110                    | 108               | 104                  | 107               |
| May.....  | 113                       | 118               | 109                         | 135               | 90                   | 97                | 102                        | 105               | 106                    | 109               | 106                  | 112               |
| June.....   | 109                       | 116               | 111                         | 135               | 91                   | 99                | 104                        | 115               | 103                    | 112               | 108                  | 118               |
| July.....   | 116                       | 106               | 108                         | 128               | 91                   | 100               | 105                        | 120               | 105                    | 112               | 107                  | 117               |
| August.....   | 117                       | 121               | 109                         | 127               | 90                   | 98                | 97                         | 118               | 108                    | 118               | 108                  | 122               |
| September.....  | 123                       | 133               | 112                         | 131               | 94                   | 107               | 93                         | 113               | 99                     | 111               | 103                  | 118               |
| October.....  | 132                       | 148               | 112                         | 135               | 98                   | 113               | 96                         | 116               | 109                    | 129               | 104                  | 122               |
| November.....   | 129                       | 155               | 118                         | 148               | 94                   | 110               | 102                        | 124               | 113                    | 131               | 102                  | 123               |
| December.....   | 125                       | 137               | 117                         | 156               | 97                   | 117               | 93                         | 114               | 116                    | 140               | 114                  | 137               |
| 1917.   |                           |                   |                             |                   |                      |                   |                            |                   |                        |                   |                      |                   |
| January.....  | 133                       | 137               | 111                         | 136               | 97                   | 111               | 107                        | 117               | 124                    | 141               | 118                  | 135               |
| February.....   | 134                       | 149               | 112                         | 134               | 98                   | 113               | 107                        | 123               | 121                    | 145               | 117                  | 135               |
| March.....  | 135                       | 158               | 109                         | 142               | 100                  | 117               | 110                        | 132               | 119                    | 142               | 117                  | 136               |
| April.....  | 133                       | 153               | 104                         | 131               | 93                   | 107               | 110                        | 124               | 114                    | 133               | 116                  | 135               |
| May.....  | 130                       | 156               | 105                         | 146               | 92                   | 114               | 113                        | 135               | 109                    | 133               | 113                  | 141               |
| June.....   | 125                       | 147               | 104                         | 145               | 94                   | 119               | 117                        | 143               | 105                    | 129               | 115                  | 143               |
| July.....   | 117                       | 142               | 108                         | 136               | 94                   | 118               | 113                        | 149               | 103                    | 125               | 111                  | 139               |
| August.....   | 120                       | 137               | 107                         | 148               | 87                   | 108               | 109                        | 141               | 102                    | 130               | 103                  | 138               |
| September.....  | 125                       | 155               | 96                          | 133               | 92                   | 116               | 103                        | 137               | 102                    | 136               | 109                  | 143               |
| October.....  | 127                       | 161               | 103                         | 157               | 99                   | 128               | 101                        | 139               | 103                    | 144               | 111                  | 148               |
| November.....   | 122                       | 165               | 109                         | 169               | 104                  | 137               | 105                        | 152               | 111                    | 158               | 111                  | 160               |
| December.....   | 121                       | 158               | 114                         | 172               | 104                  | 136               | 107                        | 158               | 114                    | 171               | 114                  | 159               |
| 1918.   |                           |                   |                             |                   |                      |                   |                            |                   |                        |                   |                      |                   |
| January.....  | 119                       | 141               | 115                         | 157               | 104                  | 131               | 102                        | 147               | 110                    | 163               | 112                  | 147               |
| February.....   | 118                       | 146               | 113                         | 159               | 103                  | 132               | 106                        | 154               | 108                    | 156               | 109                  | 148               |
| March.....  | 124                       | 161               | 113                         | 171               | 106                  | 141               | 102                        | 157               | 105                    | 166               | 113                  | 168               |
| April.....  | 124                       | 164               | 109                         | 170               | 104                  | 142               | 102                        | 153               | 100                    | 162               | 113                  | 170               |
| May.....  | 124                       | 173               | 110                         | 179               | 90                   | 125               | 102                        | 163               | 99                     | 174               | 114                  | 172               |
| Per cent of increase in per capita earnings in May, 1918, over January, 1916..... |                           | 40                |                             | 62                |                      | 37                |                            | 61                |                        | 76                |                      | 50                |

**VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN APRIL, 1918.**

The figures in the following table relating to the condition of employment in Great Britain and Ireland in April, 1918, were compiled from a report published in the British Labor Gazette of May, 1918. Similar information for January was published in the April REVIEW.

No material changes relating to the number of employees in April, 1918, as compared with March, 1918, are shown except in the employment of seamen, where there was the marked increase of 18.9 per cent.

In comparing April, 1918, with April, 1917, as to numbers employed, more important changes are seen. Seamen; the wholesale mantle, costume, and blouse trades (Glasgow); and the tailoring trade show the greatest increases—10.1 per cent, 6.4 per cent, and 5.7 per cent, respectively; while the cotton industry shows a decrease of 13.9 per cent; dock and riverside labor, a decrease of 12 per cent; dress-making and millinery, 9 per cent; and the corset industry a decrease of 8.5 per cent.

The aggregate earnings of employees in April, 1918, as compared with March, 1918, show an increase of 8.8 per cent, 8.7 per cent, 7.7 per cent, respectively, in bookbinding, printing, and tailoring. The largest decrease—2.4 per cent—is shown in the carpet industry.

Comparing April, 1918, with April, 1917, increases in earnings of employees are shown in each industry reporting this item. The most important changes are shown in tailoring, bookbinding, linen manufacturing, and printing, which show increases of 39.4 per cent, 35.2 per cent, 25.9 per cent, and 25.4 per cent, respectively.

## VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN APRIL, 1918, AS COMPARED WITH MARCH, 1918, AND APRIL, 1917.

[Compiled from figures in The Labour Gazette (London), May, 1918.]

| Industries, and basis of comparison.  | Per cent of increase (+) or decrease (-) in April, 1918, as compared with— |              | Industries, and basis of comparison.   | Per cent of increase (+) or decrease (-) in April, 1918, as compared with— |              |
|---|--|--------------|--|--|--------------|
|   | March, 1918.   | April, 1917. |  | March, 1918.   | April, 1917. |
| Coal mining: Average number of days worked . . . . .                                  | + 1.6  | + 3.2        | Other clothing trades:   |  |              |
| Iron mining: Average number of days worked . . . . .                                  | + .3   | - .3         | Dressmaking and millinery—   |  |              |
| Quarrying: Number of employees . . . . .  | - .6   | - 3.3        | Number of employees . . . . .  | - 1.1  | - 9.0        |
| Pig iron: Number of furnaces in blast . . . . .                                       | + .3   | (1)          | Wholesale mantle, costume, blouse, etc.—                                       |  |              |
| Iron and steel works:   |  |              | Number of employees—   |  |              |
| Number of employees . . . . .   | + .4   | + 4.9        | London . . . . .   | + 3.8  | + 3.5        |
| Number of shifts worked . . . . .   | + .7   | + 4.7        | Number of employees—   |  |              |
| Engineering trades: Number of employees <sup>2</sup> . . . . .                        | + .02  | - .35        | Manchester . . . . .   | (1)  | - 4.1        |
| Shipbuilding trades: Number of employees <sup>2</sup> . . . . .                       | + .03  | + .12        | Number of employees—   |  |              |
| Tin-plate, steel, and galvanized sheet trades: Number of mills in operation . . . . . | + .3   | + 6.8        | Glasgow . . . . .  | + .7   | + 6.4        |
| Cotton trade:   |  |              | Corset trade: Number of employees . . . . .                                    | - 1.1  | - 8.5        |
| Number of employees . . . . .   | - .7   | -13.9        | Building and construction of works: Number of employees <sup>2</sup> . . . . . | - .01  | + .13        |
| Earnings of employees . . . . .   | - .6   | + .2         | Sawmilling and machining: Number of employees <sup>2</sup> . . . . .           | + .06  | - .02        |
| Woolen trade:   |  |              | Brick trade:   |  |              |
| Number of employees . . . . .   | (1)  | - 4.8        | Number of employees . . . . .  | - .9   | + .4         |
| Earnings of employees . . . . .   | + 1.7  | +13.1        | Earnings of employees . . . . .  | + .4   | +20.6        |
| Worsted trade:  |  |              | Cement trade:  |  |              |
| Number of employees . . . . .   | - .2   | - 5.6        | Number of employees . . . . .  | - .9   | - 1.3        |
| Earnings of employees . . . . .   | + 3.5  | + 9.8        | Earnings of employees . . . . .  | - .3   | +20.1        |
| Hosiery trade:  |  |              | Paper, printing, and bookbinding trades:                                       |  |              |
| Number of employees . . . . .   | - .2   | - 1.9        | Paper trades—  |  |              |
| Earnings of employees . . . . .   | + 1.7  | +21.3        | Number of employees reported by trade-unions <sup>2</sup> . . . . .            | + .1   | - .1         |
| Jute trade:   |  |              | Number of employees reported by employers . . . . .                            | - 1.1  | - .9         |
| Number of employees . . . . .   | + .1   | - 6.0        | Earnings of employees reported by employers . . . . .                          | - .3   | +21.2        |
| Earnings of employees . . . . .   | (1)  | + 7.1        | Printing trades—   |  |              |
| Linen trade:  |  |              | Number of employees reported by trade-unions <sup>2</sup> . . . . .            | - .1   | + .1         |
| Number of employees . . . . .   | - .9   | + 1.0        | Number of employees reported by employers . . . . .                            | + .4   | - 2.4        |
| Earnings of employees . . . . .   | - 1.0  | +25.9        | Earnings of employees reported by employers . . . . .                          | + 8.7  | +25.4        |
| Silk trade:   |  |              | Bookbinding trades—  |  |              |
| Number of employees . . . . .   | + 4  | - 2.4        | Number of employees reported by trade-unions <sup>2</sup> . . . . .            | - .1   | + .1         |
| Earnings of employees . . . . .   | + 4.9  | +17.5        | Number of employees reported by employers . . . . .                            | + .5   | + 2.3        |
| Carpet trade:   |  |              | Earnings of employees reported by employers . . . . .                          | + 8.8  | +35.2        |
| Number of employees . . . . .   | - 3.7  | - 8.3        | Pottery trades:  |  |              |
| Earnings of employees . . . . .   | - 2.4  | + 3.2        | Number of employees . . . . .  | - 1.0  | - 4.2        |
| Lace trade:   |  |              | Earnings of employees . . . . .  | + .6   | +14.3        |
| Number of employees . . . . .   | - .6   | - 4.2        | Glass trades:  |  |              |
| Earnings of employees . . . . .   | - .3   | +10.5        | Number of employees . . . . .  | + .8   | - 2.4        |
| Bleaching, printing, dyeing, and finishing:   |  |              | Earnings of employees . . . . .  | + 1.3  | +14.1        |
| Number of employees . . . . .   | - 3  | - 4.8        | Food preparation trades:   |  |              |
| Earnings of employees . . . . .   | - 2.0  | +12.2        | Number of employees . . . . .  | + .3   | - 4.6        |
| Boot and shoe trade:  |  |              | Earnings of employees . . . . .  | + 1.5  | +14.9        |
| Number of employees . . . . .   | - .7   | - 6.1        | Dock and riverside labor: Number of employees . . . . .                        | + 5.6  | -12.0        |
| Earnings of employees . . . . .   | - .3   | +14.2        | Seamen: Number of employees . . . . .  | +18.9  | +10.1        |
| Leather trades: Number of employees . . . . .   | + .6   | - 1.4        |  |  |              |
| Tailoring trades:   |  |              |  |  |              |
| Number of employees . . . . .   | + .1   | + 5.7        |  |  |              |
| Earnings of employees . . . . .   | + 7.7  | +39.4        |  |  |              |
| Shirt and collar trade:   |  |              |  |  |              |
| Number of employees . . . . .   | + 1.2  | - 2.5        |  |  |              |
| Earnings of employees . . . . .   | + 2.1  | +18.9        |  |  |              |

<sup>1</sup> No change.<sup>2</sup> Based on unemployment returns.

## CHINESE LABOR EMIGRATION LAW AND LABOR RECRUITING AGENCY REGULATIONS.

The labor emigration law of China which was promulgated on April 21, 1918, effective the same date, applies to all citizens of the Chinese Republic who are employed as laborers by foreign countries. This law, as published in the Peking Leader for April 23, 1918, is as follows:<sup>1</sup>

ARTICLE I. All citizens of the Chinese Republic who are employed as laborers by foreign countries shall be called emigrant laborers.

ART. II. The emigration of laborers shall be divided into the following classes: (1) Those selected and sent abroad by the Government; (2) those recruited directly by foreign agencies; (3) those recruited by contractors.

ART. III. An emigrant laborer at the time of employment shall be required to possess the following qualifications: (1) Age from 20 to 40 years; (2) sound and healthy body; (3) free from contagious diseases; (4) possessing no bad habits; (5) having good conduct and committed no criminal offenses.

ART. IV. The emigration of those laborers of class 2 shall be reported to and sanctioned by the labor emigration bureau.

ART. V. The report on the emigration of class 2 laborers shall enumerate the following points: (1) Names of the country and its specific locality for which the laborers are employed; (2) name of the agency by which they are recruited; (3) the kind of labor for which they are employed.

ART. VI. Without a special permit from the labor emigration bureau, no contractors shall be allowed to undertake the recruiting business.

ART. VII. The recruiting of labor [shall] be governed by the Chinese labor recruiting regulations.

ART. VIII. All contracts for Chinese labor, except those made by the Government, shall be referred to the labor emigration bureau for its approval. These contracts shall be made in accordance with the labor contract regulations. The labor contract regulations shall be promulgated by the labor emigration bureau.

ART. IX. All laborers going abroad shall be required to provide themselves with passports issued by the labor emigration bureau. All passports heretofore issued by the various organs to emigrant laborers shall be considered null and void after the promulgation of this law.

ART. X. At least 20 per cent of the wages of an emigrant laborer shall be set apart for his family expenses. This sum shall be deducted from his wages by his employer every month and handed to the director of the labor emigration bureau of the cabinet, who shall remit it to a branch [bank] in China designated by the director of the labor emigration bureau and the said bank shall forward the money to the laborer's family. If the laborer is without a family, the money shall be deposited in the bank till the laborer comes home and claims it.

ART. XI. All interpreters in connection with the emigrant labor service shall be required to secure permits from the labor emigration bureau before they receive employment.

ART. XII. In recruiting labor, if any proceedings have been specified by treaties, such proceeding shall be observed.

ART. XIII. The fees to be paid to the Government by laborers on the departure abroad shall be collected by the labor emigration bureau or its subbureaus in the localities in which the labor is recruited.

<sup>1</sup> Data furnished by the Bureau of Foreign and Domestic Commerce, Department of Commerce.



ART. XIV. If circumstances warrant, labor emigration commissioners shall be appointed to the countries or specific places in which Chinese laborers are employed. These commissioners shall be appointed by the Premier upon the recommendation of the labor emigration bureau. Members of the Chinese legations or consulates near the places of the laborers may be authorized to act in such capacity.

ART. XV. Local authorities who assist in the recruiting of labor shall be required to report the procedure through the highest official of the locality to the labor emigration bureau.

ART. XVI. This law shall take effect on the day of promulgation.

Certain regulations governing the filing of applications by those who would be labor recruiting agents and controlling the activities of these agents were also promulgated on April 21, 1918, and published in the Peking Leader for April 23. These labor recruiting agency regulations are as follows:

ARTICLE I. All persons engaged in recruiting Chinese labor, whether individuals or firms, shall be called labor-recruiting agents.

ART. II. Those who wish to be labor-recruiting agents shall be required to make application to the labor emigration subbureau of the locality or the head bureau through its local representatives. The applications shall embody the following details: (1) Name, age, native place, present address, and personal record of the applicant; (2) the location of the office or suboffice of the agency; (3) the total amount of capital for the undertaking; (4) all the requirements enumerated in the articles 10, 82, 98, or 232 of the corporation law.

ART. III. Those who are under the following conditions shall not be allowed to be labor-recruiting agents: (1) Their civil rights having been deprived of; (2) having been declared bankrupt; (3) having been declared unqualified to administer property; (4) having been punished for violation of this law and during the three years following the punishment; (5) agency having been dissolved by this law during the year ensuing the dissolution.

ART. IV. If an agent fail to commence his business one month after the granting of license, the license shall be considered null and void.

ART. V. Every time labor is recruited the agent shall be required to make application to the local labor emigration subbureau or to the head bureau through its representatives. The application shall embody the following details: (1) Name of the applicant, individual, or company; (2) the place in which the recruiting shall be held; (3) names of the countries and their specific place for which labor is recruited; (4) the kind of labor to be recruited; (5) the number of men to be recruited; (6) a copy of the contract signed between the foreign employer and the recruiting agent; (7) a copy of the contract signed between the employers and employees. The contract referred to in clause 6 shall not violate Article VIII of the labor emigration law. If it is written in a foreign language, the foreign text shall be accompanied by a Chinese translation.

ART. VI. No agent shall be allowed to recruit labor outside the areas sanctioned by the labor emigration bureau.

ART. VII. The assembling and departure of recruited laborers shall be reported by the agents concerned to the local labor emigration subbureau or representatives of the head bureau for official supervision.

ART. VIII. Any agent when obtaining the permission of the labor emigration bureau in accordance with the above Article II, shall be required to give a security for license and when obtaining the bureau's permission in accordance with Article V shall also be required to give security. If an agent fail to pay the security either wholly or partially the license shall be canceled. The security for license shall be \$10,000; the

minimum for the latter security shall be \$5,000. The latter amount shall be increased by the labor emigration bureau when the number of recruits is over 2,500.

ART. IX. The securities shall be paid in national bonds or Government certificates whose sum shall not exceed 30 per cent of the whole amount.

ART. X. The security for license shall be refunded when the agent concerned applies for the cancellation of the license. The security for recruiting shall be refunded a year after the expiration of the employment contract.

ART. XI. Besides compensation and expenses provided for in the contract, no other commission shall be demanded by agents from laborers.

ART. XII. The date of departure of laborers shall be announced to them at the time of recruiting. If the departure is delayed not by unavoidable circumstances, the laborers shall be allowed to demand from the agents indemnity for whatever damage they have suffered.

ART. XIII. When any agent fails to comply with the terms of a contract the laborers concerned shall be allowed to petition to the local labor emigration subbureau or the bureau's representatives for assistance in the enforcement of the terms. Any expense incurred in the assistance shall be defrayed by the agents out of the security funds by the labor emigration bureau.

ART. XIV. If any agent is guilty of the following misdemeanors, his business permit shall be canceled and license withdrawn: (1) Violations of these regulations; (2) disturbance of public order and peace; (3) ill-treatment of laborers. In the last case damages sustained by the laborers through the cancellation of business permit shall be indemnified by the agent concerned. The amount of damage thus incurred shall be ascertained and made good with [from] the agent's security by the labor emigration bureau.

ART. XV. If any agent is found recruiting laborers by dishonest means in addition to the cancellation of his business permit, he shall be punished with life imprisonment or imprisonment of the second grade, and his security shall be confiscated.

ART. XVI. Any agent who wishes to carry on trade directly concerning the laborers shall be required to make application to the labor emigration bureau as follows: (1) The kind of trade and the place for it; (2) the amount of capital; (3) the plan for the business.

ART. XVII. Any agent who recruits labor secretly and in violation of the regulations shall be punished with imprisonment of the fifth grade with hard labor, or fined not more than \$1,000 nor less than \$100.

ART. XVIII. All agencies, which have been established with the permission of the proper authorities before the promulgation of these regulations, shall be allowed to continue their business as usual, but shall be required to apply to the labor emigration bureau for licenses.

ART. XIX. All agencies which have been established without permission of proper authorities, before the promulgation of these regulations, shall be required to apply to the labor emigration bureau for licenses within three months after the promulgation of these regulations.

ART. XX. These regulations shall take effect upon the day of promulgation.

## INDUSTRIAL ACCIDENTS.

### CAUSATION OF INDUSTRIAL ACCIDENTS, GREAT BRITAIN.

The report of an investigation made by H. M. Vernon, M. D., of the factors concerned in the causation of industrial accidents was issued in February, 1918, as Memorandum No. 21 of the Health of Munition Workers Committee.<sup>1</sup> In the course of the investigation 50,093 accidents occurring in four munition factories during periods ranging from 9 to 25½ months were analyzed. The injuries analyzed were cuts, foreign bodies in the eye, burns, sprains, and injuries incurred one or more days before they were first treated. The author states that the factors concerned in accident production may be classified as those of personal origin—such as nervous and muscular coordination in relation to speed of production, fatigue, psychical influence, nutrition, and alcohol consumption—and those depending on external conditions not directly under the workers' control—lighting; temperature, humidity, and ventilation; and defects of machinery and absence of guards. While the author admits that "no attempt whatever has been made to investigate certain factors, such as defects of machinery and absence of guards,"<sup>2</sup> he reaches the conclusion that probably the majority of industrial accidents are unavoidable and that "accidents depend, in the main, on carelessness and lack of attention of workers."

Study of occurrence of accidents in relation to output showed that in one factory making fuses, during the morning spell of work, the number of accidents increased with the output, both accidents and output reaching a maximum in the last or next to the last full hour of work. The author concludes that this increase of accidents was "due partly to increasing speed of production and partly from increasing inattention arising from thoughts of pleasure to come." Among the night workers, on the other hand, though the output followed a course similar to that of the day-shift output, the accident incidence, except that of eye accidents, was entirely different. The

<sup>1</sup> Great Britain. Ministry of Munitions. Health of Munition Workers Committee. Memorandum No. 21: An investigation of the factors concerned in the causation of industrial accidents. London, February, 1918. 46 pp.

<sup>2</sup> The United States Bureau of Labor Statistics has approached this subject from a different angle. In its studies of causes of accidents it has given careful consideration to the engineering problems in industry as well as the human side, and its investigations have invariably indicated that a very large proportion of accidents is due to lack of proper guards on machines, defective machinery and tools, inadequate lighting, improper building construction, and unwise location of railway tracks and runways for cranes. There is some doubt as to the wisdom of considering the human element, as appears to be done in the report here reviewed, without first seeking to correct the very great dangers that often arise from lack of attention to these engineering problems.

maximum number of accidents occurred at the beginning of the shift and fell gradually during the night to about half its initial value. This is attributed to "the fact that the night-shift workers started work in a careless and excited state and calmed down gradually during the night." In the other three factories, where 6, 9.2, and 15 inch shells were made, there was very little hourly variation in the speed of production and the accident incidence was correspondingly steady.

The influence of fatigue on accidents to women was shown by the fact that the 12-hour day worked in the fuse factory caused such fatigue in the women as to make the number of accidents occurring among them  $2\frac{1}{2}$  times as great as in a subsequent period during which they worked a 10-hour day. Reduction of hours from 12 to 10 per day had no effect on the number of accidents among the male workers. The report states that:

Even during the 10-hour day the women showed distinctly more signs of fatigue than the men did during the 12-hour day, not only by reason of the above-mentioned ratios between afternoon and morning accidents, but because the women showed a more rapid increase of accidents in the course of the morning spell of the 10-hour day than the men did in the same spell of the 12-hour day. Probably women would need to have their working day reduced to 9 hours before they escaped fatigue as successfully as the 12-hour day men. A 12-hour day of actual work in industrial pursuits was almost unknown in this country before the War, and has been exceptional during the War, so we may confidently conclude that as a rule fatigue has but little influence in the causation of accidents in men. If men worked longer than a 12-hour day, or even if they worked 12 hours or less upon heavier types of work than those imposed on them at the fuse factory, they would doubtless be liable to fall into the condition of excessive fatigue shown by the women.

In a discussion of the comparative frequency of accidents among the day shift and among the night shift, Dr. Vernon states that the alcohol consumption factor, in so far as it operates at all, must tend to increase night-shift accidents more than day-shift accidents. Artificial illumination, he said, had the same tendency; the excess of eye accidents occurring during the night shift over those occurring during the day shift was shown to be due to artificial lighting. The report states that temperature had a decided effect on accident occurrence, since "accidents increased considerably as the weather grew colder, and diminished as it grew warmer. In one factory, accidents among women were nearly  $2\frac{1}{2}$  times as numerous when the temperature was at or below freezing point as when it was above 47 degrees, while among men they were twice as numerous." The author points out that inasmuch as lower temperatures were experienced during the night-shift hours, accidents would tend to be more numerous then, and after study of accident incidence at various temperatures he recommends as the optimum temperature in munition factories one of 60° to 64° F.

Notwithstanding all these factors tending to increase night-shift accidents over day-shift accidents, it was found that, grouping all kinds of accidents together, fewer accidents—16 per cent less among the women and 15 per cent less among the men—occurred during the night shift than during the day shift. The author concludes that the determining cause was the influence of the psychical factor—the workers' mental attitude.

The following suggestions as to accident prevention are given:

In the first place, it is well to recognize that many industrial accidents, probably the majority of them, are unavoidable, and that at best one can only hope to reduce their number, and never to eliminate them entirely. Moreover, we have seen that speed of production is an extremely important factor in their causation, and often the most important factor of all, so any improvement of factory conditions which increases speed of production inevitably tends to a more than proportional increase of accidents. Accidents depend, in the main, on carelessness and lack of attention of the workers, and so the more one can eliminate this lack of attention and increase the concentration of the worker upon his work, the more will accidents be reduced. As has already been pointed out, one wants to induce in all the workers throughout their hours of labor the same mental outlook as is present in the night-shift workers in the early hours of the morning. These workers have for the most part forgotten the pleasures and excitements indulged in shortly before coming on to night shift, and they have nothing but an unexhilarating breakfast and bed to look forward to. Such a mental state is impossible of achievement by the day-shift workers, but something in the way of mental calm and equilibrium can be attained by stopping all conversation except that relating to the work in hand. If the workers would consent to it it would be a good plan to induce temporary deafness by plugging the ears, and so shut out the noise of the machinery, which is in itself an important cause of distraction and fatigue. Again, if it were practicable—though it is seldom that it can be so—it would be of value to shut out the sight of surrounding objects by separating the lathes or other machines from one another by partitions. The worker, left to himself without sound or sights to distract his attention, could then concentrate himself entirely on the work in hand. It might be said that the monotony would be so great that nobody would stand it, but would it not be better to work for, e. g., two 3 or 3½ hour spells every day under such conditions if the worker could thereby earn as much as he does under present conditions in two 4-hour spells? However, these conditions are mentioned only as an ideal, which should be aimed at wherever possible.

The careless habit of mind can also be diminished by stricter sobriety. There can be no doubt that the less alcohol the worker consumes the better it is for the quality and quantity of his work, and for his accident immunity. This applies especially to alcohol consumed by the day shift in the dinner hour and by the night shift shortly before coming on to work. The inclination of the day-shift worker to drink during his dinner hour can be combated to some extent by establishing factory canteens, where good food is obtainable at cost price, or slightly below it. The worker would then find it more convenient to stay in the works during his dinner hour than to go home, and so would escape the temptation of drinking. \* \* \*

The production of excessive fatigue with its accompanying increase of accidents can be almost entirely avoided by choosing suitable hours of labor. It can also be combated by the introduction of seats for the standing workers to rest on occasionally when they are not actually working, and of the most suitable seats possible for sedentary workers. \* \* \*



We have seen that even moderately defective lighting produced a considerable increase of eye accidents, and it is probable that it had some effect on other types of accident as well, though it was not big enough to be detectable. Hence the adequacy of the lighting of a factory should be tested from time to time by an expert, whilst the eye accidents could be reduced or eliminated by the use of suitable goggles. Though it might not be worth while to insist on the majority of the workers using these goggles, it should be made a rule that they be worn by the grinders of tools, and other specially exposed workers.

The importance of the temperature factor in accident causation is so evident as to need but little discussion. Thermometers ought to be installed in the shops, and be consulted regularly by those in control of the heating. \* \* \*

And finally it may be asked: To what extent would these remedial measures reduce accidents if they were adopted thoroughly? No definite answer can be given, as the improvement produced must needs vary greatly in different factories. \* \* \* But there can be no doubt that some reduction of accidents is possible at every factory, though it may be only 10 per cent or 20 per cent in a well-managed factory, or 50 per cent in a badly managed one. In all large factories the factors concerned in accident causation should be worked out as fully as possible, and the effects of the remedial measures be thoroughly tested.

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#### INDUSTRIAL ACCIDENTS IN TENNESSEE.

The Fifth Annual Report<sup>1</sup> of the Department of Workshop and Factory Inspection of the State of Tennessee contains a section on industrial accidents in which are listed 26 fatal, and 1,465 nonfatal injuries reported by 236 establishments, with a time loss to victims in nonfatal accidents of 14,139 days and a wage loss of \$29,408.50, or an average of \$20.07 per injured man. Adding to this the estimated wage loss of \$130,000 in case of the 26 deaths, a total wage loss of \$159,408.50 is obtained. Tables in the report indicate that the largest number of accidents occurred in the pig-iron industry (249 or 16.7 per cent) and in railroad shops (205 or 13.7 per cent); and that, by cause, 309, or 20.7 per cent of all accidents, were due each to machinery and to falling objects. By occupations, the largest number of accidents occurred among laborers and among machinists and helpers, each group having 91 or 6.1 per cent, and among sawyers and helpers (84 or 5.6 per cent). The wage loss was highest among machinists and helpers, being \$4,998.05, or 17 per cent of the entire wage loss in nonfatal cases. As is usual, most of the injuries were to fingers, the number being 321, or 21.5 per cent of all injuries. There were 151 (10.1 per cent) eye injuries.

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<sup>1</sup> Fifth Annual Report of the Department of Workshop and Factory Inspection of Tennessee. Dec. 1, 1916, to Dec. 31, 1917. Nashville [1918]. Pp. 60-76.



## WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

### WORKMEN'S COMPENSATION REPORT FOR CALIFORNIA, 1916-17.

The report of the Industrial Accident Commission of California for the year ending June 30, 1917,<sup>1</sup> gives a comprehensive statistical study of 657 fatal injuries, 1,709 permanent injuries, and 92,513 temporary injuries, or a total of 94,879 injuries reported during the year 1916. Comparative figures show that this as a marked increase over the preceding year in the number of industrial injuries—an increase of 23.26 per cent in the number of fatalities, an increase of 35.20 per cent in the number of permanent injuries, and an increase of 40.72 per cent in the number of temporary injuries. Taking all classes together the increase was 40.48 per cent over 1915.

There is scarcely any other way to account for the increase of 445 permanent and 26,772 temporary injuries in 1916 than the increase in the production of war material and the speeding up of this production, evidences of which we can see from all sides.

The report notes a total of 18,328 individual acceptances of the compensation act, and calls attention to the fact that 4,918 employers exempted from the provisions of the act voluntarily accepted the law. During the year, 1,653 applications for adjudication of claims were decided by the commission, compensation being awarded in 61 per cent and denied in 22.9 per cent of the cases. The total awards in these cases amounted to \$944,122.62, or an average of \$571.16 per case; the average in the death cases was \$2,444.79.

It appears from this report that the total compensation, medical, and surgical benefits recorded as paid as of June 30, 1917, amounted to \$2,676,088.37, of which \$266,346.52 was paid on account of fatal cases, \$683,311.85 on account of permanent injuries, and \$1,726,430 on account of temporary injuries. Of the total benefits paid, \$1,109,072.82 was expended for medical aid and \$1,567,015.55 for compensation. In addition, \$21,659.01 was expended for burial rites. These figures represent an average of \$884.66 compensation paid in 283 fatal cases and an average of \$93.47 paid for medical aid in 171 fatal cases; an average of \$397.82 paid for compensation in 1,370 cases of permanent injury, and an average of \$115.91 paid for medical aid in 1,193 such cases; also an average of \$50.90 compensation paid in 15,161 cases of temporary disability and an average of \$15.73 paid for medical aid in 60,680 cases of this kind.

<sup>1</sup> Report of the Industrial Accident Commission of the State of California from July 1, 1916, to June 30, 1917. Sacramento, 1917. 158 pp.

The total amount paid in benefits of various kinds must not, of course, be confused with the amount of the awards made in each classification. Thus awards were made in 288 fatal cases, amounting to \$708,998.63, or an average of \$2,461.80 per case, and in 1,372 permanent injury cases, amounting to \$860,186.56, or an average of \$626.95 per case.

It is stated that insurance companies assumed the burden of paying 75.98 per cent of the total compensation and medical benefits arising out of injury cases occurring in 1916, this proportion being a slight increase (2.91 per cent) over the amount paid by them in 1915. It is also noted that there was an increase in the number of injuries covered by State and private insurance companies in 1916, 71.65 per cent of all injuries being reported by insurance companies as against 66.34 per cent in 1915.

The report presents numerous tables showing causes of injuries and amount of compensation and other benefits paid under each specified cause, the average age and wage of injured employees, parts of the body affected, and other data usually found in reports of this kind. Some of the more important facts may be summarized:

Of 657 fatal injuries, the largest percentage (35.2 per cent) occurred in transportation and the largest total benefits, amounting to \$109,301.10, were also in transportation. The cause of the largest number of fatalities was collisions and jams (182, or 27.7 per cent). Most of those in the fatality group (326, or 49.6 per cent) were receiving wages of \$10 to \$19 per week, the average wage for all those fatally injured being \$19.10.

Of 1,709 permanent injuries, 623, or 36.5 per cent, occurred in manufacturing, the benefits paid amounting to \$220,033.42; the largest number of those injured, 895, or 52.4 per cent, was in the \$10 to \$19 wage group; 202, the second largest proportion (injuries to fingers being first), suffered eye injuries.

Of 92,513 temporary injuries, 53,783 (58.1 per cent) caused the loss of one day or more, making a total of 883,146 days lost; there were 752 cases of hernia, causing an average time loss of 29.51 days and average compensation amounting to \$31.14. Here again the \$10 to \$19 wage group included the largest number of those sustaining temporary injuries (55.8 per cent).

The following table gives a summary of the workmen's compensation experience in California in 1916:

SUMMARY OF WORKMEN'S COMPENSATION EXPERIENCE IN CALIFORNIA IN 1916.

| Class of injury. | Number of cases reported. | Benefits paid.   |              |                   |                  |             | Total.  |   |
|------------------|---------------------------|------------------|--------------|-------------------|------------------|-------------|---------|---|
|                  |                           | Compensation.    |              |                   | Medical.         |             |         |   |
|                  |                           | Number of cases. | Amount.      | Average per case. | Number of cases. | Amount.     |         | Average per case.                                       |
| Fatal.....       | 657                       | 283              | \$250,361.48 | \$884.67          | 171              | \$15,985.04 | \$93.48 | <sup>1</sup> \$266,346.52<br>683,311.85<br>1,726,430.00 |
| Permanent.....   | 1,709                     | 1,370            | 545,021.07   | 397.82            | 1,193            | 138,290.78  | 115.91  |   |
| Temporary.....   | 92,513                    | 15,161           | 771,633.00   | 50.90             | 60,680           | 954,797.00  | 15.73   |   |

<sup>1</sup> To this should be added \$21,659.01 expended for burial rites.

The report includes a statement of the State compensation insurance fund from January 1, 1914, to June 30, 1917, which is as follows:

|   |                |
|---|----------------|
| Appropriation.....  | \$100,000.00   |
| Premiums written, less premiums returned.....   | 2,811,820.35   |
| Interest received, due, and accrued.....  | 107,130.74     |
| Total.....  | \$3,018,951.09 |
| Expenses and salaries (including adjustment expenses).....  | 357,785.41     |
| Compensation and statutory medical payments.....  | 855,385.64     |
| Unearned premium reserve.....   | 253,154.62     |
| Statutory reserve for outstanding losses (75 per cent of earned premiums less losses and loss expenses paid)..... | 948,696.14     |
| All other disbursements and liabilities.....  | 3,476.86       |
| Total.....  | 2,418,498.67   |
| Total surplus.....  | 600,452.42     |
| Less dividends to policyholders.....  | 268,208.27     |
| Net surplus.....  | 332,244.15     |

A further statement shows that the total premiums earned amounted to \$2,558,665.73 and that the total loss incurred amounted to \$1,381,499.14. Taken in connection with the preceding financial statement, it is found that for every dollar of premium earned the expense of operation was 13.98 cents, while the loss incurred was 53.99 cents per dollar of premium earned.

**WORKMEN'S COMPENSATION REPORT FOR INDIANA, 1917.**

The workmen's compensation experience in Indiana, covering the second year of the operation of the workmen's compensation act, is set forth in the report of the industrial board of the State for the year ending September 30, 1917.<sup>1</sup> "During the period covered by this report there were operating under the law and carrying compensation insurance approximately 50,000 employers; 400 employers carrying their own risk without insurance, having first obtained the permission of the board to that effect, and also 4,000 employers who had duly given notice of their rejection of the law." The number of accidents reported by employers was 42,453, of which 305 resulted fatally and 869 resulted in dismemberments of various kinds. The number of accidents showed a decided increase (17.35 per cent) over the first year when 36,176 were reported, the primary cause of the increase being "first, the employment in industry of young workmen who are not skilled in the work they have to perform; and second, the increased industrial pressure or 'speeding up' on account of the War."

The report notes that \$751,297.40, including 76 lump-sum settlements, amounting to \$59,479.69, was paid out by employers or insurance companies in 12,598 cases during 1917. This is an average of \$59.63 per case. It is stated that the average weekly compensation increased 13.6 per cent over 1916, while the total amount of compensation increased 49.9 per cent over the preceding year. The duration of disability in 57.1 per cent of the cases for which time loss was reported was seven days or less, and the duration of disability in 78.5 per cent of the cases so reported was two weeks or less. The waiting period in Indiana is two weeks. Of 42,640 cases for whom reports on wages received at the time of injury were filed, 56.4 per cent were receiving \$15 or less per week.

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**ANNUITY AND BENEFIT PLANS FOR EMPLOYEES OF THE STANDARD OIL CO.**

The Standard Oil Co. of New Jersey is so large an employer of labor that any action taken by it to meet the needs of aged or disabled employees is of quite general interest. Its recent announcement of a plan for annuities and benefits in case of sickness and accident adds a special ground of interest by its adoption of the compensation principle as embodied in the law of New Jersey, giving it a scope geographically such as no other law has. This is attained by making the provisions of the law cover all cases of accidental injury or death, regardless of the place of occurrence, unless there is a State compensation law covering the locality.

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<sup>1</sup> Report of the Industrial Board of the State of Indiana from Sept. 1, 1916, to Sept. 30, 1917. Indianapolis, 1918. 53 pp.

The provisions contemplated by the company, and indeed in effect at the present time, were set forth in a general letter which appeared in *The Lamp*, a magazine published by the company for its employees. This letter is in the main as follows:

*To all employees:*

The board of directors of this company have adopted an annuity and benefit plan which is of vital interest to every employee, and which is an evidence of the company's interest in its employees and its purpose to cooperate with them in making financial provision for times of sickness, accident, or death.

The following outline gives the essential features of this plan:

I. Annuities (effective Apr. 1, 1918): (a) A regular allowance of 2 per cent of salary for each year of service for all employees at the age of 65 years, after 20 years' service, with a minimum of \$300 per annum and a maximum of 75 per cent of salary. Special provisions for retiring employees less than 65 years of age after 20 and 30 years' service.

(b) Special allowances for employees who are disabled, or whose retirement on account of advancing years is desirable. The amount and duration of such special allowance to be determined according to the merits of each case.

II. Death benefits (effective Apr. 15, 1918): 1. Death from sickness (including accidents off duty). All employees after one year's service are eligible to death benefits of from 3 months' to 12 months' full pay, depending upon length of service, with a minimum of \$500 and a maximum of \$2,000.

Beneficiaries of regular death benefits must be either widow or widower, children, parents, or other dependent blood relatives. In case employee has no such dependents he is allowed to name a beneficiary not in any one of these classes, in which event the amount of the insurance is limited to \$500.

2. Death from accident (incurred while on duty). Payment to be made in accordance with the State compensation law applicable to the case or the New Jersey law.

III. Accident disability benefits (effective Apr. 15, 1918): For accidents incurred by employees while engaged in the actual performance of the duties of his occupation, benefits will be paid in accordance with the provisions of the State workmen's compensation law applicable to the case or the New Jersey law.

IV. Sickness disability benefits (including accidents off duty) (effective May 1, 1918): For disability of more than seven (7) days, for all employees of one year's service, half pay for periods ranging from six weeks to a year, depending on length of service. (Not payable in case salary is continued during sickness.)

The company has arranged so that the death benefits payable under this plan will, until further notice, be paid by the Equitable Life Assurance Society direct to the beneficiaries. Effective April 15, 1918, each employee of this company of one year's service will be covered by insurance for the amount to which he is entitled under this plan, and as soon thereafter as practicable he or she will receive, without physical examination and without personal expense, an individual certificate of insurance, payable in case of death from either sickness or accident. In case of termination of employment for any reason while this insurance is in force, it can be continued in the form of an individual policy, without physical examination, upon payment of the regular premiums.

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The board of directors asks that this plan be accepted by the employees as a genuine expression of good will and of a desire to promote cooperation in the industry in which we are all engaged and in whose success we are all concerned.

W. S. TEAGLE, *President.*

Approved:

A. C. BEDFORD, *Chairman of the Board.*

**CANADIAN GOVERNMENT RAILWAY EMPLOYEES' INSURANCE, MAY, 1890, TO DECEMBER 31, 1917.**

This bureau is in receipt of a communication, through the State Department, from the United States consul at Moncton, N. B. (Canada), giving a brief statement of the business of the Canadian Government Railways Employees' Relief and Insurance Association, covering the period from May, 1890, to December 31, 1917. The statement is issued by the secretary of the association, and from it the following items have been taken:

The expenditure of the regular and temporary features of the association were: Regular features, sick and accident, \$465,029.92; medical and surgical, \$378,946.60; death claims, \$625,207.20; total disability claims, \$143,500; total, \$1,612,683.72; temporary features, accident indemnity, \$61,824.29; surgical attendance, \$39,323; death indemnity, \$30,500; total, \$131,647.29; total expenditure, \$1,744,331.01.

In addition to the above, the American consul adds, the secretary has prepared a memorandum showing the averages paid per member for different periods, for \$1,000 life insurance. The average amount paid monthly per member for \$1,000 life insurance, including the total disability feature, from May, 1890, to December 31, 1917, was \$1.34 per month.



## LABOR LAWS AND COURT DECISIONS.

### FEDERAL CHILD-LABOR LAW DECLARED UNCONSTITUTIONAL.

The act of the Federal Congress regulating interstate commerce in the products of child labor, approved September 1, 1916 (ch. 432, 64th Cong., 1st sess.), was declared unconstitutional by the Supreme Court of the United States on June 3, 1918, four of the nine justices dissenting. (*Hammer v. Dagenhart*, No. 704, October term, 1917.) This case was before the court on an appeal from the United States District Court for the Western District of North Carolina, in which an injunction had been granted against the enforcement of the act on the ground of the unconstitutionality of the law.

No opinion was rendered in the court below, the injunction being granted on the petition submitted by the plaintiffs, who were employed by the Fidelity Manufacturing Co. of Charlotte, N. C. The act in question forbade the shipment in interstate or foreign commerce of articles or commodities produced in any factory within the United States if within 30 days prior to such shipment any child under 14 years of age was employed, or any child under the age of 16 years was employed for more than eight hours per day, or more than six days per week, or between the hours of 7 p. m. and 6 a. m.; nor might such shipment take place from any mine or quarry in which any child under 16 was employed.

The plaintiffs in the case were a father and his two sons, one between 14 and 16 years of age, and therefore coming within the limitation as to hours, while the second was under 14 years of age, and therefore incapable of working at all in the production of interstate goods if the act should be regarded as valid. The father, appearing in behalf of his sons and himself, states that all are legally employed for 12 hours per day under the laws of North Carolina, and that he is himself "entitled to the services of each of said minors until such minor shall have reached the age of 21 years, with the right to direct such services and to receive and enjoy any compensation arising from the rendition of said services." It is added that the father is a man of small means with a large family, and that the income of his sons is necessary for the comfortable support and maintenance of the family; and further that it has been the purpose of each of the plaintiffs to "continue in cotton mill work as their life vocation, plaintiff Roland H. Dagenhart [the father] receiving compensation for said services until they respectively attain their majority, said

minors fitting themselves respectively, during these years, to follow an honorable and suitable vocation for life." The court is petitioned to enjoin the employing corporation against complying with the terms of the act, as it intends to do, by reason of its fear of incurring penalties under it, since by such compliance "it would discharge the minor plaintiff, John Dagenhart, from its employment altogether, and would curtail the hours of employment of the minor plaintiff, Reuben Dagenhart, from the present basis of 60 hours, as is permitted by the laws of North Carolina, and as said Reuben Dagenhart is now employed, to eight hours per day, with the result that there would be an entire loss of the earnings of the minor John Dagenhart, and a corresponding reduction in the earnings of the minor Reuben Dagenhart, received by the plaintiff Roland H. Dagenhart."

It is of interest to note that in this case the father is himself an employee, and not one of the class legislated against in a number of the cotton mill States who are known as "dinner toters," and who are subject to punishment as for vagrancy if they are themselves "able-bodied men who have no other visible means of support," and who "live in idleness upon the wages or earnings of their mother, wife, or minor child or children, except male child or children over 18 years of age." (N. C. Revisal 1905, sec. 3740.)

The grounds advanced for holding the law unconstitutional are that it is not a regulation of commerce, but an attempt to regulate conditions and methods of manufacture, so that it is not within the powers delegated to the Congress of the United States by the Constitution; that its enactment is an attempted usurpation by Congress of the powers reserved to the States, and is therefore in violation of the tenth amendment to the Constitution; and that its enforcement would deprive plaintiffs of their liberty and property without due process of law, thus violating the fifth amendment to the Constitution.

As already stated, the injunction was granted by the judge of the district court without opinion. An appeal was at once taken to the Supreme Court, with the result indicated. In the brief of the appellant it was argued that the act is, both in terms and in fact, a regulation of interstate and foreign commerce, distinguishing sharply between the manufacture, which lies wholly within one State, and the interstate movement. "A manufacturer may, in spite of the act, employ such children as he pleases. So long as he confines within the State of manufacture the shipment of his products the law does not touch him, but springs into activity only when actual transportation without the State begins, and seeks thereupon to prevent the evils which Congress believes to attach to such commerce." Cases were cited to sustain the contention that the power to regulate embraces the power to exclude designated articles from the channels of commerce. The nature of the injury sought to be remedied was

discussed, tracing the development of child-labor legislation and the reasons therefor, and referring to the very general agreement that limitations on the employment of children are essential to the public welfare. The fact that some States have been restrained from taking desired action by reason of fear of unequal competition leading to disastrous results for local industry was recited, an actual instance of the retracing of steps taken because of the unequal conditions resulting being shown. The lack of uniformity in the attitude of the States resulted in preventing the expression of the will of the advanced Commonwealths, and the enforcement upon them of conditions repugnant to their judgment. The consumer also who desired not to encourage what he regarded as morally and socially undesirable and unwise as regards the employment of children had no safeguard in the absence of interstate regulations barring from commerce products which were objectionable to him.

As to the conflict with the constitutional amendments, various cases were cited in support of the opinion that no such conflict existed, acts effecting analogous restrictions of commerce having been held constitutional in a variety of cases. The charge, if not direct, at least by innuendo, that Congress was not acting in entire good faith, but was attempting to do by indirection what it was not authorized to do directly, was disposed of on the ground that "It is well settled that the judiciary can not investigate the motives of the legislature." (Cases cited.) The evil aimed at was that resulting from the interstate transportation of child-made goods. Manufacture for consumption within the State is in nowise restrained, but the law denies the facilities of transit for the purpose of discouraging practices deemed by Congress to be immoral in the initial State, and to prevent harm in the terminal and other States. "Congress directly forbade the use of the interstate stream for an immoral use, and neither directly nor indirectly forbade anything else."

Mr. Justice Day delivered the opinion of the court, which was concurred in by Justices White, Van Devanter, Pitney, and McReynolds. He announced that the controlling question for decision was whether it is within the authority of Congress in regulating commerce among the States to prohibit the transportation in interstate commerce of goods manufactured under the conditions prohibited by the law. That the power to prohibit is within the power to regulate the movement of ordinary commodities was said not to be sustained by the cases cited in support of the contentions advanced by the appellants' briefs. "In each of these instances the use of interstate commerce was necessary to the accomplishment of harmful results. In other words, although the power over interstate transportation was to regulate, that could only be accomplished by prohibiting the use of the facilities of interstate commerce to effect the evil intended."

These cases (lotteries, pure food, white slave traffic, and liquors) were held to be distinguishable from the present case, in which no intrinsic evil is discoverable. "The goods shipped are of themselves harmless. The act permits them to be freely shipped after 30 days from the time of their removal from the factory. When offered for shipment, and before transportation begins, the labor of their production is over, and the mere fact that they were intended for interstate commerce transportation does not make their production subject to Federal control under the commerce power." To sustain a law of this type, therefore, would be to allow all manufactures intended for interstate shipment to be brought under Federal control, to the exclusion of the authority of the States.

As to the point that unequal conditions result in unfair competition, the court said, "There is no power vested in Congress to require the States to exercise their police power so as to prevent possible unfair competition." Thus the economic disadvantages that might be assumed to flow from economic wage loss by reason of minimum wage laws for women or the limitation of their hours of labor did not give Congress the power to deny transportation facilities to those manufacturers whose goods are not produced under corresponding conditions. Recognizing the propriety of fit regulations as to the employment of children in mines and factories, and the desirability of uniformity in such laws, it was held that they were local matters which must remain in the authority of the States for the preservation of our institutions no less certainly than national matters should be intrusted to Federal control. The court was said to be without either authority or disposition to question the motives of Congress in enacting the statute in question, but the necessary effect of the act was said to be to exercise a purely State authority in regulating the hours of labor of children in factories and mines, thus transcending the power of Congress over commerce, and likewise exerting a local authority which did not belong to it. The decree of the district court was therefore affirmed.

A dissenting opinion was written by Mr. Justice Holmes, and concurred in by Justices McKenna, Brandeis, and Clarke. In the beginning of this opinion it is stated that there is but one question involved, and that is as to the right of Congress to exclude from interstate commerce goods produced and marketed under the conditions prescribed by the act, the objection being that in so doing there is an interference by Congress with matters that are exclusively under the control of the States. It was admitted that a direct intermeddling would not be legal, "but if an act is within the powers specifically conferred upon Congress, it seems to me that it is not made any less constitutional because of the indirect effects that it may have, however obvious

it may be that it would have those effects, and that we are not at liberty upon such grounds to hold it void."

Cases were cited to support the position that the power to regulate commerce is unqualified and that this includes the power to prohibit; and, further, that the exercise of this otherwise constitutional power can not be pronounced unconstitutional because of its possible reaction upon the conduct of the States in intrastate matters. "The objection that the control of the States over production was interfered with was urged again and again, and always in vain." A quotation was made to the effect that "A subject matter which has been confided exclusively to Congress by the Constitution is not within the jurisdiction of the police power of the State unless placed there by congressional action," Justice Holmes adding, "I see no reason for that proposition not applying here."

Reference was made to the attitude of the public toward the question of the employment of children, the matter being one on which, if moral conceptions were to be regarded, it would seem that opinion would be unanimous in favor of the law. "But I had thought that the propriety of the exercise of a power admitted to exist in some cases was for the consideration of Congress alone and that this court always had disavowed the right to intrude its judgment upon questions of policy or morals."

The fact that the act does not meddle with internal affairs and the domestic commerce of the States was emphasized; "but when they seek to send their products across the State line they are no longer within their rights. If there were no Constitution and no Congress their power to cross the line would depend upon their neighbors. Under the Constitution, such commerce belongs not to the State, but to Congress to regulate. \* \* \* The public policy of the United States is shaped with a view to the benefit of the Nation as a whole. \* \* \* The national welfare, as understood by Congress, may require a different attitude within its sphere from that of some self-seeking State. It seems to me entirely constitutional for Congress to enforce its understanding by all means at its command."

The effect of this action by the Supreme Court is to terminate the work of the Children's Bureau of the Department of Labor in enforcing the law, though tentative steps have been taken by the Department of Justice looking toward a rehearing of the case. During the year that intervened between the enactment of the law and its coming into effect the usual forecasts of disaster and of inability to operate were made by manufacturers in States whose laws were not equal to the provisions in the Federal Statute, but experience of the several months under the act has not borne out such prognostications. Indeed, despite the compliance with the law and the



shortage of labor due to war conditions, the factories are reported to have produced in excess of the average year under prior conditions, while the financial returns have likewise been most favorable. Less actual opposition was found by those enforcing the law than had been anticipated, employers for the most part accepting the situation as a matter of course. An incidental effect of the statute was the prevention of legislative action in the various States repealing or suspending the operation of State child-labor laws as a war emergency measure, since the making of such changes locally would be inoperative while the Federal statute remained. The existence of this law was said, also, to facilitate the enforcement of State laws. Another sequel to the law is to be found in orders issued by the Secretary of War and the Secretary of the Navy extending the principles of the act to work done in like industries in Government establishments, since it was felt to be incongruous that the Federal Government should impose upon private employers conditions that were not observed by its own departments. It is said that these orders are not likely to be rescinded in spite of the action declaring the law invalid.

Naturally much feeling has been aroused among the friends of the measure, which was enacted as the result of agitation and effort carried on for a number of years. A bill quite similar in form had been introduced into the Senate of the United States as early as January, 1907. Other measures were introduced from time to time, the House of Representatives of the Sixty-third Congress passing a bill on the subject, February 15, 1915; however, the Senate took no action except to place it on the calendar with certain amendments from its Committee on Interstate Commerce. The present act passed the House in the Sixty-fourth Congress on February 2, 1916, by a vote of 337 yeas to 46 nays, and the Senate on August 8, 1916, by a vote of 52 to 12.

The adverse decision of the Supreme Court provoked considerable discussion in the Senate of the United States, and on June 6, three days after its rendition, a bill was introduced to reenact, with slight changes, the provisions of the law declared invalid, adding a section declaring—

That the constitutionality of this act having been declared by the competent authority of Congress and of the President of the United States at the time of its passage shall only be questioned thereafter by Congress itself and by the people of the United States in their sovereign capacity as voters. Any executive or judicial officer who, in his official capacity, denies the constitutionality of this act shall ipso facto vacate his office. No judge of an inferior Federal court shall permit the question of the constitutionality of this act to be raised in the court over which he presides, and the United States Supreme Court shall have no appellate power to pass upon such question.



On the following day a bill was introduced in the House of Representatives limiting the power of Supreme Court judges to declare laws unconstitutional, requiring for that purpose the affirmative vote of not less than three-fourths of the judges sitting in the cause. On the 11th and 13th of June joint resolutions were introduced in the House proposing to amend the Constitution of the United States so as specifically to confer upon Congress the power to prohibit or regulate the employment of children under the age of 16 years; while on the 12th a bill was offered providing a practically prohibitive tax on the employment of children under 16 years of age in mines or quarries, and under 14 in factories. Still another mode of approach was proposed in a bill introduced in the Senate on June 19, adopting the same basis of age and hours of labor as made use of in the law declared unconstitutional by the Supreme Court, but using as the regulative method a denial of the use of the mails by employers not complying with these provisions; while on June 27 a Senate bill was introduced making it unlawful to ship the products of the labor of children into any State within which the sale of such products might be declared by State law to be unlawful; and another proposed the levying of a tax of 25 per cent of the value on such products offered for interstate shipment. Another bill based on the taxing principle was introduced on July 11.

An interesting contemporaneous event is the movement in the State of California so to amend the State constitution as to confer upon the legislature practically complete control of the judicial power of the State, the question to be decided at the general election in November, 1918.

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#### SABOTAGE LAW OF MINNESOTA DECLARED CONSTITUTIONAL.

That the advocacy of criminal syndicalism is a crime and should be severely punished was the opinion of the legislatures which held their sessions in 1917 in Minnesota and Idaho, and which enacted statutes prohibiting this activity. The supreme court of the former State has given its sanction to the law by holding it constitutional, and by declaring the penalty not so severe as to invalidate it.

These acts are summarized in the MONTHLY REVIEW for September, 1917, page 527. The term "criminal syndicalism" is defined in the Minnesota law as: "The doctrine which advocates crime, sabotage (this word as used in this bill meaning malicious damage or injury to the property of an employer by an employee), violence or other unlawful methods of terrorism as a means of accomplishing industrial or political ends."

Matt Moilen and others were indicted in the district court of St. Louis County, Minn., under this statute, for the circulation of certain

posters by placing them upon buildings in the village of Biwabik in that county. One of the defendants was tried separately, and was convicted. Before sentence was pronounced he procured the certification of certain questions of law to the Supreme Court for decision. The questions certified were:

(1) Is the statute on which the prosecution is founded a valid constitutional law? and, if valid, (2) do the facts presented by the indictment and certified record constitute a violation thereof?

By a decision rendered April 19, 1918, both these questions were answered in the affirmative (*State v. Moilen*, 167 N. W. 345). Without doubt, therefore, the conviction will stand and sentence will be imposed by the district court.

The constitutional contention was based upon the alleged violation of the fourteenth amendment to the Constitution of the United States, declaring that no State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor deprive any person of life, liberty, or property without due process of law, nor deny to him the equal protection of the law. A clause of the State constitution prohibiting special or class legislation, also one making unlawful excessive fines and cruel and unusual punishments, were further claimed to be contravened by the act in question. The court said that the contention that the statute violates rights secured by the Federal Constitution was without special merit, and pointed out that it is the province of the legislature to declare what acts, deemed inimical to the public welfare, shall constitute a crime, to prohibit the same, and to impose proper penalties for violation of such prohibition. It recognized that the term "sabotage" includes other and less violent practices, but showed that the legislature had carefully restricted the definition of the crime to the acts expressed in its terms.

The argument that the law is class legislation was based on the fact that it relates only to employer and employee, and protects the employing class to the exclusion of all other persons. It is pointed out that this is not strictly true, for the "other unlawful methods of terrorism" might be used against other classes. But regarding the statute as applying to the relation of employer and employee, it is found that many laws have been passed, and upheld as valid, which apply exclusively to this relation.

The statute makes the advocacy or teaching of the principles condemned, orally or by printed or written matter, punishable by imprisonment for not more than five years, by a fine not exceeding \$1,000, or by both fine and imprisonment. The penalty for voluntary participation in public assemblies for the advocacy or teaching of the same doctrines is imprisonment for not more than 10 years, or a fine not exceeding \$5,000, or both fine and imprisonment. It is held that the prohibition of cruel and unusual punishment does not

apply to these penalties, but that they "do not exceed the limits of legislative discretion."

The final question discussed by the court is whether the circulation of the posters, which were put up during the night, constituted the crime denounced by the law. The posters were small, from 1½ to 2 inches in the largest dimension, and printed in red as well as black, the red being a flag in one case and the background of pictures in the three others. Photographic copies are reproduced in the court's opinion; not, however, in colors. The first showed in the center a snarling black cat, with the words "Beware—Good pay or bum work—I. W. W.—One big union—We never forget—Sabotage" appearing above and below the picture (portions appearing on the original on one line being indicated by the dashes as given here). The words "Beware" and "Sabotage" stand out in large letters. The second had a wooden shoe, with "I. W. W." in small type above, and "Sabotage" below in comparatively large letters, with the quotation "Sabotage means to push back, pull out, or break off the fangs of capitalism. W. D. Haywood." The third had the red flag in the center, with the words "Abolition of the wage system" and a wooden shoe upon it; the words "Industrial unionism" above, and "Join the I. W. W. for freedom" below. The last was a picture of a workman with one hand uplifted, underneath which were the words "Join the one big union." Judge Brown, who delivered the opinion, concluded as follows:

The posters which defendant distributed and caused to be publicly displayed do not attempt to limit the sabotage thus advocated under the captions in large black type, "Beware," and "We never forget sabotage," to the innocent variety. And, taking all the posters together, headed by the one with the snarling black cat, we are clear that the jury were justified in finding that the vicious kind of sabotage was intended and that the public display thereof was an advocacy of such doctrine by the defendant. The whole atmosphere given out by the posters is one of intimidation, indicative of a purpose to incite fear in the employers of labor and to compel submission to labor demands. If defendant intended some innocent phase of the doctrine of sabotage he should have made it appear upon the face of the posters, and, not having done so, the jury was justified in finding that he was advocating sabotage in this offensive form.

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#### WORKMEN'S COMPENSATION LAW OF NEW BRUNSWICK.

Of the 11 Provinces comprising the Dominion of Canada, 7 now have compensation laws. The most recent enactment is that of the Province of New Brunswick, which in April last enacted a law quite similar in its principal features to the Nova Scotia statute enacted the previous year.

This Province has made a gradual approach to the subject, having enacted in 1903 a very comprehensive employer's liability law, embracing certain features usually found only in compensation legis-

lation. It required, however, suits for damages, thus departing from the main characteristic of fixed awards which distinguishes compensation laws from liability statutes, however liberal. In 1914 this act was amended so as to make specific awards in cases of injury or death, thus becoming in effect a compensation statute. It was not regarded as adequate, however, and a commission was appointed by an order in council of January 3, 1917, this commission being authorized "to consider the operation of the Ontario and Nova Scotia acts in their respective areas in regard to their applicability to this Province." A wider range of authority was subsequently granted, enabling them to take into consideration similar acts of European countries, in Australia, New Zealand, and the United States. The result of their investigation led them to settle upon the first-named acts as of most direct availability; and as between the two, that of Nova Scotia was felt to be most nearly appropriate for adoption, industrial conditions in that Province being more closely comparable to those of New Brunswick than were those of the Province of Ontario.

The report of the commission presented no draft of a bill, but did recommend certain departures from the statute of Nova Scotia, some on the side of liberality and some by way of limitation, thus indicating their purpose to follow the Nova Scotia law in its principal provisions. The act provides compensation for injury due both to accident and to industrial diseases, the latter to be classified by regulations established by the board. To give rise to claims for benefits, disability must be continued for more than seven days, but where the right accrues, it would appear that benefits date from the commencement of the disability. The scope of the act is determined by the statute, the industries covered being enumerated. But unfortunately the bill as introduced into the legislative assembly was amended so as to exempt from its provision workmen engaged in logging, stream driving, and associated operations directly connected with lumbering, agreeing in this respect to the regrettable exemption found in the Maine statute, which likewise exempts one of the principal industries of the State, and the one involving the greatest hazard, from any penalty for failing to accept the provisions of the State law. Salesmen and the clerical force connected with any industry, as well as persons whose employment is casual and not for the purpose of the industry, are exempt, together with outworkers and members of the employer's family. Government employees are included under the acts in so far as they are engaged in the industries covered, but policemen and firemen are exempt.

Benefits are based on 55 per cent of the injured employee's wages, but may not in any single case exceed \$3,500. Payments to widows

and invalid widowers continue during life or until the remarriage of the widow, when she receives two years' benefits in a lump sum. Payments of children terminate at the age of 16 years.

For total disability payments may not be less than \$6 per week nor more than \$125 per month, and continue during such disability, subject to the \$3,500 limitation. The act resembles that of Nova Scotia in authorizing special surgical or medical treatment where, in the opinion of the board, it will conserve the accident fund. But it differs from this law in that it authorizes the board to establish regulations requiring first aid to be furnished in all cases. Partial disability, if temporary, is compensated where it causes a wage loss in excess of 10 per cent, wages in excess of \$125 per month not being considered; if permanent, the partial disability is compensated by a proportionate award not in excess of \$1,500. Disfigurement may also be compensated for.

Employers, under the act, must contribute to a provincial accident fund, which is administered by the compensation board. This board also has charge of the entire administration of the act, with appeals to the Supreme Court only on questions of law.

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#### INDUSTRIAL ARBITRATION ACT OF NEW SOUTH WALES.

The widely known industrial arbitration act of New South Wales, enacted in its present form in 1912, has received considerable amendments, notably by an act of the current year (No. 16, Acts of 1918, Mar. 22). Amendments of less import were made by an act of 1916 (No. 81, Acts of 1916, Dec. 20). The act of 1916 made no essential change in the principles of the original act, the most important being the consolidation of procedure as to all classes of industries instead of dividing them into different groups by the Schedules I and II provided for in the act of 1912. Classifications and demarcations may be made by the court of industrial arbitration established by the act, and the procedure was made somewhat more flexible in other respects.

The amendment of 1918 is much more far reaching, beginning with some modifications of definition and procedure, but extending to the creation of new agencies for the consideration and management of industrial problems. Despite the prohibition of strikes and lock-outs contained in the original act, the labor disturbances of the year 1917 in New South Wales resulted in a considerable number of strikes engaged in or encouraged by many of the most important unions of the State, resulting in the cancellation of the registration of the unions involved. One of the provisions of the present act is to authorize the reinstatement of these unions within six months after the passing of



the act, the minister for labor and industry being authorized to take this step with the concurrence of the senior judge of the court by which the cancellation was made. An important change in this connection is a definition of the classes of strikes that are to be henceforth determined to be illegal, the original law having declared all strikes illegal, regardless of their nature or the class of industries affected.

As is well known, the industrial court, under the arbitration act, has the authority to fix minimum wages, and an interesting provision of the present amendment requires that where the minimum wage in any skilled occupation is fixed at a rate above the living wage, it shall be the same in the cases of males and females doing the same class of work. Somewhat restrictive is the provision that the industrial court shall limit its activities as far as is feasible to the determination of wages and hours only, "leaving all other matters to shop committees, conciliation committees, industrial councils, or voluntary committees formed for the purpose of adjusting the industrial relationship of employer and employee." Employees in rural industries are entitled to living wages fixed by the newly created board of trade, but are not otherwise subject to regulation by the act.

Strikes declared illegal are those by employees of the crown or any public agency, including those of the railway commissioners, the harbor boards, boards charged with the care of water supply, sewerage, and irrigation, and of the fire department and the Metropolitan Meat Industry Board; also strikes by the employees in any industry in which employment is at the time wholly or partially regulated by an award or an industrial agreement; but after an award has been in operation as long as 12 months, it may be abrogated by a majority vote of the members of the union affected voting by secret ballot, not less than two-thirds of the members taking part; and lastly, a strike is illegal if commenced prior to the expiration of 14 days after notice in writing of the intention to strike, or complaining of conditions likely to cause a strike. Unions engaging in illegal strikes may be penalized in an amount not exceeding £500 (\$2,433). The minister is authorized at any time during a strike, or when he thinks a strike is contemplated, to prescribe the taking of a secret ballot by the employees affected, for the purpose of discovering their attitude on the matter of striking, or continuing a strike. Individuals aiding or instigating illegal strikes or interfering with the taking of a ballot or otherwise acting contrary to the spirit and purpose of the act may be fined not more than £50 (\$243), or imprisoned not more than six months. Proprietors and publishers of newspapers advising illegal strikes may be fined not more than £100 (\$487). Picketing and blacklisting are also prohibited in connection with illegal strikes.



A new part is added to the act relating to trade-unions, authorizing them to hold property and lease, sell, and otherwise deal with the same as any other owners. Unions may also call upon the courts to enforce the collection of union dues, fines, penalties, etc., except those levied for the purpose of making payments for political objects. The union may lawfully use funds and property for the furtherance of political objects, provided such payments are made out of a separate fund, payment to which shall not constitute a condition of admission to membership. Such funds are exempt from attachment for the enforcement of any order for the payment of any penalty made against the union. Unions also have standing as legal persons to procure the enforcement by the courts of their rules, and to recover damages for a breach of the same; also to enforce agreements with members of the union as to the conditions of labor, agreements between employers and employees, and between unions. Failure of a penalized union to pay the penalty prescribed by the court is to result in the union being dissolved and its assets taken over by a receiver; after the satisfaction of claims, the surplus is to be distributed among the members. Unions are obligated to receive into membership all persons whose occupation or employment is appropriate to such membership, if not "of general bad character"; and membership is to be retained so long as they comply with the rules of the union. Disputes as to the reasonableness of fees, fines, and rules are to be determined by the court, which has power to alter or annul.

A new body is constituted known as the board of trade, consisting of a president, who shall be a judge of the court; a deputy president, and four commissioners. This body is to make public inquiry from year to year as to the cost of living and declare what shall be living wages for adult males and adult females within the State or any defined area thereof. Differences between rural and urban conditions are to be considered and rates fixed accordingly. Wages thus determined are binding, but provision may be made for aged, infirm, or slow workers in rural occupations. The board also has control of apprenticeship, and of technical, trade, and continuation schools. Further powers of a general nature relate to industrial and social welfare in a broad field, including education for employment, social insurance, statistics, cooperation, and welfare measures generally.

Another part of the act provides for the organization of labor exchanges under State management. Besides the placement of labor, the exchanges may undertake training in skilled employment, provide industrial or agricultural training for vagrants and others unsuited for ordinary employment, and engage in such general activities as will further the purpose of their existence. Cooperation with other labor exchanges or licensed private employment agencies is authorized.

Exchanges may also advance transportation expenses for workmen. Private employment agencies must be licensed, and registers maintained. The scale of fees may be prescribed by the governor and no fees may be received other than those thus fixed. Sharing fees with employers is forbidden, and if no employment is secured, the fees must be returned, minus actual expenses in behalf of the applicant.

The concluding section of the act authorizes the minister for labor and industry, on the recommendation of the board of trade, to provide for a system of unemployment insurance, benefits to be paid out of the consolidated revenue fund of the State. No such payments are to be made, however, until it is certified that proper contributions by employers and employees have been made, and a suitable administrative committee representing employers and employees has been appointed.

## INDUSTRIAL POISONS AND DISEASES.

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### INJURIOUS SUBSTITUTES FOR TURPENTINE IN THE PAINTING TRADE.

The dangers caused by the greatly increasing use in Germany of certain substitutes for turpentine are very considerable for the workmen using them, particularly for painters working in closed rooms. Long before the war, approximately since 1901, after the price of the good French and American turpentine had gone up considerably, substitutes of noxious effect had come into use. These substitutes consist predominantly of waste products (Abfälle) of the distillation of benzine and petroleum with the addition of wood turpentine and perfumes or of low-boiling-point hydrocarbons of the benzol series and other existing substitutes. In a treatise on the use and injurious effect of several hydrocarbons and other carbon compounds published in 1910 by Dr. E. Schäfer, former assistant of the factory-inspection service in Hamburg, which has received much attention in technical circles, the so-called 90 per cent benzol has been designated as the most suitable substitute. According to Schäfer, this consists of about 80 to 85 per cent benzol, 13 to 15 per cent toluol, 2 to 3 per cent xylo, and contains as impurities olefins, paraffins, carbon disulphide, and other substances. It is being used predominantly in the chemical industry in the manufacture of coloring substances, pharmaceutical preparations, and perfumes, but is also used as a substitute for benzine and for the much costlier turpentine which is subject to great price fluctuations. Being as volatile as turpentine and a solvent of resins, it is particularly suited for the manufacture of quick-drying ship paints, of preparations for the prevention of rust and boiler scale, and of solvents for resins used in painting, and for many other purposes.

It was soon found that the so-called "crude benzol" (90 per cent benzol which has not been purified) or "solvent naphtha" has the same qualities. In many instances these quick-drying paints contained as liquid vehicle coal-tar substances boiling below 70 degrees and even the directly poisonous carbon disulphide, which in addition to being very injurious to the health is also very inflammable.

Turpentine itself, if worked with in closed rooms and inhaled extensively, may cause dizziness, headache, and stomach troubles. Long-

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<sup>1</sup> Translation of an article in *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands. Gesundheitsschädliche Ersatzstoffe im Maler- und Anstreichergewerbe*, by Otto Streine. Vol. 28, No. 1, Berlin, January 5, 1918, pp. 13 ff.

The substances mentioned are used in this country both in ship and in house painting. See also Bulletin 120 of this bureau, *Hygiene in the painters' trade*, by Alice Hamilton, M. D., pp. 9-14, 40-42.

continued inhalation of turpentine vapors may cause chronic diseases of the liver and kidneys. In working with the above-mentioned substitutes for turpentine, to which, in the course of time, have been added various still more inferior and injurious preparations, these symptoms increase considerably. It should, moreover, be noted that the workmen using these substances, are, as a rule, ignorant of their noxiousness and therefore take no special precautions. Good turpentine or benzine, which in comparison to these substitutes is nearly harmless, is hard to distinguish from the latter. Only chemists with special experience in these products are able to do so. For this reason Lewin and many others have demanded prohibition of the manufacture of such injurious substances. In addition, the manufacturers of these substitutes continually change the fancy names under which they place them on the market, whereby the workmen are prevented from knowing the nature of the products worked up by them. The sense of smell generally employed by the workmen in distinguishing between turpentine and its substitutes is being deceived by the use of perfumes; likewise the coloring, which serves as a characteristic in the distinguishing between the good French and the more common Russian turpentine, can not be used as a means to detect substitutes.

Quick-drying paints are most in use in the shipbuilding industry. In the case of ships undergoing repair, the renovated rooms must be made usable as soon as possible, therefore the faster one coat of paint can be applied after the other, the better. The painting of the ship is to prevent rust and to keep the ship bottom clear of barnacles. A thin layer of resin which is flexible and elastic and does not become brittle is best suited for this purpose. For this reason paints are given preference which consist of solutions of resin and volatile oils or hydrocarbons of petroleum and of coal tar; also, the so-called silicate paints, as well as light coal tar, which, in an impure state, contains solid and fluid hydrocarbons and particles of resin.

Work with the above-mentioned paints is most dangerous in the lower closed rooms of the ship, in the so-called chain locker, double bottoms, coal hole, afterpeak, engine hold, floor heads, etc. The double bottoms, running through the whole ship, consist of individual narrow cabins, mostly not higher than 1 meter (3.28 feet) and about  $1\frac{1}{2}$  meters (4.92 feet) long, which are connected through manholes; a manhole in the first and the last cabin leads into the open air. The double bottoms are as a rule protected against the influence of humidity by a layer of cement or asphalt. Usually so-called "solution," a very dangerous quick-drying paint, is applied as a priming coat. Tennack or verra cement is frequently used in place of cement. According to Schäfer tennack is probably coal-tar asphalt. Under various names, such as patent paints, ship paints, solution,

siderosthen, black varnish oil, etc., the above-mentioned very dangerous paints, and on account of the nature of their use annoying to the workmen, are not only used in painting double bottoms, but also for other closed rooms, such as floor heads, ballast tanks, chain lockers, etc. So-called enamel paints are used in painting cabins and cargo holds. Silicate paints are being used for the painting of coal bunkers and other rooms in which the paints should dry viscously. These paints are less dangerous and less annoying to workers. The same substances which are used for the painting of watertight parts of ships are also being recommended for the painting of the inside of boilers and tanks. The danger for the painters is, of course, equally great.

Complaints as to the noxious effects of hydrocarbons and investigations of the factory inspectors relating thereto date back as far as 1898. During 1905 and 1906 accidents became more frequent, and one of them, in the port of Hamburg, caused the death of a workman. The principal symptoms of injurious effects caused by the inhaling of the carbohydrogen gases that develop during painting in closed rooms are stupor, headache, inclination to cough, acid eructations, a buzzing noise in the ears, vertigo, intoxication, tremor, and convulsions. In serious cases workmen without previous signs of warning have become unconscious and remained in this state for hours; even death may result. Exposure to fresh air usually causes these symptoms of poisoning to disappear. Frequently it has happened that workmen who were working in narrow rooms of the ships, hard of access, were stupefied by these gases and were at first not missed and were rescued from their dangerous situation, more or less injured, only through accident or through the aid of specially equipped rescue crews.

Under the pressure of frequent accidents and owing to the efforts of the painters' union, protective regulations were issued in Hamburg in 1897. The Hamburg Shipowners' Association, the Hamburg Accident Insurance Association of the Building Trades, and the Accident Insurance Association of the Northwestern Iron and Steel Industry in which ships' painters and scrapers are generally insured issued either special regulations or incorporated suitable provisions in their general safety regulations. Finally, in February, 1900, the government of Hamburg issued the following instructions to the shipping inspector (Hafen-inspektor) of Hamburg:

**INSTRUCTIONS RELATING TO THE STORING AND USE IN THE HARBOR OF INJURIOUS AND INFLAMMABLE SHIP PAINTS.**

In order to prevent danger to the life and health of workmen employed in the painting of ships, the shipping inspector shall see to it that the following provisions for the storage and use of ship paints are enforced in the harbor:

Injurious and inflammable ship paints must be stored in strong, tight containers, with solid, tightly closing covers or stoppers. The containers must be provided with



a warning indicating the dangerous nature of the contents, and on board ships they may not be stored in the vicinity of the ship boilers or in other heated places. The rooms in which they are stored in ships must, if possible, have direct daylight. If these rooms are dark, they may be entered only with closed lamps, and never with an open light. The emptying and decanting of such dangerous paints may be effected only on the upper deck, and in the case of inflammable paints must take place remote from any open fire and during daytime. Paints containing arsenic may not be used in painting inside rooms, and inflammable paints may not be used in painting completely closed rooms, such as water and ballast tanks, double bottoms, coal holes, afterpeaks, and other rooms insufficiently ventilated whenever paints injurious to the health are being used in inside rooms; these rooms must be aired before and during work with such paints. During work with inflammable paints smoking or the use of open lights is prohibited.

In 1902 and 1903, in issuing their safety regulations, the Hamburg Accident Insurance Association for the Building Trades and the Maritime Accident Insurance Association incorporated regulations similar to those issued by the Hamburg Government. A decree of January 17, 1906,<sup>1</sup> of the Prussian minister of commerce and industry calls attention to the danger in painting steam boilers with tar oils of great volatility and contains an energetic warning against it. Several serious accidents, among which was a fatal one in Altona and one in Berlin, gave occasion for the issuance of that decree.

The above-described dangers exist not only in ship painting, but also in all other branches of the painting trade. In these the dangers to the health of the workmen are not so great and frequently not noticeable, because the work is generally done in well-ventilated rooms; but this does not mean that in these branches of the trade the use of volatile turpentine substitutes is not dangerous. Owing to the War painters have not been able to obtain turpentine for over two years, and very questionable substitutes are being used now for benzine and benzol also. The consequent extraordinarily great use of bad and injurious materials has considerably increased the sphere of dangers, while the various new substitutes brought continuously on the market under fancy names can not be controlled as to their composition. This is impossible; first, on account of the present scarcity of specialists in certain branches of chemistry in the official laboratories, and even in the imperial health office; and second, because of the overburdening of these laboratories with work relating to the control of the food supply, etc.

Conditions with respect to the use of turpentine substitutes, which had improved owing to several preventive measures, became worse again during the preceding year and just recently. The federation of painters and varnishers and the various factory inspection offices and medical authorities repeatedly received reports as to serious and even fatal accidents. A petition of the painters' federation to the

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<sup>1</sup> Ministerial-Blatt der Handels- und Gewerbeverwaltung, Berlin, 1906, p. 77.



imperial department of the interior, the imperial health office, and the imperial navy office, submitted in September, 1916, had the result that the accidents were investigated and that a conference was held in March, 1917, in the Hamburg city hall, in which representatives of the three imperial departments mentioned above, and of the Hamburg factory inspection service, the Hamburg senate, the largest private shipyards, and the painters' federation took part. The result of this thorough discussion, which was preceded by an inspection of the Hamburg shipbuilding yards, was a decree based on proposals of the painters' federation and issued in pursuance of articles 120 c and 120 d of the Industrial Code. A copy of this decree has lately been transmitted to all factory inspectors. Its text is as follows:

**REGULATIONS FOR THE PAINTING OF CLOSED ROOMS IN SHIPS.**

(Issued in pursuance of articles 120 c and 120 d of the Industrial Code.)

1. While being painted ship rooms which have no direct opening into the fresh air and can be entered only through manholes or narrow hatches, such as double-bottoms, bunkers, shaft tunnel, floor heads, coal holes, afterpeak, water tanks, etc., are to be aired continuously through an effective ventilator which must draw in the air direct from the open. The air tubes leading into these rooms must be sufficiently wide.

Persons working in these rooms shall be prohibited from willful stoppage of the ventilator under penalty of a fine or immediate discharge.

Compressed air may be used for the airing of these rooms only during rest periods.

2. Workmen at work in such rooms are to be relieved as often as necessary, but at least after each half hour's work, and may return to work in these rooms only after another half hour has elapsed. During the period of relief they may be employed only in the open air.

During the hot season such painting shall be performed only at night or during the early morning hours.

3. At all such painting work a man known to be reliable shall be charged with the supervision of the workmen. Not more than two adjoining working places shall be put under his supervision. He shall be held responsible for the relief in due time of the workmen and for the proper operation of the ventilator. He shall not be allowed to quit his post in the immediate vicinity of the working places until he is relieved or all workmen have left the rooms assigned to them, and shall be required to ascertain in person each time before work is begun whether the ventilator operates efficiently. He shall be notified of his duties in writing and shall sign such notification.

4. Workmen employed at such painting work shall be informed that painting in narrow ship rooms with certain paints and mixtures may become injurious and even cause death if the safety measures ordered are not conscientiously complied with. It shall also be impressed upon the workmen that they must obey orders implicitly, and that in case of disobedience they will be immediately discharged.

5. In front of freshly painted rooms which have not been locked must be placed warning signs prohibiting the performance of other work in them until the paint vapors have dispersed.

6. These regulations do not apply to painting with plain Portland cement.]

Schäfer, in the above-mentioned publication,<sup>1</sup> points out that in ship painting the regulation of the hours of labor is of as great importance to the painters as their supply of fresh air. He contends that "the worse the working conditions are and the longer the hours of labor the more slowly the system throws off the poison." For this reason he sets up the following requirements:

1. The workmen shall be permitted to interrupt their work in closed rooms by suitable rest periods.

2. The inside rooms of ships in which quick-drying paints are to be applied shall be sufficiently aired before, during, and after work.

3. No open light shall be burned in these rooms while painting is going on.

4. Facilities for washing shall be provided in the place where working for all persons using injurious paints.<sup>1</sup>

5. The workmen shall be required to make use of the facilities for washing.

6. Smoking and the drinking of alcoholic beverages shall be prohibited.

7. In case of serious poisonings oxygen shall immediately be administered.

8. Fixtures and containers used in the sale and storage of injurious and inflammable painting materials must be tightly closing and have attached a warning notice of the dangerous nature of their contents.

All paints manufactured with low-boiling-point distilled products of petroleum, light coal tar, turpentine, carbon bisulphide, or similar substance, shall be considered as injurious to health.

Male workers under 18 years of age and female workers shall not be allowed to work with quick-drying paints.

It also seems expedient to make it compulsory for physicians to report to the authorities cases of poisoning from hydrocarbons or of similar poisonings.

All the measures enumerated here will, however, bring results only if the workmen themselves use the greatest possible care to escape injury. In other words, the workmen must cooperate with the employer and the authorities in their efforts to limit the danger of poisoning to a minimum.

#### HOOKWORM DISEASE AMONG THE MINERS OF CALIFORNIA.<sup>2</sup>

The March, 1918, Monthly Bulletin of the California State Board of Health contains an article on "Hookworm, a communicable and compensable disease," by Prof. Charles A. Kofoid, consulting biologist,

<sup>1</sup> See p. —.

<sup>2</sup> Summarized from "Hookworm, a communicable and compensable disease," by Prof. Chas. A. Kofoid, consulting biologist, and Prof. W. W. Cort, associate biologist, in California State Board of Health Monthly Bulletin, March, 1918, pp. 405-414.

California State Board of Health, and Prof. W. W. Cort, associate biologist. From this article it appears that California is the only State in the Union which is carrying on an organized campaign against hookworm disease among miners. In an effort to prevent its introduction into mines which are still uninfected and to complete its eradication in mines where it has gained a foothold, five agencies are working in cooperation, namely, the California Metal Producers Association, the Industrial Accident Commission of the State of California, the State Compensation Insurance Fund, the Federal Bureau of Mines, and the California State Board of Health.

The authors state that hookworm disease, called also "miners' anemia," is both communicable and compensable. Already it is prevalent in some mines and there is danger of its introduction from the Orient; scattered cases have been reported among orientals in California and it may be much more general than is recognized. Though large areas of the State are protected from the spread of the disease by dryness of climate or by sanitary conditions of living, places having uniformly high temperatures are in danger of its development and much of southern California falls directly within the hookworm belt. The constant spread of irrigation and the employment of oriental labor are mentioned as other factors favorable to its development, as are also the uniform conditions of temperature and humidity in certain types of mines.

Hookworm disease has long been known in the mines of Europe, and in the United States it has been reported from mines in Nevada, North Carolina, Tennessee, Kentucky, West Virginia, and California. Probably it is present in other States. Effective campaigns against it have been carried on in a number of the mining regions of Europe; in 10 years Germany reduced the infection in 30,000 miners from over 30 per cent to less than 1 per cent.

It has been found that hookworm is introduced and spread in mines by soil pollution with the feces of infected persons, and any underground worker in a contaminated mine is in danger of contracting the disease, either by taking the larvæ into the mouth with food or water or by having the dirt containing larvæ come in contact with the skin. A single stool from a heavily infected person may contain 30,000 to 40,000 hookworm eggs.

The possibility of the introduction of hookworm infection into mines and its spread among miners may be appreciated from the following facts quoted from the article:

1. Hookworm disease is present in many of the countries from which miners come to the United States.
2. In many mines proper latrines or closets are not installed underground and often even where they are present, the mine may still be polluted by careless individuals.

3. Many miners are constantly shifting from mine to mine throughout the mining regions of the West.

4. The uniform conditions of high temperature and humidity in many mines are favorable to the development of the hookworm larvae.

5. Eggs and larvae may be spread by running water in the mines.

6. The darkness of the mine tends to increase the danger of contact with sources of infection in polluted mines.

7. The underground miner's work brings him in frequent contact with the soil of the mine.

The disease may be prevented, according to the authors, by the rigid enforcement of proper sanitary conditions and it may be eradicated, where already existing, by inspection and certification of all men entering the mine employ and the prompt cure of those found to be infected. In connection with the campaign for its eradication the State board of health offers fecal examination for hookworm diagnosis free of charge to anyone in California, and large numbers of miners are taking advantage of this. If the examination shows that the disease is present, a notification card is sent to the infected person; if the examination is negative, a certificate so stating, and good for one year, is sent instead.

It is pointed out that sanitary measures that will prevent soil pollution will be effective in preventing the introduction of this disease to a mine, but that certain practical difficulties invariably are encountered in the installation and maintenance of underground toilets. When closets suited to the conditions are installed and well kept, their use by the men remains a matter of discipline, the general rule being that disregard of the regulations against nuisance will be followed by summary discharge. In cases of dereliction experiments have shown that several pounds of common salt deposited on the ground after cleaning will kill hookworm larvae and prevent infection.

Several pages of the report are devoted to descriptions and illustrations of simple and sanitary underground toilets.

## WELFARE WORK.

### FOOD OF MUNITION WORKERS AND INDUSTRIAL CANTEENS IN GREAT BRITAIN.

The British Health of Munition Workers' Committee in October, 1917, issued as Memorandum No. 19,<sup>1</sup> a revised edition of its Memorandum No. 11,<sup>2</sup> which gave the results of an investigation of workers' food, and contained suggestions as to dietary. The revised report, besides reproducing the greater part of Memorandum No. 11, gives suggestions as to the substitution of one food for another, the object being the replacing of bread, and to a less extent, meat, with other foods.

The following table taken from the memorandum shows the quantities in which foods can be substituted and the amount of protein present in each specified quantity of the foods named. Each of these quantities yields approximately one-tenth of the fuel value required daily by a worker doing moderately heavy work.

QUANTITY OF FOOD REQUIRED TO FURNISH ONE-TENTH OF THE FUEL VALUE REQUIRED BY A WORKER DOING MODERATELY HEAVY WORK, AND AMOUNT OF PROTEIN CONTAINED IN EACH QUANTITY OF FOOD.

| Article of food.         | Quantity required to yield one-tenth of total fuel value needed by worker. | Amount of protein contained in each quantity of food. | Article of food.                              | Quantity required to yield one-tenth of total fuel value needed by worker. | Amount of protein contained in each quantity of food. |
|--------------------------|--|---|---|--|---|
|                          | <i>Ounces.</i>   | <i>Ounce.</i>   |   | <i>Ounces.</i>   | <i>Ounce.</i>   |
| Margarine.....           | 1½   | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1        | Barley flour.....                             | 3  | 1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1        |
| Bacon.....               | 2  |   | Maize meal.....                               | 3  |   |
| Pork.....                | 3  |   | Bread.....                                    | 4  |   |
| Cheese.....              | 3  |   | Meat (free from bone).....                    | 5  |   |
| Oatmeal.....             | 3  |   | Syrup, jam, marmalade...                      | 5  |   |
| Sugar.....               | 3  |   | Milk.....                                     | 16   |   |
| Split peas or beans..... | 3  |   | Eggs.....                                     | 24   |   |
| Lentils.....             | 3  |   | Potatoes (20 per cent allowed for waste)..... | 17   |   |
| Rice.....                | 3  |   |   |  |   |
| Flour.....               | 3  |   |   |  |   |

<sup>1</sup> Fluid ounce.

<sup>2</sup> Number of eggs.

The above table shows that to secure equal fuel value, 3 ounces of maize meal can be substituted for 5 ounces of meat, though the 3 ounces of meal yield only one-third of the body-building substance,

<sup>1</sup> Great Britain. Ministry of Munitions. Health of Munition Workers' Committee. Memorandum No. 19, Investigation of Workers' Food and Suggestions as to Dietary. A second appendix to Memorandum No. 3 (Industrial Canteens). Revised edition. London, October, 1917. 12 pp.

<sup>2</sup> A review of Memorandum No. 11 appeared in the January, 1917, issue of the MONTHLY REVIEW, pp. 56, 57. This memorandum was preceded by two others, Nos. 3 and 6, reviewed in the May, 1916 (p. 69), and the June, 1916 (p. 91), issues of the MONTHLY REVIEW, respectively.



or protein, present in 5 ounces of meat. On the other hand, 3 ounces of cheese, split peas, or lentils yield not only as much fuel value as 5 ounces of meat, but also as much protein.

The report warns that in substituting one food for another, care should be taken that the daily diet shall contain about 4 ounces of protein.

Taking as a standard the 3,500 calories required daily by a male munition worker, the welfare and health section of the Ministry of Munitions made an analysis of food served during one week by 15 hostels and canteens feeding approximately 17,000 munition workers. This analysis showed that the average daily number of calories contained in the food served by these hostels ranged from 2,183 to 4,446. In only three was the dietary seriously deficient.

The memorandum states that a voluntary war ration of 4 pounds of bread, 2½ pounds of meat, and one-half pound of sugar per week had been set by the food controller as an average ration for the whole nation, and continues:

In the days before the War, bread, meat, and sugar made up two-thirds of the food of the nation, the other third coming from milk, butter, or margarine, cheese, fish, potatoes, vegetables, and fruit. We see, then, how important the three rationed foods are. Now the voluntary ration of bread, meat, and sugar, together with a little fresh vegetable or fruit, would by itself be ample to feed old, bedridden people, and young children, but it is not enough for workers. Those engaged in sedentary occupations (clerks, tailors, brain workers, etc.) require enough of other foods to double the energy value of the ration; so do active children over 10 years of age. Women doing moderately heavy work need two and one-half times, men and very active boys three times the energy value of the ration. Workers doing heavy labor require three and one-half times. Some doing very heavy work even four times the energy value of the ration. It is clear, then, that if the sedentary workers are to carry out the food controller's instructions and eat less than the ration of bread, and manual workers are to keep as close to the ration as possible, large amounts of other foods must be eaten. Therefore, since before the War, bread, meat, and sugar made up two-thirds of the food, and the other foods only one-third, it is clear that to carry out the ration other and new sources of food supply must be forthcoming. These may be used either to substitute bread, or to increase the supply of breadstuffs. The latter is most economic for it saves time and fuel in cooking. It also least disturbs the national habit. Fortunately there is a supply in the oats and maize, peas, beans, and potatoes on which domestic animals are fed; also the barley which has partly gone to make beer and partly to feed domestic animals. The country produces abundant stocks of grass, hay, straw, and roots for feeding the animals. Horses used for pleasure can be put out to grass, and their oats saved for man. Cattle can be killed as young beef, and the maize and other concentrated foods hitherto used for overfattening reserved for man. Pigs and fowls can be fed on food which man can not eat. Thus the shortage of wheaten flour can be made good by foods of equal value which can help to make the loaf. Bread has hitherto formed one-third of the food of the nation; with some butter, margarine, or fat, and fresh vegetables, it is enough to sustain life and keep up the worker's energy. The bread supply can be maintained by adding the maize, oat, and barley meal to the wheaten flour, and this is the policy of the wheat commission. It is difficult for workers who live in tenements, and go out to work in factories, to cook foods. In towns like Glasgow and



Dundee a large proportion of the population live in tenements. Thus the need for canteens at munition works is imperative.

The need for munition canteens is shown by the fact, emphasized in the report, that up to October, 1917, canteen provision had been made for only about 45 per cent of the munition workers, and that the very existence of certain factories essential to armament has depended upon proper canteen arrangements.

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#### DUTIES OF WELFARE SUPERVISORS FOR WOMEN, GREAT BRITAIN.

A leaflet issued in May, 1918, by the Ministry of Munitions<sup>1</sup> defines the duties of welfare supervisors or employment superintendents. It is stated that the experience obtained in both national and other factories making munitions of war has proved that the post of welfare supervisor is a valuable asset to factory management wherever women are employed. Through this channel attention is called to and improvements made in unsatisfactory conditions of labor. It is further stated that it may be found advisable to allow the employment superintendent to work into these duties gradually, having due regard to the size of the factory and her professional ability in relation to the scope of the duties assigned her. This officer is responsible solely to the firm that employs her and not to the Ministry of Munitions.

The following notes, which are reprinted in full, are designed to guide those employers who have not previously employed such officers but who wish to know the duties and authority which might be delegated to a welfare supervisor:

##### POSITION.

It has generally been found convenient that the welfare supervisor should be directly responsible to the general manager, and should be given a definite position on the managerial staff in connection with the labor employment department of the factory. She is thus able to refer all matters calling for attention direct to the general manager, and may be regarded by him as a liaison between him and the various departments dealing with the women employees.

##### DUTIES.

The duty of a welfare supervisor is to obtain and to maintain a healthy staff of workers and to help in maintaining satisfactory conditions for the work.

In order to obtain a staff satisfactory both from the point of view of health and technical efficiency, it has been found to be an advantage to bring the welfare supervisor into the business of selecting women and girls for employment.

#### THE OBTAINING OF A HEALTHY STAFF.

Her function is to consider the general health, physical capacity, and character of each applicant. As regards those under 16 years of age, she could obtain useful advice as to health from the certifying surgeon when he grants certificates of fitness. The management can, if they think fit, empower her to refer for medical advice to their panel doctor other applicants concerning whose general fitness she is in doubt. This

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<sup>1</sup> Great Britain. Ministry of Munitions. Duties of welfare supervisors for women. M. M. 13 (revised).

selection of employees furnishes the welfare supervisor with a valuable opportunity for establishing a personal link with the workers.

Her function is thus concerned with selection on general grounds, while the actual engaging of those selected may be carried out by the overlooker or other person responsible for the technical side of the work. In this way both aspects of appointment receive full consideration.

The management may find further that it is useful to consult the welfare supervisor as to promotions of women in the factory, thus continuing the principle of regarding not only technical efficiency but also general considerations in the control of the women in the factory.

#### THE MAINTAINING OF A HEALTHY STAFF.

The welfare supervisor should ascertain what are the particular needs of the workers. These needs will then be found to group themselves under two headings:

- (a) Needs within the factory—Intramural welfare.
- (b) Needs outside the factory—Extramural welfare.

#### INTRAMURAL WELFARE.

##### SUPERVISION OF WORKING CONDITIONS.

The welfare supervisor may be made responsible for the following matters:

(a) *General behavior of women and girls inside the factory.*—While responsibility for the technical side of the work must rest with the technical staff, the welfare supervisor should be responsible for all questions of general behavior.

(b) *Transfer.*—The welfare supervisor would, if the health of a woman was affected by the particular process on which she is engaged, be allowed, after having consulted the foreman concerned, to suggest to the management the possibility of transfer of the woman to work more suited to her state of health.

(c) *Night supervision.*—The welfare supervisor should have a deputy for night work and should herself occasionally visit the factory at night to see that satisfactory conditions are maintained.

(d) *Dismissal.*—It will be in keeping with the general suggestions as to the functions of the welfare supervisor if she is consulted on general grounds with regard to the dismissal of women and girls.

(e) *The maintenance of healthy conditions.*—This implies that she should, from the point of view of the health of the female employees, see to the general cleanliness, ventilation, and warmth of the factory and keep the management informed of the results of her observations.

#### CANTEEN.

Unless the factory is a small one it would hardly be possible for the welfare supervisor to manage the canteen. The management will probably prefer to intrust the matter to an expert who should satisfy the management in consultation with the welfare supervisor on the following matters:

(1) That the canteen provides all the necessary facilities for the women workers; that is to say, suitable food, rapidly and punctually served.

(2) That canteen facilities are provided when necessary for the women before they begin work so that no one need start work without having taken food.

(3) That the canteen is as restful and as comfortable as possible so that it serves a double purpose of providing rest as well as food.

#### SUPERVISION OF AMBULANCE REST ROOM AND FIRST AID.

While not responsible for actually attending to accidents, except in small factories, the welfare supervisor should work in close touch with the factory doctor and nurses. She should, however, be responsible for the following matters:

(1) She should help in the selection of the nurses, who should be recognized as belonging to the welfare staff.

(2) While not interfering with the nurses in the professional discharge of their duties, she should see that their work is carried out promptly and that the workers are not kept waiting long before they receive attention.

(3) She should supervise the keeping of all records of accidents and illness in the ambulance room.

(4) She should keep in touch with all cases of serious accident or illness.

It would further be useful if she were allowed to be kept in touch with the compensation department inside the factory with a view to advising on any cases of hardship that may arise.

#### SUPERVISION OF CLOAKROOMS AND SANITARY CONVENIENCES.

The welfare supervisor should be held responsible for the following matters:

(1) General cleanliness.

(2) Prevention of loitering.

(3) Prevention of pilfering.

The management will decide what staff is necessary to assist her, and it should be her duty to report to the management on these matters.

#### PROVISION OF OVERALLS.

The welfare supervisor should have the duty of supervising the protective clothing supplied to the women for their work.

#### EXTRAMURAL WELFARE.

The welfare supervisor should keep in touch with all outside agencies responsible for:

(1) Housing.

(2) Transit facilities.

(3) Sickness and maternity cases.

(4) Recreation.

(5) Day nurseries.

In communicating with any of these agencies it will no doubt be preferable that she should do so through the management.

#### RECORDS.

A. The welfare supervisor should for the purpose of her work have some personal records of every woman employee. If a card-index system is adopted a sample card suggesting the necessary particulars which it is desirable should be kept by welfare supervisors is supplied to employers on request.

B. The welfare supervisor should have some way of observing the health in relation to the efficiency of the workers, and if the management approved this could be done:

(a) By allowing her to keep in touch with the wages department. She could then watch the rise and fall of wages earned by individual employees from the point of view that a steady fall in earnings may be the first indication of an impending breakdown in health.

(b) By allowing her to keep in touch with the time office she should be able to obtain records of all reasons for lost time. From such records information can be obtained of sickness, inadequate transit, and urgent domestic duties, which might otherwise not be discovered. Here again, if a card-index system is adopted a sample card for this purpose can be obtained from the welfare and health section on request.

(c) By keeping records of all cases of accident and sickness occurring in the factory. Sample ambulance books and accident record cards can also be obtained from the welfare and health section.

## ARBITRATION AND CONCILIATION.

### CONCILIATION WORK OF THE DEPARTMENT OF LABOR, MAY 15 TO JUNE 14, 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 May 15, 1918, and June 14, 1918, in 198 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918.

| Name.  | Workmen affected. |             | Result.  |
|--|-------------------|-------------|--|
|  | Directly.         | Indirectly. |  |
| Strike, American Steel Co., Waynesburg, Pa.....  | 108               | 220         | Pending.   |
| Controversy, Wheeling Traction Co., Panhandle Co., and Steubenville, Wellsburg & Weirton Ry., and electricians, Wheeling, W. Va. | 600               | 100         | Adjusted.  |
| Controversy, West Virginia Traction & Electric Co. and City Railway Co. and electricians, Wheeling, W. Va.                       | 150               | 450         | Adjusted.  |
| Controversy, Wheeling Electric Co. and Wheeling Traction Co. and engineers, Wheeling, W. Va.                                     | 10                | .....       | Adjusted.  |
| Controversy, West Virginia Traction Co. and engineers, Wheeling, W. Va.  | 6                 | .....       | Adjusted.  |
| Threatened strike, clerks, Ducommun Hardware Co., Los Angeles, Cal.  | 35                | 83          | Adjusted.  |
| Strike, Eddy Valve Co., Waterford, N. Y.....   | 42                | 250         | Adjusted.  |
| Threatened strike, metal polishers, Standard Aeroplane Co., Elizabeth, N. J.   | 12                | 2,000       | Pending.   |
| Controversy, Atha Tool Co., Newark, N. J.....  | .....             | .....       | Pending.   |
| Strike, teamsters, Cincinnati, Ohio.....   | 72                | .....       | Various companies involved will use parcel post, thereby reducing number of teamsters and chauffeurs required. |
| Strike, cooks and waiters, Cincinnati, Ohio.....   | 282               | .....       | Strike lost; employers having secured all the labor needed.  |
| Strike, cigar makers, Tampa, Fla.....  | 9,450             | .....       | Adjusted.  |
| Strike, carpenters, Mississippi Ship Bldg. Co., Biloxi, Miss..   | 200               | .....       | Adjusted.  |
| Strike, carpenters, Coast Ship Bldg. Co., Biloxi, Miss.....  | 250               | .....       | Adjusted.  |
| Controversy, Hartford & N. Y. Transportation Co., New York and Hartford, Conn.   | .....             | .....       | Adjusted.  |
| Controversy, Terre Haute, Indianapolis & Eastern Traction Co. and employees, Terre Haute, Ind.                                   | 200               | 300         | Adjusted.  |
| Threatened strike, Schenectady Street Railway Co., Schenectady, N. Y.  | 450               | .....       | Adjusted.  |
| Strike, teamsters and truck drivers, Chicago, Ill.....   | 5,000             | .....       | Adjusted.  |
| Controversy, American Gas & Electric Co. and firemen, Beach Bottom, W. Va.   | 27                | 550         | Adjusted.  |
| Strike, Turner Tanning Machine Co., Peabody, Mass.....   | 146               | 270         | Adjusted.  |
| Strike, American Locomotive Co., Schenectady, N. Y.....  | 170               | 250         | Adjusted.  |
| Strike, miners, Holdred Colliery Co., Blair, W. Va.....  | 75                | .....       | Adjusted.  |
| Strike, plumbers and steam fitters, Waterbury, Conn.....   | 198               | .....       | Adjusted.  |
| Strike, meat packers and butchers, East Side Packing Co., E. St. Louis, Ill.   | 100               | 250         | Adjusted.  |

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918—Continued.

| Name.   | Workmen affected. |             | Result.   |
|---|-------------------|-------------|---|
|   | Directly.         | Indirectly. |   |
| Threatened strike, East St. Louis & Suburban Traction Co., East St. Louis, Ill.           | 600               | .....       | Referred to National War Labor Board.   |
| Controversy, Estate Stove Co. and Stove Mounters' International Union, Hamilton, Ohio.    | 40                | .....       | Referred to National War Labor Board.   |
| Controversy, Master Painters' Association and journeymen painters, Indianapolis, Ind.     | 41                | 600         | Referred to National War Labor Board.   |
| Threatened strike, Baker Mfg. Co., Saratoga, N. Y.  | 112               | 350         | Adjusted.   |
| Controversy, Toledo Machine & Tool Co., Toledo, Ohio.                                     | 550               | 200         | Adjusted.   |
| Strike, pipe fitters and cranimen, Western Steel Car & Foundry Co., Chicago, Ill.         | 69                | 2,100       | Adjusted prior to commissioner's arrival.   |
| Strike, Olds Motor Works, Lansing, Mich.  | 90                | 18          | Adjusted.   |
| Strike, potash workers, Caseyville, Ill.  | 45                | .....       | Demand of men for increase in wages refused. A few of the men returned to work and the plant is in operation. |
| Strike, cigar makers, Cincinnati, Ohio.   | 700               | .....       | Adjusted.   |
| Threatened strike, American Clay Machinery Co., Bucyrus, Ohio.                            | 200               | 400         | Adjusted.   |
| Controversy, Midvale Steel Co. and metal polishers, Eddystone, Pa.                        | 250               | 12,000      | Pending.  |
| Controversy, machinists, Rochester, N. Y., at—  |                   |             |   |
| Symington Machine Co.   | 400               | 1,000       | Pending.  |
| American Laundry Co.  | 350               | .....       | Pending.  |
| U. S. Naval Gun Factory and Optical Annex.  | 125               | 575         | Pending.  |
| Bastonia Co.  | 15                | 45          | Adjusted.   |
| Controversy, Melvin Bros. and Banner Pattern Works, Columbus, Ohio.                       | 21                | .....       | Adjusted.   |
| Walkout, Columbian Paper Co., Bristol, Tenn.  | 140               | .....       | Pending.  |
| Strike, teamsters, Hammond, Ind.  | 140               | 700         | Adjusted.   |
| Threatened strike, electrical workers, Northern Indiana Gas & Electric Co., Hammond, Ind. | 32                | 85          | Referred to National War Labor Board.   |
| Controversy, Hercules Gas Engine & Buggy Co., Evansville, Ind.                            | 10                | 640         | Adjusted.   |
| Threatened strike, General Electric Co. and metal trades, Schenectady, N. Y.              | 6,000             | 12,000      | Pending.  |
| Controversy, Baker Iron Works and carpenters and helpers, Los Angeles, Cal.               | 30                | 75          | Adjusted.   |
| Threatened strike, Alberger Pump & Condenser Co., Newburgh, N. Y.                         | 225               | 175         | Adjusted.   |
| Controversy, lead burners, Nitro, W. Va.  | .....             | .....       | Pending.  |
| Controversy, Minneapolis Steel & Machinery Co. and machinists, Minneapolis, Minn.         | .....             | .....       | Pending.  |
| Threatened strike, Willys-Overland Co., Elyria, Ohio.                                     | 1,000             | 550         | Referred to National War Labor Board.   |
| Controversy, Paving Contractors' Association, Chicago, Ill.                               | .....             | .....       | Pending.  |
| Strike, Hall-Hartwell & Co., Cohoes, N. Y.  | 87                | .....       | Pending.  |
| Threatened strike, Pullman Car Co., Ludlow, Ky.   | 146               | .....       | Adjusted pending decision of Director General of Railroads.   |
| Controversy, Virginia & Truckee Railway Co., Nevada.                                      | 130               | .....       | Adjusted.   |
| Threatened strike, electricians, Wheeling Mold. & Fdy. Co., Wheeling, W. Va.              | 2                 | 14          | Adjusted.   |
| Controversy, electrical workers, Emporium Building, San Francisco, Cal.                   | .....             | .....       | Pending.  |
| Controversy, Western Electric Co., Boston, Mass.  | .....             | .....       | Pending.  |
| Strike, Scranton Railway Co., Scranton, Pa.   | 600               | 200         | Referred to National War Labor Board.   |
| Threatened strike, ice drivers and helpers, Pittsburgh, Pa.                               | 400               | 20          | Adjusted.   |
| Strike, office clerks, Bay City, Mich.  | 23                | .....       | Pending.  |
| Controversy, electrical workers and various employers, Cleveland, Ohio.                   | 400               | .....       | Pending.  |
| Strike, Monarch Telephone Mfg. Co., Fort Dodge, Iowa.                                     | 60                | 50          | Adjusted.   |
| Controversy, Morgan Engineering Co. and electrical workers, Alliance, Ohio.               | 20                | .....       | Adjusted.   |

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918—Continued.

| Name.  | Workmen affected. |             | Result.  |
|--|-------------------|-------------|--|
|  | Directly.         | Indirectly. |  |
| Controversy, Hydraulic Pressed Steel Co. and electrical workers, Cleveland, Ohio.  | 40                |             | Commissioner reported that controversy is between union and nonunion labor, in which company is not interested.  |
| Walkout, Phoenix Mfg. Co., Eau Clair, Wis.   |                   |             | Pending.   |
| Controversy, Willow Springs Beverage Co., Fred Krugs Products Co., Storz Beverage & Ice Co., and Omaha Beverage Co. and various unions, Omaha, Nebr.                               | 250               | 750         | Adjusted.  |
| Strike, bakers, General Baking Co., Jersey City, N. J.   | 30                | 90          | Adjusted.  |
| Controversy, Niagara Electro Chemical Co. and Polish workmen, Niagara Falls, N. Y.   | 125               | 150         | Adjusted.  |
| Strike, molders, Lowell and Graniteville, Mass.  | 198               | 150         | Adjusted.  |
| Strike, Chicago Steel Foundry Co., Chicago, Ill.   | 18                | 200         |  |
| Controversy, Kentucky Wagon Works, Louisville, Ky.   | 10                | 1,990       | Plant working with full complement of men. Company claimed services of men no longer needed, but would reemploy them if pipe fitters were required.                  |
| Controversy, Eagle Mfg. Co., Appleton, Wis.  |                   |             | Pending.   |
| Controversy, International Gas Engine shop of the Worthington Pump Co., Cudahy, Wis.   |                   |             | Pending.   |
| Controversy, Fairbanks-Morse Mfg. Co., Beloit, Wis.  |                   |             | Pending.   |
| Controversy, machinists, Oshkosh, Wis.   |                   |             | Pending.   |
| Controversy, Madison French Battery, Madison, Wis.   |                   |             | Pending.   |
| Controversy, Atlantic Works, East Boston, Mass.  |                   |             | Pending.   |
| Threatened strike, Middletown Car Co., Middletown, Pa.   | 1                 | 300         | Adjusted.  |
| Controversy, Savannah & Atlantic R. Co., Savannah, Ga.   |                   |             | Pending.   |
| Threatened strike, fire department employees, Memphis, Tenn.   | 172               | 180         | Adjusted.  |
| Strike, track laborers, Swift stockyards, St. Paul, Minn.  |                   |             | Referred to Minnesota State Board of Arbitration.  |
| Controversy, Joseph Kopperman & Sons and coppersmiths, Philadelphia.   |                   |             | Pending.   |
| Controversy, Northport Smelting & Refining Co. and smelter workers, Northport, Wash.   | 350               |             | Pending.   |
| Controversy, contractors and building trades employees on U. S. R. R. Administration consolidated ticket office, Cleveland, Ohio.  | 48                |             | Adjusted.  |
| Strike, cigar packers and other employees, I. Lewis Cigar Co., Newark, N. J.   | 70                |             | Adjusted.  |
| Strike, leather workers, Benjamin N. Moore & Sons, Peabody, Mass.  | 98                | 130         | Adjusted.  |
| Threatened strike, Sperry Gyroscope Co., Brooklyn, N. Y.   |                   |             | Pending.   |
| Controversy, boiler makers, N. Y.  |                   |             | Pending.   |
| Controversy, Dutchess Mfg. Co. and machine operators, cutters, and pressers, Poughkeepsie, N. Y.   | 200               | 500         | Pending.   |
| Controversy, Eugene Dietzgen Co and employees, Chicago, Ill.   | 250               |             | Commissioner informed by company officials that controversy which existed and conditions complained of had been adjusted a few days prior to commissioner's arrival. |
| Controversy, brick and clay workers and operating companies, Allegany and Garrett Counties, Md.  | 700               |             | Pending.   |
| Controversy, Alstader-Long Co. and Hoover-Owen-Rentschler Co. and pattern makers, Hamilton, Ohio.  |                   |             | Unable to adjust.  |
| Controversy, carpenters, Milwaukee, Wis., at U. S. Aero Propeller Co., Mathews Bros., Conway Door Co., Greiling Bros., 3 ship repair yards, and Building Contractors' Association. |                   |             | Pending.   |



STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918—Continued.

| Name.   | Workmen affected. |             | Result.                                    |
|---|-------------------|-------------|--|
|   | Directly.         | Indirectly. |  |
| Controversy, Government warehouse, Columbus, Ohio . . . . .   |                   |             | Pending.                                   |
| Controversy Kingsport Fiber Co. and pulp, sulphite and paper mill workers, Kingsport, Tenn. . . . .                       |                   |             | Pending.                                   |
| Controversy, American Locomotive Works and cranemen, Dunkirk, N. Y. . . . .   | 70                | 3,500       | Adjusted.                                  |
| Threatened strike, Tredegar Iron Works, Richmond, Va. . . . .   | 112               | 500         | Pending.                                   |
| Controversy, Sterling Products Co. and molders, Evansville, Ind. . . . .  | 200               |             | Adjusted.                                  |
| Controversy, dredgermen, San Francisco, Cal. . . . .  |                   |             | Adjusted.                                  |
| Controversy, Public Service Co., Lima, Ohio . . . . .   |                   |             | Pending.                                   |
| Controversy, metal polishers, Rochester, N. Y.: . . . . .   |                   |             |  |
| Rochester Stamping Co. . . . .  | 40                | 100         | Pending.                                   |
| Taylor Instrument Co. . . . .   | 40                | 150         | Pending.                                   |
| Metal Arts Co. . . . .  | 2                 | 10          | Pending.                                   |
| Bastonia Co. . . . .  | 12                | 50          | Pending.                                   |
| Eastman Kodak Co. . . . .   | 100               | 14,000      | Adjusted.                                  |
| Seneca Co. . . . .  | 6                 | 50          | Adjusted.                                  |
| Strike, Wolf Packing Co., Topeka, Kans. . . . .   |                   |             | Pending.                                   |
| Controversy, mechanical workers of Storey County, Nev. . . . .  | 46                | 10          | Adjusted.                                  |
| Walk out, linemen, Merchants Light & Heat Co., Indianapolis, Ind. . . . .   | 25                | 50          | Adjusted.                                  |
| Controversy, Indianapolis Heat & Light Co. and linemen, Indianapolis, Ind. . . . .  | 50                | 75          | Adjusted.                                  |
| Threatened strike, Wickes Bros. Machine Works, Saginaw, Mich. . . . .   | 90                | 500         | Adjusted.                                  |
| Controversy, Industrial Works and blacksmiths and helpers, Bay City, Mich. . . . .  | 125               | 2,500       | Adjusted.                                  |
| Controversy, Industrial Works and boilermakers and helpers, Bay City, Mich. . . . .                                       | 100               | 2,500       | Adjusted.                                  |
| Controversy, Saginaw Ship Bldg. Co. and employees, Saginaw, Mich. . . . .   | 1,000             |             | Adjusted.                                  |
| Strike, street railway employees, Wilmington, Del. . . . .  | 426               |             | Adjusted.                                  |
| Controversy, Missoula Street Railway Co., Missoula, Mont. . . . .   | 14                | 60          | Pending.                                   |
| Controversy, Rump Hoe Works, Jefferson City, Mo. . . . .  |                   |             | Pending.                                   |
| Controversy, Northern Ohio Traction Co., Akron, Ohio. . . . .   | 60                |             | Adjusted.                                  |
| Threatened strike, Aurora, Elgin & Chicago Electric Co., Ill. . . . .   | 580               | 700         | Adjusted.                                  |
| Threatened strike, metal trades, Baker Iron Works, Los Angeles, Cal. . . . .  | 200               | 300         | Pending.                                   |
| Strike, Corn Products Mfg. Co., Granite City, Ill. . . . .  | 585               | 650         | Adjusted.                                  |
| Strike, pattern makers, American Locomotive Works, Allegheny, Pa. . . . .   | 20                |             | Pending.                                   |
| Strike, plumbers and steam fitters, Rochester, N. Y. . . . .  |                   |             | Pending.                                   |
| Controversy, Pullman Palace Car Co., Wilmington, Del. . . . .   |                   |             | Pending.                                   |
| Controversy, Pollak Steel Co. and blacksmiths, Cincinnati, Ohio. . . . .  | 200               | 1,000       | Referred to National War Labor Board.      |
| Controversy, teamsters, Schenectady, N. Y. . . . .  |                   |             | Pending.                                   |
| Strike, Columbia Ice Co., Chicago, Ill. . . . .   |                   |             | Pending.                                   |
| Strike, Mark Mfg. Co., Chicago, Ill. . . . .  | 1,000             |             | Pending.                                   |
| Controversy, Henry Vogt Machine Co., Louisville, Ky. . . . .  | 500               |             | Adjusted.                                  |
| Controversy, American Locomotive Co. and pattern makers, Schenectady, N. Y. . . . .                                       |                   |             | Adjusted.                                  |
| Controversy, Kewanee Boiler Works, Kewanee, Ill. . . . .  | 215               | 85          | Pending.                                   |
| Threatened strike, Langton Lumber Co., Pekin, Ill. . . . .  | 28                | 32          | Adjusted.                                  |
| Controversy, stationary firemen, Corr Mfg. Co., Taunton, Mass. . . . .  |                   |             | Men returned to work at their own request. |
| Threatened strike, molders, Interstate Foundry Co., Cleveland, Ohio. . . . .  |                   |             | Pending.                                   |
| Controversy, teamsters and chauffeurs, Topeka, Kans. . . . .  |                   |             | Pending.                                   |
| Controversy, Sturtevant Aeroplane Co., Jamaica Plain, Mass. . . . .   |                   |             | Pending.                                   |
| Controversy, Lima Telephone & Telegraph Co., Lima, Ohio. . . . .  |                   |             | Pending.                                   |
| Controversy, Acklin Stamping Co., Toledo, Ohio. . . . .   | 75                |             | Adjusted.                                  |
| Strike, furnace men, Bartlesville, Okla., National Zinc Co., Bartlesville Zinc Co., and Lanyon-Starr Smelting Co. . . . . | 600               | 650         | Pending.                                   |
| Strike, machinists, Wheeling Mold. & Fdy. Co., Wheeling, W. Va. . . . .   | 140               | 300         | Adjusted.                                  |
| Threatened strike, foundries, Detroit, Mich. . . . .  |                   |             | Pending.                                   |
| Controversy, Briggs & Stratton Co., Milwaukee, Wis. . . . .   |                   |             | Pending.                                   |
| Strike, Richards Iron Works, Manitowoc, Wis. . . . .  |                   |             | Pending.                                   |
| Controversy, Jackson Iron & Steel Co., Star Furnace Co., and Globe Iron Co., Jackson, Ohio. . . . .                       |                   |             | Pending.                                   |

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918—Continued.

| Name,  | Workmen affected. |             | Result.  |
|--|-------------------|-------------|--|
|  | Directly.         | Indirectly. |  |
| Controversy, Batavia, Ill. ....  | 550               | 850         | Referred to National War Labor Board.  |
| Emerson, Brantingham Mfg. Co. ....   |                   |             |  |
| Challenge Mfg. Co. ....  |                   |             |  |
| Appleton Mfg. Co. ....   |                   |             |  |
| U. S. Windmill and Pump Co. ....   |                   |             |  |
| D. R. Sperry & Co., North Aurora, Ill. ....  |                   |             |  |
| Controversy, painters, apartment house being constructed by T. W. Butler, Philadelphia. ....                           |                   |             | Adjusted.  |
| Controversy, press feeders, printing plants, Chicago. ....   | 2,200             | 6,000       | Adjusted.  |
| Lockout, Bayliss Pulp & Paper Co., Austin, Pa. ....  | 300               | 75          | Pending.   |
| Threatened strike, New Castle Tin Plate Co., New Castle, Pa. ....  | 1,800             | 3,700       | Pending.   |
| Controversy, Gould & Eberhardt Co. and machinists, Newark, N. J. ....  | 23                | 800         | Pending.   |
| Controversy, waiters and restaurant employees, Philadelphia. ....  |                   |             | Pending.   |
| Controversy, carpenters, Greater Omaha and Benson, Nebr., and Council Bluffs, Iowa. ....                               |                   |             | Pending.   |
| Controversy, Southern Utilities Co., Fla. ....   |                   |             | Pending.   |
| Strike, Valcone Finishing Works, Philadelphia. ....  |                   |             | Pending.   |
| Threatened strike, transportation workers, Bethlehem Steel Co. (Patapsco & Back River R. R.), Sparrows Point, Md. .... | 250               | (1)         | Adjusted.  |
| Strike, street railway employees, Newark, N. J. ....   | 4,000             |             | Referred to National War Labor Board.  |
| Strike, motormen, conductors, and brakemen, Youngstown & Ohio River R. R. Co. ....                                     | 37                | 90          | Adjusted.  |
| Strike, Saxon Motor Co., Toledo, Ohio. ....  | 100               |             | Adjusted.  |
| Strike, Toledo Tool & Machine Co., Toledo, Ohio. ....  | 600               |             | Adjusted.  |
| Controversy, Sloan & Chase Co. and machinists, Newark, N. J. ....  | 1                 | 240         | Company claimed no discrimination against union men; machinist in question discharged for cutting production, for union activities during working hours, and for threatening non-union employees; all admitted by man who was discharged; man permitted to resign. |
| Strike holding up delivery of perishable foods on board ship, Baltimore. ....  |                   |             | Adjusted.  |
| Strike, milk wagon drivers, Detroit, Mich. ....  | 500               |             | Pending.   |
| Strike, Melter Larkin Paving Co., Chicago, Ill. ....   | 35                | 300         | Adjusted.  |
| Lockout, building trades, Ft. Wayne, Ind. ....   | 600               | 8,000       | Adjusted.  |
| Threatened strike, machinists, Philadelphia, Hale & Kilburn, Hess-Bright Co. and Butterworth Co. ....                  |                   |             | Pending.   |
| Strike, grocery clerks, American and Acme Stores, Philadelphia. ....   |                   |             | Pending.   |
| Controversy, Standard Foundry Co., Racine, Wis. ....   |                   |             | Pending.   |
| Strike, Union Railway Co., Bronx, N. Y. ....   | 200               | 500         | Pending.   |
| Strike, Toledo Foundry Co., Toledo, Ohio. ....   | 100               |             | Pending.   |
| Controversy, contract machine shops, Houston, Tex. ....  |                   |             | Pending.   |
| Controversy, Amal. Association of Iron, Steel & Tin Plate Workers. ....  |                   |             | Pending.   |
| Controversy, linemen, shipyard, Bristol, Pa. ....  | 75                |             | Adjusted.  |
| Controversy, Pacific Electric Co. and employees, Los Angeles, Cal. ....  |                   |             | Pending.   |
| Strike, street railway employees, Zanesville, Ohio. ....   | 100               | 8,000       | Adjusted.  |
| Controversy, garment workers, Los Angeles, Cal. ....   |                   |             | Pending.   |
| Strike, National Fuse Co., Newark, N. J. ....  |                   |             | Pending.   |
| Strike, Central Leather Co., Kenosha, Wis. ....  |                   |             | Pending.   |
| Strike, Western Union Overall Mfg. Co., Kansas City, Mo. ....  | 1,800             |             | Pending.   |
| Threatened strike, street railway employees, Chicago and vicinity. ....  |                   |             | Referred to National War Labor Board.  |
| Strike, Breslin Bros. Co., Gloucester City, N. J. ....   |                   |             | Pending.   |
| Controversy, Southern Express Co., Richmond, Va. ....  |                   |             | Pending.   |
| Strike, teamsters, Jackson, Ohio. ....   |                   |             | Pending.   |

<sup>1</sup> All employees at Bethlehem Steel Co., Sparrows Point.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION MAY 15 TO JUNE 14, 1918—Concluded.

| Name.  | Workmen affected. |             | Result.  |
|--|-------------------|-------------|--|
|  | Directly.         | Indirectly. |  |
| Controversy, Baker Bros. Foundry & Machine Co., Toledo, Ohio.  | .....             | .....       | Pending.   |
| Controversy, Willys-Overland Co. and machinists, Toledo, Ohio.   | 500               | .....       | Adjusted.  |
| Threatened strike, molders, Cleveland Steel Casting Co., Cleveland, Ohio.                                      | .....             | .....       | Pending.   |
| Strike, Joseph Mayer & Bros., manufacturers of jewelry and instruments for torpedo boats, etc., Seattle, Wash. | 20                | 200         | Adjusted.  |
| Threatened strike, Poole Engineering and Machine Co., Baltimore, Md.   | 1,000             | .....       | Pending.   |
| Strike, A. A. Marks Shop, New York.....  | 27                | 35          | Striking employ-<br>ees accommodat-<br>ed in a new shop<br>at satisfactory<br>wages and condi-<br>tions. |
| Strike, employees of Engineers' Department, Washington, D. C.  | 1,300             | .....       | Adjusted.  |
| Threatened strike, master and journeymen bakers, Wash-<br>ington, D. C.  | 350               | 200         | Adjusted.  |
| Controversy, Iroquois Boiler Works, Buffalo, N. Y. ....  | .....             | .....       | Pending.   |
| Strike, Southwestern Mechanical Co., Fort Worth, Tex. ....   | .....             | .....       | Pending.   |
| Strike, Howe Scales Co., Rutland, Vt. ....   | .....             | .....       | Pending.   |
| Controversy, live stock handlers, stock yards, Fort Worth,<br>Tex.   | .....             | .....       | Pending.   |
| Controversy, W. H. Mullins Co., Salem, Ohio.....   | .....             | .....       | Pending.   |
| Controversy, restaurant workers, Atlantic City, N. J. ....   | .....             | .....       | Pending.   |
| Walkout, Barker Works, Green Bay, Wis. ....  | .....             | .....       | Pending.   |
| Controversy, Werner & Pfeleiderer Co. and molders, Saginaw,<br>Mich.   | .....             | .....       | Pending.   |

Following cases noted as pending in the May statement have been disposed of:

Controversy, Grand Trunk R. R. Co. and station men, Boston, Mass. Matter referred to the Canadian authorities.

Controversy, Burgess Aeroplane Co., Marblehead, Mass. Referred to National War Labor Board.

Controversy, St. Louis Car Co., and carpenters, St. Louis, Mo. Adjusted by National War Labor Board.

Controversy, bituminous miners, Carnegie Mill Mine, Bellaire, Ohio. Matter referred to United States Fuel Administration.

Strike, teamsters and chauffeurs, Denver, Colo. Adjusted.

Strike, longshoremen employed on piers of Old Dominion Steamship Co., Richmond, Va. Men returned to work pending adjustment of their demands.

Strike, inside wiremen, Butte, Mont. Commissioner reports men had about 15 members of union left out of 37 who went on strike, and they were starting a shop of their own.

Controversy, Commonwealth Edison Co. and electrical workers, Chicago. Parties in interest were to meet in Washington, D. C. Commissioner has no information as to result of conference.

Lockout, textile workers, Columbus, Ga. Mills operating; strike called off in Eagle and Phoenix mills.

Strike, bakers and cracker packers, Loose-Wiles Biscuit Co. and Union Biscuit Co., St. Louis, Mo. Strike called off; some of the strikers returned to work and others found employment elsewhere.

Controversy, Susquehanna Coal Co. and miners, Williamstown, Pa. Referred to United States Fuel Administration.

Lockout, Reliable and Model Belt Companies, Chicago, Ill. Mistake by union; firms stopped all work on April 18 to ship stock on hand, etc. When ready to begin work companies wrote to employees to return; some did, and some have returned since, and some have work elsewhere. Both open shops; no present trouble.

Controversy, Landis Tool Co. and six other companies and machinists, Waynesboro, Pa. Referred to National War Labor Board.

Controversy, Bethlehem Steel Co. and electrical workers, Allentown, Pa. Referred to National War Labor Board.

Strike, Hartford-New York Transportation Co., Hartford, Conn. Adjusted.

Strike, Larowe Construction Co., Whitehall, Mont. Adjusted.

Strike, painters, Haner & Fahlsing, Richmond, Ind. Adjusted.

Strike, Continental Can Co., Chicago, Ill. Adjusted.

Strike, electricians and machinists working at Otis Elevator and Pennsylvania freight depot, Chicago. Adjusted.

Controversy, Public Utilities Co. and Association of Commerce, Bloomington, Ill. Adjusted before commissioner's arrival.

Strike, Carrol Foundry and Machine Co. and Ohio Locomotive Crane Co., Bucyrus, Ohio. Adjusted.

Controversy, Midvale Steel Co. and machinists, Philadelphia, Pa. Referred to National War Labor Board.

Controversy, Fire Fighters' Association and city commission, Mobile, Ala. Adjusted.

Controversy, Snow Steam Pump Works and metal trades, Buffalo, N. Y. Referred to National War Labor Board.

Threatened strike, machinists, Trout King Pump Works, Buffalo, N. Y. Referred to National War Labor Board.

Controversy, Ever Ready Light Co., Long Island City, N. Y. Adjusted.

Threatened strike, Chester, Pa. No present trouble.

Controversy, Master Builders' Association and carpenters' union, Erie, Pa. Adjusted by Labor Board of Pennsylvania.

Strike, construction employees affiliated with Cleveland Building Trades, Cleveland, Ohio. Adjusted.

Controversy, Western Instrument Co. and metal polishers, Chicago, Ill. Adjusted.

Controversy, Nordyke & Marmon Co. and machinists, Indianapolis, Ind. Referred to National War Labor Board.

Strike, machinists, Budd Wheel Co., Philadelphia. Referred to National War Labor Board.

Threatened strike, coopers, three firms, Chicago, Ill. Referred to National War Labor Board.

Controversy, linemen, Wheeling, W. Va. Adjusted.

Controversy, Philadelphia Rapid Transit Co. and motormen and conductors, Philadelphia. Referred to National War Labor Board.

Controversy, Western Cold Storage Co., Chicago, Ill. Expected to be brought under Alschuler decision.

Controversy, electricians, Rochester, N. Y. Adjusted.

Controversy, Willys-Overland Automobile Co. and molders, Toledo, Ohio. Adjusted.

Controversy, Toledo Shipbuilding Co. and molders, Toledo, Ohio. Adjusted.

Controversy, Willys-Overland Automobile Co. and electrical workers, Elyria, Ohio. Referred to National War Labor Board.

Controversy, Russell Motor Co. and metal trades, Buffalo, N. Y. Referred to National War Labor Board.

Strike, wire workers, John A. Roebling, Trenton, N. J. Leaders of strike had secured employment elsewhere; strikers returned to work.

Threatened strike, gold and silver miners, Virginia City and Gold Hill, Nev. Adjusted.

Threatened strike, gold and silver miners, Comstock Lode, Nev. Adjusted.

Controversy, Weidmann Co. and others, Paterson, N. J. Adjusted.

Walkout, plasterers, Fort Des Moines, Iowa. Adjusted.

Strike, teamsters, Bloomington, Ill. Adjusted before commissioners' arrival.

Controversy, employers' association and organized labor, Lewistown, Mont. Most of the mechanics have left and are now employed in shipyards and other places.

Strike, barbers, Chicago, Ill. Barbers making settlements every day and do not need intervention of conciliators.

Controversy, canneries and food-packing industries, California. Adjusted.

Strike, teamsters, Great Falls, Mont. Adjusted.

Threatened strike, 55 packing houses, Chicago. Expected to be brought under Alschuler decision.

Strike, Ohio State Telephone Co., Youngstown, Ohio. Adjusted.

Strike, Scranton Bolt & Nut Works, Scranton, Pa. Adjusted.

Controversy, New England Fuel & Transportation Co. and International Union of Steam and Operating Engineers, Boston, Mass. Strikers employed elsewhere, and new employees at company's yard giving satisfaction.

Controversy, Bakers' and Confectioners' Union No. 16, and master bakers, Buffalo, N. Y. Adjusted.

Controversy, Standard Boiler Plate Co. and boiler makers, East St. Louis, Ill. Boiler makers have secured other work and are now employed.

Strike, street railway employees, Rochester, N. Y. Adjusted.

Controversy, University of Michigan and electricians, Ann Arbor, Mich. Referred to Board of Regents.

## STRIKES AND LOCKOUTS.

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### STRIKES AND LOCKOUTS IN THE UNITED STATES, JANUARY TO MARCH, 1918.

According to information received by the United States Bureau of Labor Statistics, 710 strikes and lockouts occurred in this country during the first quarter of the year 1918. Inasmuch as many reports do not reach the bureau until several months after the strikes occur, the number of strikes occurring during the quarter was probably somewhat larger than the above figure would indicate, possibly approaching 750 in all. Complete data relative to these strikes have not been received by the bureau and it has not been possible as yet to verify what have been received. The figures in the following tables should therefore be understood to be only an advance statement and not to be considered as final.

The number of strikes in March exceeded those in either of the preceding months of the quarter. The list of long-continued strikes is comparatively short. Many of the larger strikes were in industries closely identified with war activities, and for that reason attracted considerable public attention. Compared with the 3,000 strikes that occurred during the first six months following the entrance of this country into the present war, the 710 strikes and lockouts of the first quarter of 1918 show a diminution in strike activity of about 50 per cent.

The largest strike of the quarter was the general strike in Kansas City, where 25,000 workers in various branches of industry went out in sympathy with the laundry drivers. A strike fever seemed to visit St. Louis at about the same time, and nearly as many workers deserted their posts for various reasons. Other large strikes were in the clothing industries, where in New York 1,100 workers on boys' blouses and shirts struck in January, 3,000 waist makers in February, and 8,000 tailors in March; also 5,000 garment workers struck in Chicago and 2,000 uniform makers in Baltimore. Next in importance probably were the strikes of the carpenters and shipbuilders in the vicinity of New York City, Philadelphia, and Baltimore. There were many short strikes in the mines of Pennsylvania, Kansas, and Alabama; 16,000 cigarmakers struck in New York City and Florida, 9,000 sugar-cane laborers in Porto Rico, 5,000 retail clerks in St. Louis, 2,000 molders and pattern makers in Boston, and 1,200 long-shoremen in New York City.



The data in the following tables relate to the 686 strikes and 24 lockouts reported to have occurred in the three months under consideration. A few strikes that occurred during the quarter, but in which the exact month was not stated, appear in a group by themselves.

STATES IN WHICH 10 OR MORE STRIKES AND LOCKOUTS WERE REPORTED AS OCCURRING DURING THE FIRST QUARTER OF 1918.

| State.               | January. |           | February. |           | March.   |           | Month not stated. |           | Total.   |           | Grand total. |
|----------------------|----------|-----------|-----------|-----------|----------|-----------|-------------------|-----------|----------|-----------|--------------|
|                      | Strikes. | Lockouts. | Strikes.  | Lockouts. | Strikes. | Lockouts. | Strikes.          | Lockouts. | Strikes. | Lockouts. |              |
| New York.....        | 45       | 2         | 51        | 2         | 50       | 3         | 1                 |           | 147      | 7         | 154          |
| Washington.....      | 10       | 1         | 24        |           | 33       |           | 2                 |           | 69       | 1         | 70           |
| Pennsylvania.....    | 18       |           | 21        | 1         | 16       |           | 2                 |           | 57       | 1         | 58           |
| Massachusetts.....   | 13       |           | 14        | 1         | 18       | 1         |                   |           | 45       | 2         | 47           |
| Illinois.....        | 14       | 1         | 5         |           | 14       |           | 1                 |           | 34       | 1         | 35           |
| Ohio.....            | 6        | 1         | 8         | 1         | 14       |           | 2                 | 1         | 30       | 3         | 33           |
| Missouri.....        | 2        |           | 8         |           | 19       | 1         | 1                 |           | 30       | 1         | 31           |
| New Jersey.....      | 3        |           | 10        |           | 15       | 1         | 2                 |           | 30       | 1         | 31           |
| California.....      | 11       |           | 5         |           | 6        |           | 1                 |           | 23       |           | 23           |
| Maryland.....        | 3        |           | 4         |           | 10       |           |                   | 1         | 17       |           | 18           |
| Colorado.....        | 3        |           | 3         |           | 6        |           |                   | 1         | 13       |           | 14           |
| Connecticut.....     | 5        | 2         |           |           | 7        |           |                   |           | 12       | 2         | 13           |
| Michigan.....        | 3        | 1         | 3         |           | 5        |           |                   | 1         | 12       | 1         | 13           |
| Kansas.....          | 1        |           | 6         |           | 4        |           |                   |           | 11       |           | 11           |
| Rhode Island.....    | 3        |           | 2         |           | 6        |           |                   |           | 11       |           | 11           |
| Florida.....         | 2        |           | 7         | 1         | 1        |           |                   |           | 10       | 1         | 11           |
| Indiana.....         | 2        |           | 2         |           | 6        | 1         |                   |           | 10       |           | 11           |
| Iowa.....            | 1        |           | 4         |           | 5        |           |                   |           | 10       |           | 10           |
| Maine.....           | 1        |           | 1         |           | 6        |           | 2                 |           | 10       |           | 10           |
| Texas.....           | 7        |           | 1         |           | 1        |           | 1                 |           | 10       |           | 10           |
| 23 other States..... | 26       |           | 30        | 1         | 39       |           |                   |           | 95       | 1         | 96           |
| Total.....           | 179      | 8         | 209       | 7         | 281      | 7         | 17                | 2         | 686      | 24        | 710          |

Of these disputes 419 strikes and 20 lockouts occurred east of the Mississippi and north of the Ohio and Potomac rivers; 214 strikes and 3 lockouts west of the Mississippi, and the remaining 53 strikes and 1 lockout south of the Ohio and Potomac rivers and east of the Mississippi.

As to cities, New York City had the largest number of disturbances—109 strikes and 6 lockouts. Other cities in which there were 10 or more were St. Louis, with 22 strikes; Philadelphia, with 14 strikes; Baltimore, 14 strikes and 1 lockout; Chicago, 12 strikes and 1 lockout; Kansas City, 10 strikes and 1 lockout; Denver, 10 strikes, and Boston, 9 strikes and 1 lockout.

As to sex, the distribution was as follows: Males, 522 strikes and 19 lockouts; females, 60 strikes and 1 lockout; both sexes, 20 strikes; not reported, 84 strikes and 4 lockouts.

The industries in which 10 or more strikes and lockouts were reported were as follows.

## NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED INDUSTRIES REPORTED AS OCCURRING DURING THE FIRST QUARTER OF 1918.

| Industry.                    | January. |            | February. |            | March.   |            | Month not stated. |            | Total.   |            | Grand total. |
|------------------------------|----------|------------|-----------|------------|----------|------------|-------------------|------------|----------|------------|--------------|
|                              | Strikes. | Lock-outs. | Strikes.  | Lock-outs. | Strikes. | Lock-outs. | Strikes.          | Lock-outs. | Strikes. | Lock-outs. |              |
| Clothing.....                | 31       | 1          | 26        | 3          | 29       | 1          | 2                 | 1          | 88       | 6          | 94           |
| Metal trades.....            | 21       | 3          | 30        |            | 35       | 1          | 6                 |            | 92       | 4          | 96           |
| Lumber.....                  | 8        |            | 20        |            | 32       |            | 1                 |            | 61       |            | 61           |
| Building trades.....         | 17       | 1          | 12        | 1          | 22       | 2          | 3                 |            | 54       | 4          | 58           |
| Textiles.....                | 14       |            | 8         |            | 21       |            | 1                 |            | 44       |            | 44           |
| Teaming.....                 | 8        |            | 12        |            | 15       |            |                   |            | 35       |            | 35           |
| Mining.....                  | 7        |            | 16        |            | 9        |            |                   |            | 32       |            | 32           |
| Shipbuilding.....            | 2        |            | 15        |            | 10       |            |                   |            | 27       |            | 27           |
| Railroads.....               | 5        |            | 7         |            | 6        |            | 2                 |            | 20       |            | 20           |
| Iron and steel.....          | 7        |            | 3         |            | 8        |            |                   |            | 18       |            | 18           |
| Tobacco.....                 | 2        |            | 9         |            | 5        |            |                   |            | 16       |            | 16           |
| Tailoring.....               | 4        |            | 3         |            | 8        |            |                   |            | 15       |            | 15           |
| Street railways.....         | 3        |            | 5         |            | 7        |            |                   |            | 15       |            | 15           |
| Printing and publishing..... | 7        |            | 1         |            | 4        | 1          | 1                 |            | 13       | 1          | 14           |
| Telegraph and telephone..... | 2        |            | 4         | 1          | 5        |            |                   |            | 11       | 1          | 12           |
| Miscellaneous.....           | 38       | 3          | 33        | 2          | 62       | 2          | 1                 | 1          | 134      | 8          | 142          |
| Not reported.....            | 3        |            | 5         |            | 3        |            |                   |            | 11       |            | 11           |
| Total.....                   | 179      | 8          | 209       | 7          | 281      | 7          | 17                | 2          | 686      | 24         | 710          |

Included in the above are 9 strikes of carpenters, 9 of electrical workers, 12 of plumbers and steam fitters, 34 of machinists, and 25 of molders. Ninety strikes and 3 lockouts were in industries directly connected with the War.

In 471 strikes and 21 lockouts the employees were reported as connected with unions; in 32 strikes they were not so connected; in 9 strikes they were not connected with unions at the time of striking, but were before the strike was finished; in 174 strikes and 3 lockouts the question of union affiliation was not reported. In 58 strikes the employees were reported as members of the I. W. W.

In 368 strikes the number of persons was reported to be 276,492, an average of 751 per strike. In 50 strikes, in each of which the number involved was 1,000 or more, the strikers numbered 215,280, thus leaving 61,212 involved in the remaining 318 strikes, or an average of 192 each. By months, the figures are as follows: In January, 40,616 strikers in 89 strikes, average 456; of whom 16,561 were in 78 strikes of less than 1,000 persons each, averaging 212 per strike. In February, 105,501 strikers in 114 strikes, average 925; of whom 19,601 were in 96 strikes of less than 1,000 persons each, averaging 204 per strike. In March, 118,813 strikers in 161 strikes, average 738 each; of whom 24,488 were in 142 strikes of less than 1,000 persons each, averaging 172 per strike. In 6 lockouts the number reported to have been involved was 3,146, of which one included 3,000 persons.

The following table shows the causes of the strikes and lockouts in so far as reported. In about 55 per cent of the disturbances the question of wages or hours was prominent; in about 14 per cent the question of the recognition of the union in some way was involved.

PRINCIPAL CAUSES OF STRIKES AND LOCKOUTS REPORTED AS OCCURRING DURING THE FIRST QUARTER OF 1918.

| Cause.   | January. |            | February. |            | March.   |            | Month not stated. |            | Total.   |            | Grand total. |
|--|----------|------------|-----------|------------|----------|------------|-------------------|------------|----------|------------|--------------|
|  | Strikes. | Lock-outs. | Strikes.  | Lock-outs. | Strikes. | Lock-outs. | Strikes.          | Lock-outs. | Strikes. | Lock-outs. |              |
| For increase in wages.....                       | 65       | 2          | 92        | 1          | 103      | 1          | 3                 | .....      | 263      | 4          | 267          |
| Because of decrease of wages.....                | 1        | .....      | 1         | .....      | 6        | .....      | .....             | .....      | 8        | .....      | 8            |
| Nonpayment of wages.....                         | 1        | .....      | .....     | .....      | .....    | .....      | .....             | .....      | 1        | .....      | 1            |
| Because of increase of hours.....                | .....    | 1          | 2         | .....      | 1        | .....      | .....             | .....      | 3        | 1          | 4            |
| For decrease of hours.....                       | 6        | .....      | 11        | .....      | 15       | .....      | 1                 | .....      | 33       | .....      | 33           |
| For increase of wages and decrease of hours..... | 13       | .....      | 9         | .....      | 16       | .....      | 1                 | .....      | 39       | .....      | 39           |
| General conditions.....                          | 6        | .....      | 1         | .....      | 5        | .....      | 1                 | .....      | 13       | .....      | 13           |
| Conditions and wages.....                        | 1        | .....      | 2         | .....      | 6        | .....      | .....             | .....      | 9        | .....      | 9            |
| Recognition of the union.....                    | 11       | 1          | 11        | 4          | 28       | .....      | 1                 | .....      | 51       | 5          | 56           |
| Recognition and wages.....                       | 2        | .....      | 9         | .....      | 10       | .....      | .....             | .....      | 21       | .....      | 21           |
| Recognition and hours.....                       | .....    | 2          | 2         | .....      | 1        | .....      | .....             | .....      | 3        | .....      | 3            |
| Recognition, wages, and hours.....               | 3        | .....      | 3         | .....      | 10       | .....      | .....             | .....      | 16       | .....      | 16           |
| For discharge of objectionable person.....       | 4        | .....      | 1         | .....      | 13       | .....      | .....             | .....      | 18       | .....      | 18           |
| Because of employees discharged.....             | 16       | 1          | 23        | .....      | 19       | .....      | 1                 | .....      | 59       | 1          | 60           |
| Nonunion men present.....                        | 2        | .....      | 2         | .....      | .....    | .....      | .....             | .....      | 4        | .....      | 4            |
| In regard to agreement.....                      | 6        | .....      | 2         | .....      | 3        | .....      | .....             | .....      | 11       | .....      | 11           |
| Sympathy.....                                    | 3        | .....      | .....     | .....      | 3        | .....      | .....             | .....      | 6        | .....      | 6            |
| Jurisdiction.....                                | .....    | 3          | .....     | .....      | 3        | .....      | .....             | .....      | 6        | .....      | 6            |
| Unsatisfactory food served.....                  | 5        | .....      | 2         | .....      | 1        | .....      | .....             | .....      | 4        | .....      | 4            |
| Miscellaneous.....                               | 1        | 1          | 10        | .....      | 12       | 1          | .....             | .....      | 23       | 2          | 25           |
| Not reported.....                                | 33       | 2          | 23        | 2          | 28       | 5          | 9                 | 2          | 93       | 11         | 104          |
| Total.....                                       | 179      | 8          | 209       | 7          | 281      | 7          | 17                | 2          | 686      | 24         | 710          |

In 545 strikes and 19 lockouts only one employer was concerned in each disturbance; in 13 strikes and 2 lockouts, 2 employers; in 10 strikes, 3 employers; in 4 strikes, 4 employers; in 5 strikes, 6 employers; in 72 strikes and 2 lockouts, more than 5; in 37 strikes and 1 lockout the number was not reported.

It is difficult in the majority of cases to state exactly when a strike terminates. Nonunion employees rarely declare a strike at an end. They return to work individually or by groups or secure employment elsewhere, or the employer slowly fills their places. Some unions are lax in this particular also, though the effort is made by the general officials of the national organizations to have strikes officially declared terminated. The following figures relate to such strikes as the bureau has been advised actually terminated during the quarter:

Eighty-two strikes and 1 lockout ended in January, 93 strikes and 1 lockout ended in February, and 128 strikes and 4 lockouts ended in March, or 303 strikes and 6 lockouts during the quarter. Of these, 121 strikes and 3 lockouts terminated in favor of the employees—34 strikes and 1 lockout in January, 33 strikes and 1

lockout in February, and 54 strikes and 1 lockout in March; 36 strikes terminated in favor of the employers—13 in January, 9 in February, and 14 in March; 78 strikes and 1 lockout were compromised—15 strikes in January, 20 in February, and 43 strikes and 1 lockout in March. In 25 strikes and 1 lockout the men returned to work under promise of the employer to arbitrate the matter in dispute—6 strikes in January, 14 in February, and 5 strikes and 1 lockout in March. In the remaining 43 strikes and 1 lockout the result was not reported.

Twenty-three strikes—6 in January, 11 in February, and 6 in March—were declared illegal by the union officials, who repudiated the action of the men in striking, not only refusing to grant them any aid, but urging them to return, in two or three instances even threatening them with loss of their charter if they disobeyed. In several other strikes reported as lost, the union officials persuaded the men to return, loyalty to their country in time of war being the argument most frequently used.

The duration of 269 strikes and 5 lockouts was given as follows:

DURATION OF STRIKES REPORTED AS OCCURRING DURING THE FIRST QUARTER OF 1918.

| Period.            | January. |            | February. |            | March.   |            | Total.   |            | Grand total. |
|--------------------|----------|------------|-----------|------------|----------|------------|----------|------------|--------------|
|                    | Strikes. | Lock-outs. | Strikes.  | Lock-outs. | Strikes. | Lock-outs. | Strikes. | Lock-outs. |              |
| 1 day or less..... | 7        | 1          | 5         | .....      | 13       | .....      | 25       | 1          | 26           |
| 2 days.....        | 8        | .....      | 16        | 1          | 19       | 1          | 43       | 2          | 45           |
| 3 days.....        | 12       | .....      | 12        | .....      | 17       | 1          | 41       | 1          | 42           |
| 4 days.....        | 6        | .....      | 5         | .....      | 6        | .....      | 17       | .....      | 17           |
| 5 to 7 days.....   | 11       | .....      | 15        | .....      | 16       | .....      | 42       | .....      | 42           |
| 1 to 2 weeks.....  | 6        | .....      | 17        | .....      | 13       | .....      | 36       | .....      | 36           |
| 2 to 3 weeks.....  | 4        | .....      | 8         | .....      | 6        | 1          | 18       | 1          | 19           |
| 3 to 4 weeks.....  | 1        | .....      | 3         | .....      | 5        | .....      | 9        | .....      | 9            |
| 1 to 3 months..... | 4        | .....      | 7         | .....      | 13       | .....      | 24       | .....      | 24           |
| Over 3 months..... | 7        | .....      | .....     | .....      | 7        | .....      | 14       | .....      | 14           |
| Total.....         | 66       | 1          | 88        | 1          | 115      | 3          | 269      | 5          | 274          |

The number of days lost by strikes during the quarter was 4,801. The average duration of these strikes was about 17 days. The average duration of strikes lasting less than 90 days was 10 days. By months the record is as follows: January, days lost, 1,720, average 26 days, 11 days in cases of strikes lasting less than 90 days; February, days lost, 842 days, average 10 days, no strike lasting more than 90 days; March, days lost, 2,239, average 19 days, 11 days in cases of strikes lasting less than 90 days. In the 5 lockouts 29 days were lost.

# IMMIGRATION.

## IMMIGRATION IN MARCH AND APRIL, 1918.

The number of immigrant aliens admitted into the United States during the year 1917, as compared with the number admitted during the year 1916, decreased 56.9 per cent. During 1917 the decrease from the preceding month for January, February, and March was 19.9, 22.3, and 19.4 per cent, respectively. For April, however, the number of immigrant aliens admitted showed an increase of 32.3 per cent over the number admitted in March. As compared with April, the figures for May showed a decrease of 48.9 per cent. The figures for June indicated an increase of 5.5 per cent over those for May. During July only 9,367 immigrant aliens were admitted. As compared with the figures for July, those for August showed an increase of 7.3 per cent. In September the number fell to 9,228, or 139 smaller than the number admitted in July. As compared with August, the figures for September showed a decrease of 8.2 per cent. In October there was an increase over the September arrivals of 57, or 0.6 per cent. The admissions in November numbered only 6,446, a decrease of 30.6 per cent from the number admitted in October. In December there was an increase of 8.4 per cent. In January, 1918, there was a decrease of 9 per cent as compared with December, 1917. February, however, showed an increase over January of 16.2 per cent; March as compared with February showed a decrease of 11.9 per cent, while April showed an increase over March of 46.6 per cent.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS,  
1913 TO APRIL, 1918.

| Month.         | 1913    | 1914    | 1915   | 1916   | 1917   | 1918    |   |
|----------------|---------|---------|--------|--------|--------|---------|---|
|                |         |         |        |        |        | Number. | Per cent increase over preceding month. |
| January.....   | 46,441  | 44,708  | 15,481 | 17,293 | 24,745 | 6,356   | 19.0                                    |
| February.....  | 59,156  | 46,873  | 13,873 | 24,740 | 19,238 | 7,388   | 16.2                                    |
| March.....     | 96,958  | 92,621  | 19,263 | 27,586 | 15,512 | 6,510   | 111.9                                   |
| April.....     | 136,371 | 119,885 | 24,532 | 30,560 | 20,523 | 9,541   | 46.6                                    |
| May.....       | 137,262 | 107,796 | 26,069 | 31,021 | 10,487 | .....   | .....                                   |
| June.....      | 176,261 | 71,728  | 22,598 | 30,764 | 11,095 | .....   | .....                                   |
| July.....      | 138,244 | 60,377  | 21,504 | 25,035 | 9,367  | .....   | .....                                   |
| August.....    | 126,180 | 37,706  | 21,949 | 29,975 | 10,047 | .....   | .....                                   |
| September..... | 136,247 | 29,143  | 24,513 | 36,398 | 9,228  | .....   | .....                                   |
| October.....   | 134,440 | 30,416  | 25,450 | 37,056 | 9,285  | .....   | .....                                   |
| November.....  | 104,671 | 26,298  | 24,545 | 34,437 | 6,446  | .....   | .....                                   |
| December.....  | 95,387  | 20,944  | 18,901 | 30,902 | 6,987  | .....   | .....                                   |

<sup>1</sup> Decrease.

Classified by races, the number of immigrant aliens admitted into the United States during specified periods and in March and April, 1918, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN MARCH AND APRIL, 1918, BY NATIONALITY.<sup>1</sup>

| Nationality.                            | Year ending June 30— |         |         | July, 1917, to April, 1918. | 1918.  |        |
|---|----------------------|---------|---------|-----------------------------|--------|--------|
|   | 1915                 | 1916    | 1917    |                             | March. | April. |
| African (black) .....                   | 5,660                | 4,576   | 7,971   | 4,516                       | 234    | 364    |
| Armenian .....                          | 932                  | 964     | 1,221   | 198                         | 6      | 7      |
| Bohemian and Moravian .....             | 1,651                | 642     | 327     | 62                          | 6      | 2      |
| Bulgarian, Serbian, Montenegrin .....   | 3,506                | 3,146   | 1,134   | 105                         | 4      | 12     |
| Chinese .....                           | 2,469                | 2,239   | 1,843   | 1,397                       | 80     | 79     |
| Croatian and Slovenian .....            | 1,942                | 791     | 305     | 30                          | -----  | 4      |
| Cuban .....                             | 3,402                | 3,442   | 3,428   | 978                         | 55     | 44     |
| Dalmatian, Bosnian, Herzegovinian ..... | 305                  | 114     | 94      | 11                          | 1      | -----  |
| Dutch and Flemish .....                 | 6,675                | 6,443   | 5,393   | 1,855                       | 136    | 171    |
| East Indian .....                       | 82                   | 80      | 69      | 52                          | 2      | 4      |
| English .....                           | 38,662               | 36,168  | 32,246  | 10,129                      | 936    | 1,385  |
| Finnish .....                           | 3,472                | 5,649   | 5,900   | 1,651                       | 82     | 107    |
| French .....                            | 12,636               | 19,518  | 24,405  | 5,481                       | 421    | 689    |
| German .....                            | 20,729               | 11,555  | 9,682   | 1,725                       | 146    | 170    |
| Greek .....                             | 15,187               | 26,792  | 25,919  | 2,462                       | 118    | 181    |
| Hebrew .....                            | 26,497               | 15,108  | 17,342  | 3,267                       | 304    | 167    |
| Irish .....                             | 23,503               | 20,636  | 17,462  | 3,648                       | 335    | 473    |
| Italian (north) .....                   | 10,660               | 4,905   | 3,796   | 890                         | 63     | 114    |
| Italian (south) .....                   | 46,557               | 33,909  | 35,154  | 4,804                       | 88     | 718    |
| Japanese .....                          | 8,609                | 8,711   | 8,925   | 8,286                       | 730    | 954    |
| Korean .....                            | 146                  | 154     | 194     | 146                         | -----  | 2      |
| Lithuanian .....                        | 2,638                | 599     | 479     | 106                         | 13     | 15     |
| Magyar .....                            | 3,604                | 981     | 434     | 30                          | 1      | 3      |
| Mexican .....                           | 10,993               | 17,198  | 16,438  | 4,999                       | 742    | 910    |
| Pacific Islander .....                  | 6                    | 5       | 10      | 10                          | 1      | 2      |
| Polish .....                            | 9,065                | 4,502   | 3,109   | 589                         | 94     | 51     |
| Portuguese .....                        | 4,376                | 12,208  | 10,194  | 2,167                       | 44     | 502    |
| Roumanian .....                         | 1,290                | 953     | 522     | 143                         | 11     | 6      |
| Russian .....                           | 4,459                | 4,858   | 3,711   | 1,207                       | 126    | 154    |
| Ruthenian (Russniak) .....              | 2,933                | 1,365   | 1,211   | 41                          | 4      | 2      |
| Scandinavian .....                      | 24,263               | 19,172  | 19,596  | 7,353                       | 608    | 444    |
| Scotch .....                            | 14,310               | 13,515  | 13,350  | 4,033                       | 389    | 513    |
| Slovak .....                            | 2,069                | 577     | 244     | 29                          | -----  | 5      |
| Spanish .....                           | 5,705                | 9,259   | 15,019  | 5,892                       | 461    | 959    |
| Spanish-American .....                  | 1,667                | 1,881   | 2,587   | 1,740                       | 160    | 170    |
| Syrian .....                            | 1,767                | 676     | 976     | 189                         | 7      | 28     |
| Turkish .....                           | 273                  | 216     | 454     | 18                          | 1      | 1      |
| Welsh .....                             | 1,390                | 983     | 793     | 219                         | 25     | 26     |
| West Indian (except Cuban) .....        | 823                  | 948     | 1,369   | 523                         | 51     | 72     |
| Other peoples .....                     | 1,877                | 3,388   | 2,097   | 253                         | 25     | 31     |
| Total .....                             | 326,700              | 298,826 | 295,403 | 81,154                      | 6,510  | 9,541  |

<sup>1</sup> The total number of departures of emigrant aliens in March was 4,082; in April, 9,437.



## PUBLICATIONS RELATING TO LABOR.

### OFFICIAL—UNITED STATES.

CALIFORNIA.—*Industrial accident commission. Report, from July 1, 1916, to June 30, 1917. Sacramento, 1917. 158 pp.*

This report is noted on pages 165 to 167 of this issue of the MONTHLY LABOR REVIEW.

INDIANA.—*Industrial board. Report, from Sept. 1, 1916, to Sept. 30, 1917. Indianapolis, 1918. 53 pp.*

The report of the department of mines and mining, included in this pamphlet, contains statistics on accidents at mines, noting 66 fatalities and 1,806 nonfatal injuries among the 23,940 employees. This would give a fatality rate of 2.75 per 1,000 employed and an accident rate of 78.2 per 1,000. The fatality rate was the highest since 1898, except in 1907, when it was 2.79 per 1,000 employed. The total wages paid to workers at mines was \$23,567,937.75, or an average of \$984.46 per employee. The production of coal was 363,834 tons for each fatality. Classified by occupation, most of the accidents occurred to drivers (22.7 per cent). That portion of this report dealing with workmen's compensation is noted on page 168 of this issue of the MONTHLY LABOR REVIEW.

MASSACHUSETTS.—*Bureau of statistics. Eleventh annual report on the public employment offices for the 13-month period from Dec. 1, 1916, to Dec. 31, 1917. Public Document No. 80. Boston, 1918. 38 pp.*

This report is noted on pages 143 and 144 of this issue of the MONTHLY LABOR REVIEW.

NEW JERSEY.—*Board of tenement house supervision. Fourteenth report, for the year 1917. Union Hill, 1918. 31 pp. Illustrated.*

States that the activities of the department during the year ending October 31, 1917, were varied in character and in almost every instance largely increased over the preceding year. The number of tenement houses constructed under the supervision of the board was 352, at a cost of \$6,369,000, and furnished living accommodations for 3,350 families, or approximately 16,750 persons. This is a decrease from 1916 of 46.3 per cent in the number of families provided for and of 35.4 per cent in the cost of the buildings. The board caused the erection of fire escapes on 688 old and new tenement houses, an increase of 130 per cent over the preceding year.

— *Department of labor. Report for the year 1917. Union Hill, 1918. 91 pp.*

Includes report of the bureau of hygiene and sanitation which has given attention to welfare standards in industry and has developed certain working practices and standard minimum sanitary regulations for power laundries. These are given in full in the report. The report of the workmen's compensation aid bureau notes 12,382 nonfatal and 361 fatal accidents reported, involving a total compensation cost, in closed cases, of \$1,131,339.04, with an average of \$77.78 paid to injured persons and of \$2,194.44 paid to dependents in fatal cases. Burial expenses amounting to \$26,101.45 were paid in 235 cases, or an average of \$111.07 per case.

TENNESSEE.—*Department of workshop and factory inspection. Fifth annual report, Dec. 1, 1916, to Dec. 31, 1917. Nashville [1918]. 118 pp. Illustrated.*

The portions of this report dealing with woman and child labor and industrial accidents are noted, respectively, on pages 129 to 131 and page 164 of this issue of the MONTHLY LABOR REVIEW.

VIRGINIA (RICHMOND).—*Third annual report of the public employment bureau of the city of Richmond, Va., for the year ending Dec. 31, 1917. Richmond, 1918. 15 pp.*

The following table summarizes the activities of the Richmond public employment office during the three years ending December 31, 1917:

WORK OF RICHMOND, VA., PUBLIC EMPLOYMENT OFFICE DURING THE YEARS ENDING DEC. 31, 1915, 1916, 1917.

| Item.                            | 1915  | 1916  | 1917    |   |
|----------------------------------|-------|-------|---------|---|
|                                  |       |       | Number. | Per cent of decrease from preceding year. |
| Applications from employers..... | 1,909 | 2,954 | 3,184   | 17.8                                      |
| Persons called for.....          | 4,277 | 5,344 | 4,597   | 14.0                                      |
| Positions offered.....           | 3,842 | 6,392 | 5,779   | 9.6                                       |
| Positions filled.....            | 2,179 | 2,846 | 2,482   | 12.8                                      |

<sup>1</sup> Increase.

During 1917, 21.1 per cent of the positions filled were filled by skilled workers, 47.9 per cent by unskilled workers, and 13.8 per cent by domestics. About 35 per cent of those placed were colored persons. The total expense incurred by the bureau was \$1,316.77, or a cost of 53 cents for each position secured.

UNITED STATES.—*United States Shipping Board Emergency Fleet Corporation. Shipyard employment: A place for men to help win the war. Prepared by the Bureau of Vocational Guidance, Division of Education, Harvard University, at the request of the Industrial Service Department of the United States Shipping Board Emergency Fleet Corporation. Washington, 1918. 54 pp. Illustrated.*

This pamphlet describes in detail the variety of occupations in the construction of steel and wooden ships, and is an endeavor to interest workmen who desire to serve their country in shipyards at such work as they are qualified to perform. It suggests that every effort is being made by the industrial service department of the Emergency Fleet Corporation to maintain the best possible living and working conditions in the shipyards and in the communities in which they are situated, in order that workmen may be kept constantly and contentedly at their tasks. Attention is being given to housing facilities, opportunities for athletics and other forms of recreation, to medical attendance and first aid, and to safety work, and accident prevention.

#### OFFICIAL—FOREIGN COUNTRIES.

AUSTRALIA (NEW SOUTH WALES).—*Legislative assembly. Friendly societies, trade-unions, building societies, cooperative societies, and transactions under the Workmen's Compensation Acts, 1910 and 1916. (Report of the registrar for the year 1917.) Sydney, 1918. 20 pp.*

Report of the official transactions of the Friendly societies, trade-unions, and building and cooperative societies in the State during the year 1917, including also the statistics regarding the membership and finances for the year 1916. There were no transactions under the Workmen's Compensation Acts, 1910 and 1916. The number of Friendly societies decreased from 1,862 in 1916 to 1,837 in 1917. Benefits paid to members in 1916 amounted to £412,989 (\$2,009,810.97), of which £172,497 (\$839,456.65) was sick pay, £61,566 (\$299,610.94) was for funeral expenses, and £178,926 (\$870,743.38) was for medical attendance and medicine. The number of trade-unions at the end of 1917 was 236, an increase of 9.8 per cent over 1916. At the close of 1916 the cooperative societies showed profits amounting to £236,470 (\$1,150,781.26) avail-

able for distribution, of which £152,901 (\$744,092.72) was applied to payments of interest on shares and dividends on purchases. The predominant interest allowed was 5 per cent, and the dividend on purchases amounted for 1916 to an average of ls. 7d. (38.5 cents) per £1 (\$4.87).

FRANCE.—*Ministère des Finances. Bulletin de statistique et de législation comparée. Quarante-deuxième année. Mars, 1918. Paris, 1918. 573 pp.*

The statistical bulletin of comparative legislation contains the text of laws and decisions relating to matters under the Ministry of Finance, including a decree instituting, under the Ministry of Labor and Social Welfare, a commission called the superior council of cooperation, which is charged with the study of all questions relating to the development of the cooperative movement; a decree regarding the increase of aid from national funds allowed to homes for the aged; and several decrees governing the sale and use of petroleum.

— *Ministère du Travail et de la Prévoyance Sociale. Statistique générale de la France. Statistique annuelle des institutions d'assistance. Année 1913. Paris, 1917. 141 pp.*

Statistics of charitable institutions in France for 1913. The first part gives reports which could be centralized for the entire country and the second part gives tables of returns by Departments.

GREAT BRITAIN.—*Reports of the chief registrar of Friendly societies, for the year ending 31st December, 1916. Part D, Building Societies. London, 1918. xx, 140 pp. Price 5s.*

— (SCOTLAND).—*Royal Commission on Housing in Scotland. Special report, with relative specifications and plans \* \* \* on the design, construction, materials of various types of small dwelling houses in Scotland. Edinburgh, 1917. 44 pp. Illustrated.*

#### UNOFFICIAL.

ALLEN, LESLIE H. *The workman's home. New York, The American Society of Mechanical Engineers, 1918. 19 pp.*

In the above paper read before a meeting of The American Society of Mechanical Engineers, Worcester, Mass., June 4 to 7, Mr. Allen presents the results of an inquiry by the Aberthaw Construction Co. of Boston to establish the relation between labor turnover and housing conditions. Eight hundred and forty replies were received. Seventeen per cent of the manufacturers replying owned some company houses. Nearly all replied that housing was a benefit to their plant, tended to hold the men, and made them more contented and happy. The following table shows the relation between labor turnover and housing:

RELATION BETWEEN LABOR TURNOVER AND HOUSING.

| Turnover.                  | Percentage of localities reporting adequate housing. | Percentage of localities reporting insufficient housing. |
|----------------------------|--|--|
| Less than 50 per cent..... | 52.5   | 34   |
| 50 to 100 per cent.....    | 21.0   | 35   |
| 100 to 200 per cent.....   | 14.0   | 14   |
| 200 to 300 per cent.....   | 7.0  | 6  |
| 300 to 400 per cent.....   | 3.5  | 3  |
| Over 400 per cent.....     | 2.0  | 3  |

The table indicates that over one-half of the plants reporting turnover which have adequate housing around them have a turnover below 50 per cent, while only one-third of the plants where housing is insufficient report as low a turnover as this.

Combining all plants reporting a turnover of less than 100 per cent, the figures are only slightly in favor of those which have adequate housing; above this point the advantage rests with the well-housed plants.

BARTHOUS, LOUIS. *L'Effort de la Femme Française. Publications du Comité "L'Effort de la France et de ses alliés." "L'Hommage Français."* Paris, Bloud & Gay, 1917. 31 pp.

Reprint of a lecture on the work undertaken by French women during the War, delivered by M. Barthou under the auspices of the committee for lectures on "The effort of France and her Allies." The pamphlet includes an appendix which gives the introduction of M. Barthou to his audience by M. Maurice Barrès, messages received by the organization from the women of Montreal and New York, and other matter.

BREWSTER, EDWIN TENNEY. *Vocational guidance for the professions.* Chicago, Rand McNally & Co., 1917. 211 pp. Illustrated.

In three parts: The general question, the personal problem, and the particular profession, the last of which takes up different professions individually with regard to their requirements and possibilities.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Division of Economics and History. Preliminary economic studies of the War. War administration of the railways in the United States and Great Britain.* By Frank Haigh Dixon and Julius H. Parmelee. New York, Oxford University Press, 1918. 155 pp.

———. *Economic effects of the War upon women and children in Great Britain.* By Irene Osgood Andrews, assisted by Margaret A. Hobbs. New York, Oxford University Press, 1918. 190 pp.

In this monograph the author points out the difficulties and evil results of the hasty influx of women and children into industrial fields vacated by men who had gone into the army, but reaches the conclusion that on the whole the permanent effects are likely to be good.

FISHER, IRVING. *Health and war. Presidential address delivered at the eleventh annual meeting of the American Association for Labor Legislation, in joint session with the American Statistical Association, Philadelphia, Pa., December 27, 1917.* From the *American Labor Legislation Review*, Vol. VIII, No. 1, 1918. New York, M. B. Brown Printing & Binding Co., 1918. 11 pp.

A plea for an increase of study and effort directed toward improving the hygienic conditions under which the large majority live and work. The establishment of health insurance throughout the Nation is strongly urged as one of the necessities for an efficient democracy. The author believes "the labor problem and the health problem really fit one into the other. And we can answer labor's question 'What will the country do for us?' very largely by giving health to labor. The greatest asset of the laboring man is his health." The solution of the problem of industrial discontent, which the author believes will menace the country when the workers return from soldiers' life to the monotony of the shop, will, in his opinion, lie along the line of making the workman genuinely interested in his work. An understanding of the psychology of the workman involving an effort to satisfy his great fundamental human instincts, is one of the lessons which it is hoped the War may teach. "I think that if employers would \* \* \* try to adapt the conditions of work to the needs and yearnings of labor, labor discontent will be diminished far more than by any other method I know of."

LABOR PARTY. *Labor and the new social order. A report on reconstruction.* 1 Victoria Street, London, SW., 1 [1918], 22 pp.

LAPP, JOHN A. *Federal rules and regulations.* Indianapolis, B. F. Bowen & Co., 1918. 1140 pp.

A compilation designed to meet the need of lawyers and business men.

L'OFFICE INTERNATIONAL DU TRAVAIL. *Bulletin. Protection ouvrière nationale.* I—Lois et ordonnances. 15<sup>e</sup> année. No. 8-9, 1916. Paris, Berger-Levrault, 1917.

This number of the Bulletin of the International Office of Labor deals with the national protection of working women, a summary being given of the laws and ordi-

nances on this subject in Germany, the United States, including Federal laws and laws of several States, France, Great Britain, and Ireland, British colonies, Norway, Netherlands, Sweden, and Switzerland. An appendix is devoted to war measures for the protection of working women in the warring countries.

MORIMOTO, KOKICHI, Ph. D. *The Standard of Living in Japan. Johns Hopkins University studies in historical and political science. Series XXXVI, No. 1. Baltimore, Johns Hopkins Press, 1918. 147 pp.*

This study was made during the period 1913 to 1915 by the author while teaching political economy in the Imperial University, Sapparo, Japan. The results of the study show—

that in 1913 in the large cities a normal family of 3.3 units with an income of less than 200 yen [\$99.60] could not maintain existence, and with an income less than 960 yen [\$478.08] could not maintain a standard of efficient living. In the small cities the respective figures are 180 yen [\$89.64] and 860 yen [\$428.28]. In short, the minimum cost of living in Japan (Tokyo) is 960 yen [\$478.08], and the distribution of this expenditure is 336 yen [\$167.33] for food, 96 yen [\$47.81] for clothing, 168 yen [\$83.66] for housing, and 360 yen [\$179.28] for other items. This amount of income, if expended in the most economical way, permits the normal mode and scale of activities adjusted not only to the necessity wants, but also in a slight degree to the decency and comfort wants.

It is noted, however, that at the time of the study the purchasing power of Japanese money in Japan was about twice as much as that of American money in America, making 960 yen [\$478.08] furnish about as good a living in Japan as \$1,000 in America. It is also noted that (1) "The habitual use in Japan of cheap but nutritious foodstuffs such as fish, rice, beans, miso, tofu, and so on, serves to lessen the sum of money expended for food. Cutting down the food expenditure, then, is not so difficult a problem in Japan as it is in America. (2) The apportionment for rent is much less in Japan, and a lower cost of living as a whole is therefore practicable. (3) The common belief that the standard of living in Japan is very much lower than in the United States is not scientifically proved. Probably it is a misconception. (4) The low cost of living does not necessarily mean a low standard of living."

NATIONAL AMALGAMATED UNION OF LABOUR. *Report and balance sheet for quarter ending December 31, 1918. Newcastle-on-Tyne, Richard Mayne, 1918. 88 pp.*

NATIONAL CHILD LABOR COMMITTEE. *Child labor in warring countries, by Anna Rochester. Pamphlet 286 (5c. postpaid). Reprinted from Child Labor Bulletin, Vol. VI, No. 4, February, 1918. 12 pp. Child labor and juvenile delinquency in Manhattan, by Mabel Brown Ellis. Pamphlet 282 (10c. postpaid). Reprinted from Child Labor Bulletin, Vol. VI, No. 3, November, 1917. 43 pp. Physical welfare of employed children, by Florence I. Taylor. Pamphlet 285 (5c. postpaid). Reprinted from Child Labor Bulletin, Vol. VI, No. 4, February, 1918. 12 pp. Thirteenth annual report of the general secretary for the fiscal year ending September 30, 1917. January, 1918. 19 pp. Pamphlet 283 (5c. postpaid). Reprinted from Child Labor Bulletin, Vol. VI, No. 3, November, 1917. 19 pp. Children in agriculture, by Ruth McIntire. Pamphlet 284. New York, 105 East 22d Street, February, 1918. 24 pp. New York, 105 East 22d Street, 1918.*

NATIONAL HOUSING ASSOCIATION. *War housing problems in America. A symposium on war housing, held under the auspices of the National Housing Association, February 25, 1918, Philadelphia. National Housing Association, 105 East 22d St., New York City, 1918. 141 pp.*

The subjects discussed at this symposium were, To what extent shall war workers be housed in temporary barracks—in permanent homes? Shall houses for war workers be rented or sold? Shall we provide for housing many women workers? What is the best way to house the woman worker? Shall we encourage or discourage the "Take a roomer" campaign? There was a pronounced preponderance of opinion at the conference in favor of permanent as against temporary housing.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Sickness insurance or sickness prevention? Research report No. 6, May, 1918. Boston, 15 Beacon Street, 1918. 24 pp.*



— *The Canadian Industrial Disputes Investigation Act. Research report No. 5, April, 1918. Boston, 15 Beacon Street, 1918. 28 pp.*

Contains a brief history of the act since its outgrowth in 1907 from earlier legislation; statistical data showing the effect of its operation, and a summary of the attitude of labor and of employers toward it. An abridged text of the act is given in the appendix.

NEW JERSEY CHAMBER OF COMMERCE. *Bureau of State Research; Police, firemen's, and other local employees pension systems in New Jersey. New Jersey State Research, Consecutive No. 11, 1918. Clinton Building, Newark, N. J. 24 pp.*

An analysis of the benefits, revenues, and methods of financing the New Jersey pension funds for police, firemen, and other local employees, exclusive of teachers. The report was prepared by Mr. Paul Studensky, who directed the investigation, assisted by Mr. Alexander Gourvitch and Mr. R. K. Bissell. Since 1887, when the first pension fund for police was established in Jersey City, some 60 funds have come into existence, covering 3,100 policemen, 2,150 firemen, and about 350 other employees.

— *Teachers' retirement systems in New Jersey: Their fallacies and evolution. New Jersey State Research, Consecutive No. 10, 1918. Clinton Building, Newark, N. J. 48 pp.*

The retirement of teachers in New Jersey is taken care of by two systems—the teachers' retirement fund, established in 1896 and supported by contributions of the teachers, and the thirty-five year service pension, established in 1903 and paid at the expense of the State. As a result of dissatisfaction and criticism actuarial investigations of these systems were made in 1917, and a monograph based on the data collected has been prepared by Mr. Paul Studensky, supervisor of the pension staff of the bureau of state research.

The part of the monograph under review is a historical summary of the teachers' retirement fund, divided as follows: 1. Establishment of retirement fund and its fallacies; 2. Failure of the "1-per-cent fund"; 3. Compulsory clause and the confusion of 1906; 4. Period 1907–1917; 5. The State pension and its effect on the fund. Documents and statistics are presented in appendixes.

The second part, containing an analysis of the present retirement situation, is to appear in a subsequent issue of the same publication.

NEW INTERNATIONAL YEAR BOOK. *A compendium of the world's progress for the year 1917. Frank Moore Colby, editor; Allen Leon Churchill, associate editor. New York, Dodd, Mead & Co., 1918. 797 pp.*

TEXAS STATE FEDERATION OF LABOR. *Proceedings of the twenty-first annual convention held at San Antonio, Tex., March 18–23, 1918. Includes the constitution and laws. San Antonio, 1918. 118 pp.*

UNIVERSITY OF CALIFORNIA PUBLICATIONS IN ECONOMICS. *Collective bargaining and trade agreements in the brewery, metal, teaming, and building trades of San Francisco, Cal. By Ira B. Cross, vol. 4, No. 4, pp. 233–364. May 20, 1918. Berkeley, University of California Press, 1918.*

This study traces briefly the history of the four unions, the practices followed by them being typical of the remaining trades in San Francisco; gives the story of the development of the trade agreements; and presents in detail the terms of those agreements in force in 1915.

— *The conflict of tax laws, by Rowland Estcourt. Vol. 4, No. 3, pp. 115–231. April 2, 1918. Berkeley, University of California Press, 1918.*

The object of this inquiry into the subject of tax laws is "to show that, in view of the trend of economic progress, the lack of harmony between the existing systems of taxation indicates the need for coordination, and that any scheme for remedying the defects, to prove satisfactory, must involve a general consideration of certain vital facts underlying the whole problem of taxation." Part I deals with Preliminary



considerations, Major, and minor taxes, Limitations of jurisdiction, Variations in State taxation, and Evolution of faculty; Part II, Coordination and adjustment, Assessment of taxes, and Collections of taxes.

VANDERVELDE, ÉMILE. *Le socialisme contre l'État. Problèmes d'après-guerre.* Paris, Berger-Levrault, 1918. 174 pp.

In this volume the author has expressed his theories concerning socialism versus the State, as an after-the-war problem, in two parts: The conquest of political power, and The socialization of the means of production.



## SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

*[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the bureau issued prior to July 1, 1912, will be furnished on application.]*

### Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

### Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911; Part I.  
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.  
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the War.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

### Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.

#### Wages and Hours of Labor—Concluded.

- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917. [In press.]

#### Employment and Unemployment.

- Bul. 109. Statistics of unemployment and the work of employment offices in the United States.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States. [In press.]

### Women in Industry.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 122. Employment of women in power laundries in Milwaukee.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 175. Summary of the report on condition of woman and child wage earners in the United States.
- Bul. 176. Effect of minimum-wage determinations in Oregon.
- Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 193. Dressmaking as a trade for women in Massachusetts.
- Bul. 215. Industrial experience of trade-school girls in Massachusetts.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.

### Workmen's Insurance and Compensation (including laws relating thereto).

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
- Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 240. Comparison of workmen's compensation laws of the United States.
- Bul. 243. Workmen's compensation legislation in the United States and foreign countries. [In press.]

### Industrial Accidents and Hygiene.

- Bul. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories.
- Bul. 120. Hygiene of the painters' trade.
- Bul. 127. Dangers to workers from dusts and fumes, and methods of protection.
- Bul. 141. Lead poisoning in the smelting and refining of lead.
- Bul. 157. Industrial accident statistics.
- Bul. 165. Lead poisoning in the manufacture of storage batteries.
- Bul. 179. Industrial poisons used in the rubber industry.
- Bul. 188. Report of British departmental committee on danger in the use of lead in the painting of buildings.
- Bul. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [Limited edition.]
- Bul. 205. Anthrax as an occupational disease.
- Bul. 207. Causes of death by occupation.
- Bul. 209. Hygiene of the printing trades.
- Bul. 216. Accidents and accident prevention in machine building.
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- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 231. Mortality from respiratory diseases in dusty trades. [In press.]
- Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- Bul. 236. Effect of the air hammer on the hands of stonecutters. [In press.]

#### **Conciliation and Arbitration (including strikes and lockouts).**

- Bul. 124. Conciliation and arbitration in the building trades of Greater New York.
- Bul. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements.
- Bul. 139. Michigan copper district strike.
- Bul. 144. Industrial court of the cloak, suit, and skirt industry of New York City.
- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 191. Collective bargaining in the anthracite coal industry.
- Bul. 198. Collective agreements in the men's clothing industry.
- Bul. 233. Operation of the Industrial Disputes Investigation Act of Canada.

#### **Labor Laws of the United States (including decisions of courts relating to labor).**

- Bul. 111. Labor legislation of 1912.
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- Bul. 148. Labor laws of the United States, with decisions of courts relating thereto.
- Bul. 152. Decisions of courts and opinions affecting labor, 1913.
- Bul. 166. Labor legislation of 1914.
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- Bul. 186. Labor legislation of 1915.
- Bul. 189. Decisions of courts affecting labor, 1915.
- Bul. 211. Labor laws and their administration in the Pacific States.
- Bul. 213. Labor legislation of 1916.
- Bul. 224. Decisions of courts affecting labor, 1916.
- Bul. 229. Wage-payment legislation in the United States.
- Bul. 244. Labor legislation of 1917. [In press.]
- Bul. 246. Decisions of courts affecting labor, 1917. [In press.]

#### **Foreign Labor Laws.**

- Bul. 142. Administration of labor laws and factory inspection in certain European countries.

#### **Vocational Education.**

- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
- Bul. 162. Vocational education survey of Richmond, Va.
- Bul. 199. Vocational education survey of Minneapolis.

#### **Labor as Affected by the War.**

- Bul. 170. Foreign food prices as affected by the War.
- Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
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- Bul. 230. Industrial efficiency and fatigue in British munition factories.
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#### **Miscellaneous Series.**

- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 123. Employers' welfare work.
- Bul. 158. Government aid to home owning and housing of working people in foreign countries.
- Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
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- Bul. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
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- Bul. 242. Food situation in Central Europe, 1917.